Massachusetts Department of Conservation and Recreation

THE CITIZEN FORESTER

Urban & Community Forestry Program

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Local Connections: The Evolution of Urban Forestry in Northampton

By **Ashley M. McElhinney & Rick W. Harper**

"The pin oak trees in front of Forbes Library are what drew me to Northampton," Lilly Lombard says, "I thought to myself, 'I want to live in a place with trees like these and a library like this.'" Although, since her move to the vibrant western Massachusetts community 16 years ago, these trees have declined and been removed, Lombard draws inspiration from the municipal forestry program that has gradually emerged over the same period. This new program made it possible for Lombard and 20 other volunteers to plant a new stand of *Quercus coccinea* (scarlet oak) at Forbes Library (Fig.1) and to engage in dozens of other volunteer opportunities each year to grow Northampton's tree canopy.

Figure 1: Lombard and Northampton Tree Warden Rich Parasiliti plant a scarlet oak in front of Forbes Library. Photo: City of Northampton

Presently, the city of Northampton boasts over 11,000 public shade trees, valued at a total of $16 million and providing $1.3 million in yearly energy savings, carbon sequestration, stormwater mitigation, and property value enhancement. Over 100 dedicated volunteers help plant nearly 300 public trees each year.

But of course, Rome was not built in a day. Lombard paints a picture of Northampton circa 2014: no tree warden, no forestry budget, a declining canopy, and a reactive approach to planting and care. The state of the urban forest was especially jarring when compared to the early 20th century, when trees generously adorned the streets. The onset of Dutch Elm Disease prompted the city to remove over 200 elm trees each year in the 1950s; this accounted for much of the urban canopy, which steadily continued its decline into the early years of the 21st century.

Lombard proceeded to meet with the Mayor and every member of City Council, presenting data she had compiled to call attention to these shortcomings, their consequences, and possible solutions. She frequently visited other municipalities to learn about their effective urban forestry policies and programs, even traveling as far as Toronto, Canada. Inspired especially by the neighboring town of Amherst, she aimed to persuade Northampton to appoint a tree warden, conduct a baseline community tree inventory, develop a strategic planting plan, and allocate funds for a proper budget. In four years her vision came to life.

And just as Rome wasn't built in a day, it surely was not built alone. Lombard cites the emergence in 2013 of a group of tree-planting "super volunteers" (later forming the non-profit *Tree Northampton*) that renewed citizen interest in trees, followed by a successful citizen-led sample tree inventory (Fig. 2) in 2014, which became the spark that finally lit the fire. Shortly thereafter, Northampton Mayor David Narkewicz appointed Rich Parasiliti to be the city's tree warden and created the Northampton Public Shade Tree Commission. Parasiliti relies upon his background as a certified arborist in his new role

(Continued on page 2)

Up Ahead:

Local Connections: The Evolution of Urban Forestry in Northampton

(Continued from page 1)

Figure 2: Measuring the diameter of an urban tree as part of a volunteer urban forest inventory effort. Photo: R. Harper

as the Director of Forest Operations in the Department of Public Works' (DPW) to apply the necessary resources needed to encourage the success of Northampton's urban forest (Fig.3). The Public Shade Tree Commission, which Lombard chairs, consists of seven multidisciplinary professionals and helps to advise Parasiliti and Mayor Narkewicz in planning and forming policies to ensure the public shade trees' protection and promotion. It meets twice a month -- more frequently than most city commissions -- and acts as a liaison for the city's residents and businesses, receiving and working to accommodate their questions, concerns, opinions, and other input. To provide further aid is Tree Northampton, now a thriving 501(c)(3) non-profit organization, that collaborates with Parasiliti and the Commission. This volunteer-based group (Fig.4) serves as ecological stewards, not only planting trees, but educating, advocating, and engaging city residents.

Together, Parasiliti, the Commission, and Tree Northampton have made great strides in these past four years. With a $30,000 grant from the state's Department of Conservation and Recreation, Northampton hired Davey Resource Group in 2016 to complete a full inventory of its trees. This provided the city with information concerning the current urban tree canopy composition, health, and value, as well as identified 2,000 potential future planting sites. These results made it possible to plan and employ data-driven, effective management strategies; the team recently completed a 5-year plan in which they specify "priority zones" for planting. These priority zones include addressing downtown heat islands, environmental justice neighborhoods, areas with heavy car or foot traffic, public parking lots, and areas close to community centers, all of which maximize the benefits a shade tree can provide. They also published a comprehensive Tree List and Planting Guide to inform both public and private plantings.

Northampton itself has increasingly become a location where professionals in the tree care industry also come together to expand their network and increase their capacity as professionals. At the seasonal dinner meetings of the Western Chapter of the MA Tree Wardens & Foresters Association, 40 tree care professionals from central and western MA receive updates concerning pest activities and urban forest health, as well as learn about new strategies for managing urban trees. Northampton has also worked closely with the statewide Tree Wardens & Foresters Association to host a recent urban tree planting program, as part of their Professional Development Series (PDS).

Even a successful community-based urban tree management program, however, faces its own assortment of trials. Lombard laid out three of Northampton's challenges: The first is limited nursery stock. There is a finite amount of species that tolerate tough urban conditions, and limited supply makes finding and planting 300 well-suited trees each year a difficult task. To address this challenge, the city is sourcing bare root stock in upstate New York, as well as exploring the creation of a municipal nursery. The second challenge is coordinating with the city's planning department and getting to the planning table at the earliest possible stage so that trees are deliberately and thoughtfully integrated into street design, redesign, and construction. In a recent city planning process related to climate change preparedness, Parasiliti

(Continued on page 3)

Local Connections: The Evolution of Urban Forestry in Northampton

(Continued from page 2)

became part of the core planning team, suggesting the city's growing appreciation of the central role shade trees play in resilience-building. The third challenge is the MA Department of Transportation "Complete Streets" guidelines, created to promote safe and convenient multi-modal travel routes within communities. Lombard remarked that street trees are rarely featured in these guidelines, and that, sadly, the expansion of streets to accommodate bike lanes or the installation or widening of sidewalks, sometimes compromises the space that public shade trees can utilize. Lombard suggests this is a state-wide challenge that may require the coordinated advocacy of many municipal tree commissions and tree wardens.

Challenges aside, Lombard expresses great hope for the future. Northampton just successfully piloted its Neighborhood Tree Planting Program, in which neighborhoods that self-organize and provide volunteer planters can be selected to receive support for the intense planting of up to 25 street trees. Plans to use structural soil and porous pavement for difficult downtown plantings are on the drawing board, pending resource availability. The recent creation of the Division of Forestry, Parks, and Cemetery within Northampton's DPW indicates that the city has fully institutionalized its

Figure 3: Tree warden Richard Parasiliti demonstrates proper tree planting technique at a PDS workshop. Photo: A. McElhinney

Figure 4: Volunteers planting trees downtown Northampton. Photo credit: B. Hathaway

commitment to urban forestry. All signs point to the transition from reactive to proactive tree care.

The rapidly growing level of citizen interest may provide the most hope. The 100+ volunteers who have helped restore and grow the urban canopy demonstrate that care and appreciation for Northampton's public shade trees are now part of the city's culture. Many of these eager individuals were recruited as a result of a door-to-door community-wide recruitment campaign that was started in 2013 by Rob Postel, himself a dedicated and passionate volunteer.

Northampton's website describes its ambitious mission to create, "A tree canopy that supports Northampton's goals of public health, beautification, and economic and environmental sustainability, and resilience in the face of climate change." Between the city's willingness to review past practices and policies, to make institutional and budgetary changes to support a comprehensive forestry program, and to collaborate with citizen volunteers, Northampton's forestry program appears to be well on its way to fulfilling this mission.

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The authors gratefully acknowledge the contributions of Lilly Lombard, Susan Lofthouse, and Richard Parasiliti, Jr.

Species Spotlight—Tree of Heaven, *Ailanthus altissima*

By **Mollie Freilicher,** Community Action Forester, MA-DCR

Leaf (Virginia Tech)

Leaflets showing glandular teeth (NYS IPM Flickr)

With the exotic and invasive insect spotted lanternfly cropping up in locations along the East Coast, we are focusing on tree of heaven (*Ailanthus altissima*) for this month's Species Spotlight. Tree of heaven, also known by its generic epithet "ailanthus," is the preferred host of spotted lanternfly. Being able to identify the tree will help us monitor for spotted lanternfly.

Ailanthus is native to northern China and is one of several species in the *Ailanthus* genus, though it is the only species that will thrive in temperate areas of Europe and North America. It is in the Simaroubaceae, a family comprised mostly of tropical plants.

Like a lot of trees introduced to new areas, tree of heaven has an interesting history. The Jesuit priest Pierre d'Incarville collected and sent ailanthus seed from China to Europe in the 1740s, where it was cultivated in Paris and London. At the time, the tree was mistaken for varnish tree (*Rhus verniciflua*, now *Toxicodendron vernicifluum*) and confusion over the tree continued for several decades. Even scholars within China had a difficult time distinguishing the two trees. Despite the confusion, its fast growth rate, beautiful foliage, and ability to thrive in urban conditions helped boost the popularity of tree of heaven wherever it was planted. (It also helped that chinoiserie was all the craze and this was one of relatively few Chinese plants to come to Europe at the time.)

In 1784, ailanthus was brought to the United States by the plant collector, William Hamilton, of Philadelphia, who also introduced ginkgo (*Ginkgo biloba*), Lombardy poplar (*Populus nigra* 'Italica'), and Norway maple (*Acer platanoides*) to the U.S. That ailanthus could thrive with minimal attention and in poor soil, made the tree attractive and, as a result, it was commonly planted in cities, where it could withstand urban pollution and harsh conditions of city life. By the 1840s, a period of rapid growth of cities in the United States, tree of heaven was widely planted and could be found commonly in the nursery trade in the eastern U.S. By the 1850s, however, gusto for ailanthus was dwindling. Some of the characteristics that enthusiasts had glossed over or ignored, like the malodor of male flowers and the suckering habit, became hard to overlook. Andrew Jackson Downing, American horticulturalist and editor of the publication *The Horticulturalist*, a proponent of ailanthus in the 1840s, changed his tune, writing in *The Horticulturalist* in 1852 "Down with the Ailanthus!" His editorial went downhill from there for the tree. Non-botanically, political relations between the United States and China at the time also contributed to the changing sentiment. The public was divided on ailanthus, with some blaming it for causing health problems like sore throats, nausea, and tuberculosis – ailments most likely related to other urban conditions and not ailanthus. The tree, of course, continued to spread in urban areas, with its fast growth and its windblown seeds and root suckers. The seeds can germinate in poor soil and even in partial shade. Tree of heaven was extensively planted in New York and was immortalized in the 1943 novel, *A Tree Grows in Brooklyn*.

Form (Virginia Tech)

Today, the USDA Forest Service lists ailanthus as a terrestrial invasive plant and in many states, it is classified as a noxious weed. In Massachusetts, ailanthus is on the Prohibited Plant List, which means it is illegal to import or propagate the tree. Like it does in China, ailanthus has some look-

(Continued on page 5)

Species Spotlight—Tree of Heaven, *Ailanthus altissima*

(Continued from page 4)

alikes here, so it is helpful to be able to distinguish it.

Foliage and flowers (Dendroica cerulea, Flickr)

Ailanthus is a medium-to-large tree, that can grow up to 60 feet tall, with a spread often equal to two-thirds of its height. It has a fast growth rate, exceeding six feet a season at times, and is relatively short-lived. It is hardy in USDA hardiness zones four to eight and has naturalized in many parts of the United States.

Ailanthus is alternate, with pinnately compound leaves, up to two feet long, with 13-25 leaflets, three to five inches long. Leaflets are stalked and lance to ovate in shape. Leaflets typically have one or two glandular teeth at the base. Leaflets are dark green in color, smooth above and whitish below. Initially, leaves are bronzy, becoming green. Leaves do not change color in the fall. While ailanthus is alternate, sometimes the leaves can look almost opposite.

Bark (Virginia Tech)

Twigs are stout and lack a terminal bud. Lateral buds are small and leaf scars are large and somewhat shield shaped. Twigs are downy and smell bad when crushed. Bark of ailanthus is fairly distinctive. It is gray, with some lighter longitudinal parts that contrast the gray. (I always think of it as "weird elephant" bark, but that's me.)

Ailanthus is dioecious – with male and female trees – though some trees have both male and female flowers. The flowers are yellowish green and appear in early June, in panicles that may be eight inches to over a foot long. Male flowers do not smell good (Michael Dirr calls the smell "vile.") Female flowers have no smell. The fruit of ailanthus is a one-and-a-half-inch-long samara, about a half-inch wide. Thin and flat, each samara contains one seed.

The generic epithet "ailanthus" comes from the Maluku islands, part of an archipelago of Indonesia. The word in a local language was 'ailanto,' meaning 'tree of heaven,' and described a different species. The French botanist R.L. Desfontaines used the genus *Ailanthus* in 1785 and this became accepted. Wikipedia notes that the Chinese name for the tree, chouchun, literally means 'foul-smelling tree.'

Stem (Virginia Tech)

In our area, ailanthus is often confused with sumac (*Rhus* spp.), because they both have pinnately compound leaves and leaflets that are similar in shape and size. A few differences to note – leaflets of ailanthus have one or two glandular teeth at their base; leaves of sumac do not have these teeth at their base. Ailanthus leaves have smooth margins, while sumac leaves are serrated. Leaves of ailanthus stink when you crush them; leaves of sumac do not. Ailanthus fruits are samaras; sumac seeds are in upright red panicles that persist into winter. When in doubt, there are lots of on online guides, like this one, to help you distinguish them.

Tree of heaven may also become more noticeable when spotted lanternfly does show up and establish itself in Massachusetts. Ailanthus is the preferred host for spotted lanternfly, and they make their preference known. (Yuck.) You can also learn about spotted lanternfly on the USDA-Animal, Plant, Health Inspection Service website.

References

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Madsen, Karen. "To Make His Country Smile: William Hamilton's Woodlands." *Arnoldia*. 49:2 (1989).

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Growing on Trees

Urban and Community Forestry Challenge Grants

Deadline for Intent to Apply: October 1 | Full Application Deadline: November 1

Challenge grants are 50-50 matching grants (75-25 for environmental justice projects) to municipalities and nonprofit groups in Massachusetts communities of all sizes for the purpose of building local capacity for excellent urban and community forestry at the local and regional level.

The USDA Forest Service provides funding for the grant program, and DCR administers the grants with guidance from the Massachusetts Tree Wardens' and Foresters' Association.

The DCR Urban and Community Forestry Program assists communities and nonprofit groups in their efforts to protect and manage community trees and forest ecosystems, with the ultimate aim of improving the environment and enhancing the livability of all of Massachusetts's communities.

Project areas include:

- Building and Strengthening Citizen Advocacy and Action Organizations
- Securing or Training Professional Staff
- Developing and Implementing Systematic Urban Forestry Management through tree inventory and analysis, resource assessment, and development of plans
- Attaining a Tree City USA Award, Growth Award, Tree Campus USA Award, or Tree Line USA Award
- Completing strategic community tree plantings and "heritage" tree care projects
- Establishing a wood bank – NEW!
- Other projects

Read the complete guidelines and download the application at:

https://www.mass.gov/guides/urban-and-community-forestry-challenge-grants

For more information on the Challenge Grants, including our Eversource Go Green grants and National Grid Partnership Grants, contact Julie Coop at 617-626-1468 or julie.coop@mass.gov or Mollie Freilicher at 413-577-2966 or mollie.freilicher@mass.gov. Stay tuned for grant information sessions this summer.

Groundwork USA—Join the Network

Groundwork USA, in partnership with National Park Service and the U.S. Environmental Protection Agency, is now accepting letters of interest from communities wishing to begin the process of applying for Groundwork USA program funding and technical assistance and to join the Groundwork Network. For complete details on the application and selection process, including eligibility requirements, submission details, and evaluation criteria, download the Call for Letters of Interest. **Letters of Interest must be received by Groundwork USA by July 31, 2019.** A free informational webinar will be held June 4, 2019 to provide an overview of the application process with specific emphasis on the current phase of the process, a call for Letters of Interest. Click HERE to register for the webinar.

From the Massachusetts Tree Wardens' and Foresters' Association

Western Mass Tree Wardens Dinner Meeting

June 11, 2019, 5:00—7:30 p.m. | Bluebonnet Diner, Northampton
Forest Health in Massachusetts — Ken Gooch, Director of Forest Health, DCR
Safety Saves Time, Money, and Lives — Russell Holman, Arborway Tree Care
ISA, MCA, and Pesticide Credits will be available.

Click here to sign up.

Growing on Trees—Webcasts and Events

USDA Forest Service Urban Forest Connections

June 12, 2019, 1:00-2:15 p.m. (Eastern)

Planning in the Wildland-Urban Interface

Miranda Mockrin, USDA Forest Service
Joe DeAngelis, American Planning Association
Molly Mowery, Wildfire Planning International

To view the webinar and watch past archived webinars, go to https://www.fs.fed.us/research/urban-webinars/

Urban Forestry Today Webcast

June 13, 2019 | 12:00 – 1:00 p.m. (Eastern)

Attracting Wildlife & Obtaining Benefits from Urban Trees - Tierney Bocsi, University of Massachusetts
To attend live, go to www.joinwebinar.com and enter the code: 623-824-819.

This broadcast is free and will offer the opportunity for arborists to earn 1.0 ISA CEU and 0.5 MCA credit.

This webcast series is sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the USDA Forest Service, the MA Department of Conservation and Recreation, UMass Extension, and the Massachusetts Tree Wardens' & Foresters' Association.

i-Tree Workshop: Trees, Cities, and Benefits

June 4, 2019, 9:00 a.m. – 1:30 p.m. | Acton

Learn about the i-Tree software suite and how you can use i-Tree in your community to connect trees to broad sustainability goals and quantify the benefits of trees.

Find out more and register. Questions? Contact Mollie Freilicher, mollie.freilicher@mass.gov, 413-577-2966 or go to www.masstreewardens.org

TREE Fund Webinar

June 11, 2019, 2:00 p.m. (Eastern)
Remediating Compacted Soils Compromised by Urban Construction
Dr. Nina Bassuk, Cornell University

1.0 CEU from ISA, SAF, NALP or LACES for live broadcast. Go to: https://treefund.org/webinars

UMass Extension Events

Ornamental Tree and Shrub ID and Insect Walk
June 12, 2019, 2:00 – 4:00 p.m. | Boylston

Find out more and register at UMass Extension.

Plant Camp!
http://ag.umass.edu/landscape/events/plant-camp-basics-day-1
June 20, 2019 - 9: 00 – 3:30 p.m. | Amherst

Day 1: THE BASICS – This workshop is for those new to plant material or those that are looking for a refresher on common plants. Attendees will learn to identify and use some of the most common landscape plants in Massachusetts. This workshop will be a combination of classroom for learning identification skills and a plant walk to look at identifying features in person.

June 27, 2019 - 1:00 - to 4:00 p.m.| Hopkinton
Day 2: NEW INTRODUCTIONS - Let's talk cultivars. The second workshop in the series can be either a continuation of The Basics or a stand-only workshop for those looking to learn about new introductions. With the plethora of cultivars in the market, it can be helpful to step back and compare. This workshop will very briefly talk about identification skills but will mostly focus on ornamental attributes.

To register, go to http://ag.umass.edu/landscape/events/plant-camp-basics-day-1

Workshop: Tree Mapping Technologies

June 5, 2019, 9:00 a.m. – 2:00 p.m. | Lesley University, Cambridge
An interactive, educational workshop where you will learn terms, tools, tricks for cloud-based GIS tree inventory collection, tree care and consulting, data analysis, and work management. Sponsored by Plan-it Geo. Find out more and register.

Growing on Trees

From BayState Roads

For information on the classes below and other offerings, go to: umasstransportationcenter.org

Flagger Certification
Flagging is an important and demanding job whether it be in a work zone, during utility installation or repair, or during an emergency road hazard situation. This course will provide first aid training as required by the Massachusetts Department of Transportation, as well as Flagger Certification which is valid for two years. Contact the Baystate Roads Program for additional information at: admin@umasstransportationcenter.org.

June 17, 2019 – Worthington & June 25, 2019 – Sunderland

Chainsaw Skills and Safety – 2-Day
Topics covered include basic safety equipment, PPE, the saws reactive forces, chain tooth parts, felling, notch and hinge, cutting techniques, wedging techniques, and calculations. This class is designed for the professionals or homeowners and is designed to be a 16-hour course that includes a skills portion where each student fells one tree. Class size is limited to 12 students. Registrations are accepted on a first-come first-served basis.

June 19, 2019 – Tolland

Chainsaw Storm Debris Clean-Up
This class teaches students how to deal with trees that have fallen due to bad weather or other reasons. Individuals MUST successfully complete the Chainsaw Skills & Safety 2 - Day Course PRIOR to taking the Chainsaw Storm Debris Cleanup Class.

June 21, 2019 – Tolland

Partners in Community Forestry Conference

November 20-21, 2019 | Cleveland
The Partners in Community Forestry conference is the largest international gathering of urban forestry practitioners, advocates, researchers, and government leaders. Everyone comes together to share their best practices and find new ideas to bring home.

What is Partners all about? Check out this video: https://youtu.be/J6w06gqmO1I

Find out more at the Arbor Day Foundation. Registration will open this summer.

Massachusetts Soils Conference

RESCHEDULED TO A NEW DATE
Tuesday, June 25, 2019, 8:30 a.m. - 4:00 p.m.
Know the Soil, Know the Land
NORCO Sportsman's Club
91 Houghton Road, Princeton, MA
Find out more: https://worcesterconservation.org/event/soils-across-the-landscape-2019-massachusetts-soils-conference/

Coming soon! Information on the 2019 Massachusetts Tree Wardens Qualification Course

USFS Urban Wood Academy

September 11-13, 2019 | Baltimore

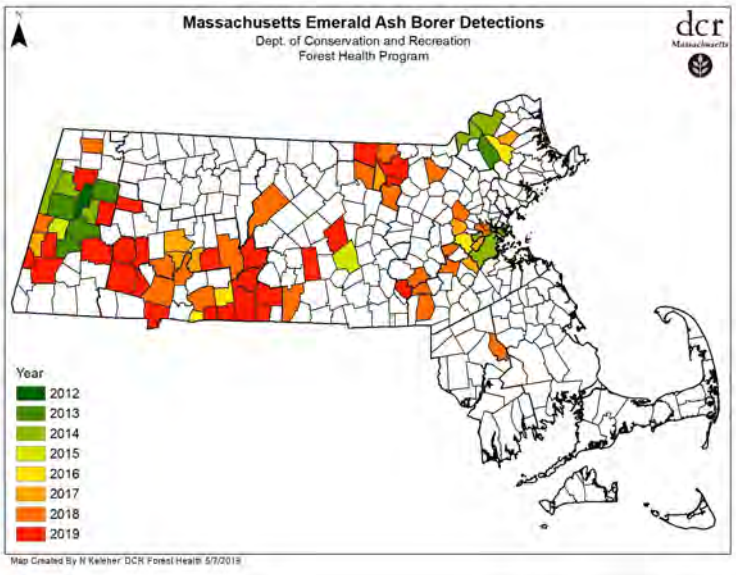
The Urban Wood Academy is a multi-day, interactive, experiential workshop designed to share best practices and lessons learned around building networked, regional wood economies that support the US wood industry.
Sponsored by the USDA Forest Service, Dovetail Partners, Quantified Ventures, and Room & Board

Find out More.

Growing on Trees

Emerald Ash Borer Update

As of May 7, emerald ash borer (EAB) has been detected in 74 communities in Massachusetts. It has not been detected in four counties: Franklin, Barnstable, Dukes, and Nantucket.

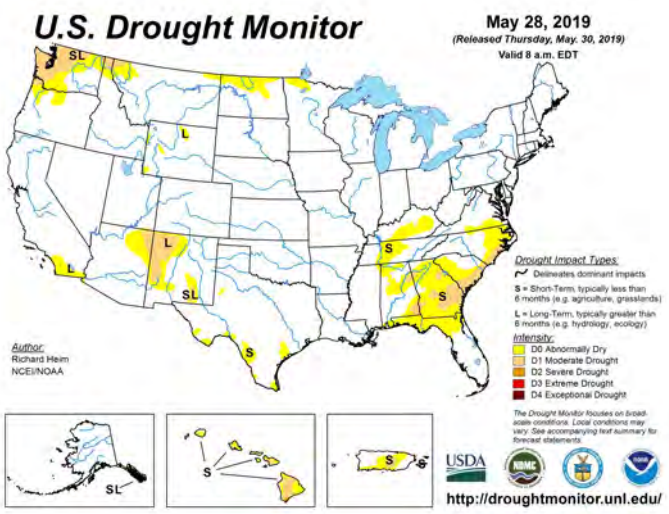


Third Edition of Insecticide Options for Protecting Ash Trees from Emerald Ash Borer Released

Insecticides can effectively control emerald ash borer and help preserve ash trees in our communities. This national guide contains the latest information on using insecticides to reduce the impact of emerald ash borer on ash trees.

Note - Pesticide labels and registrations are subject to change and vary from one state to another. It is the legal responsibility of the pesticide applicator to read, understand, and follow all current label directions for the specific pesticide product used. Inclusion of a pesticide in this guide does not mean endorsement by the authors.

http://www.emeraldashborer.info/documents/Multistate_EAB_Insecticide_Fact_Sheet.pdf

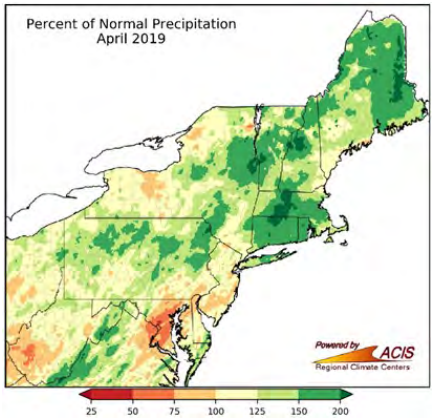


Drought Monitor

As of May 28, 2019, no parts of Massachusetts or the Northeast were classified in a drought status or as abnormally dry. Drought conditions have eased in much of the rest of the continental U.S., with no areas experiencing extreme or exceptional drought.

For complete details, go to the U.S. Drought Monitor: https://droughtmonitor.unl.edu/

Just how much more rain did we get in April than is typical in Massachusetts? Much of Mass got about twice as much according to the Northeast Regional Climate Center.



Growing on Trees

Tree Cities of the World—New Recognition Program

Urban forests help define a sense of place and well-being where people live, work, play, and learn. The **Tree Cities of the World** program is an international effort to recognize cities and towns committed to ensuring that their urban forests and trees are properly maintained, sustainably managed, and duly celebrated.

At the 2018 World Forum on Urban Forests in Mantova, Italy, world leaders issued the Mantova Green Cities Challenge and a call-for-action that included joining the Tree Cities of the World program, which will connect cities around the world in a new network dedicated to sharing and adopting the most successful approaches to managing community trees and forests.

To be recognized as a Tree City of the World, a community must meet five core standards that illustrate a commitment to caring for its trees and forest. Tree Cities of the World is a partnership between the Arbor Day Foundation and the Food and Agriculture Organization of the United Nations.

Tree Cities of the World is a separate program is separate from Tree City USA.
Find out more: https://www.arborday.org/programs/tree-cities-of-the-world/

Gleanings

Urban Trees 'Live Fast, Die Young' Compared to Those in Rural Forests

Urban trees grow more quickly but die faster than rural trees, resulting in a net loss of street-tree carbon storage over time, according to a study published May 8 in the open-access journal *PLOS ONE* by Ian Smith of Boston University and colleagues. The findings suggest that planting initiatives alone may not be sufficient to maintain or enhance canopy cover and biomass due to the unique demographics of urban ecosystems.

Municipalities are embracing greening initiatives as a key strategy for improving urban sustainability and combatting the environmental impacts of expansive urbanization. Many greening initiatives include goals to increase urban canopy cover through tree planting, but our understanding of street-tree ecosystem dynamics is limited, and our understanding of vegetation structure and function based on intact, rural forests may not apply well to urban ecosystems. To address this gap in knowledge, Smith and colleagues estimated size-specific growth, mortality, and planting rates in trees under municipal control, used a model to forecast short-term changes in street-tree aboveground carbon pools under several planting and management scenarios, and compared their findings to those for rural, forested systems. Read the full story at phys.org.

"Every parcel has promise" - Restoration in the Urban Habitat

Conference Session Review by Miho Connolly – Ecological Landscape Alliance
Dr. Steven Handel (Rutgers University, Harvard University) is not your typical plant scientist. As he said himself at the 25th Annual ELA Conference, "Most plant ecologists study the beautiful places of the earth… and I have been driven to study cities." Dr. Handel's lecture, titled The Challenges of Restoring Urban Native Habitat, centered around a modern reality: with population growth and the spread of urban areas, cities have become a new and important habitat type. While many might consider cities to be ecologically sterile sources of environmental problems, Handel sees environmental opportunity in the expanding urban realm. Read the full story at ecolandscaping.org.

News

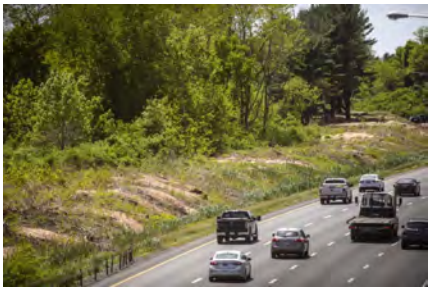
Orbiting NASA Instrument to Examine Boston's Carbon Emissions, Plant Life

By Kat J. McAlpine

The International Space Station has picked up a new hitchhiker—the Orbiting Carbon Observatory 3. On Saturday, May 4, NASA launched its latest mission, catapulting an instrument capable of monitoring global carbon dioxide emissions toward the space station, where it has latched on to catch a ride around Earth for the next three years. In addition to carbon dioxide, the observatory, also known as OCO-3, will measure the activity of Earth's plants, which feed on emissions and play a huge role in the CO2 cycling. Read the full story at bu.edu.

'We Can't Cut Them Fast Enough': State to Spend Millions to Cut Down 60,000 Potentially Dangerous Trees along Connecticut Highways

By Gregory B. Hladky, *The Hartford Courant*



May 22, 2019— Connecticut's Department of Transportation has some serious tree concerns. Oddly enough, they're not related to lots of complaints about the clear-cutting along interstate medians and shoulders, like the section of I-91 south of Hartford. A far bigger tree worry for the DOT, one that's expected to cost tens of millions of dollars and take years to resolve, are the estimated 60,000 dead or dying trees along state highways and routes all across Connecticut.

"And that's a very conservative estimate," said Kevin Nursick, spokesman for the state DOT.

"We can't cut them fast enough," Nursick said of the huge numbers roadside trees that have the potential to fall and block state highways or cause vehicle accidents. Forestry experts say those dead or dying trees, and millions of others around Connecticut, are victims of invasive insects like Gypsy moths and the Emerald ash borer, damage from severe storms or drought, pollution or simply old age. Read the full story at Courant.com.

News Headlines in Brief

Researchers Document the Oldest Known Trees in Eastern North America (includes video)

Chronicles of the Rings: What Trees Tell Us

This Woman Turned Her Tree Stump into a Little Free Library Fit for Magical Elves

Counties with More Trees and Shrubs Spend Less on Medicare, Study Finds

Wood Wide Web: Trees' Social Networks Are Mapped

A Tree Fell on The National Mall, And We All Heard About It

Urban Tree Cover Saves the U.S. Up To $12 Billion Annually

Hip-Hop Forestry with Thomas Easley

Sustainable Guitars - Giving Back to The Trees and Communities That Helped Create Music

Forest Rangers: Rainy April Means Fewer Wildfires in New England

UMaine Gets World's Largest 3D Printer, Begins Major Effort to Print with Wood

As California Wildfire Season Looms, Finding Tree Trimmers Is a New Problem

Thinning Forests, Prescribed Fire Before Drought Reduced Tree Loss

On the Horizon

Jun 1 DCR Adaptive Recreation Fair, Boston,

Jun 1 National Trails Day

Jun 1 New England ISA Tree Climbing Championship, New England Chapter-ISA, Warwick, RI, www.newenglandisa.org

Jun 1 ISA Exam, Dighton, (Enroll by May 29), www.newenglandisa.org

Jun 4 i-Tree Workshop, Mass. Tree Wardens' and Foresters' Assoc., Acton, www.masstreewardens.org

Jun 5 Tree Mapping Technologies for Urban Forest Management, Plan-it-Geo, Cambridge

Jun 11 Western Mass Tree Wardens Dinner Meeting, Northampton

Jun 11 TREE Fund Webinar, 2:00 p.m. (Eastern), www.treefund/org/webinars

Jun 12 Ornamental Tree and Shrub ID and Insect Walk, UMass Extension, Boylston, www.umassgreeninfo.org

Jun 12 Soak up the Rain Webinar, 1:00 pm (EDT), https://www.epa.gov/soakuptherain

Jun 13 Urban Forestry Today Webcast, 12:00 (EDT), www.urbanforestrytoday.org

Jun 16-19 Global i-Tree Science & Users Symposium, SUNY-ESF, Syracuse, www.esf.edu/itree/

Jun 20 Plant Camp – Day 1 – UMass Extension, Amherst, www.umassgreeninfo.org

Jun 27 Plant Camp – Day 2 – UMass Extension, Hopkinton, www.umassgreeninfo.org

Aug 10-14 ISA Annual International Conference, Knoxville, TN, www.isa-arbor.com

Aug 27-28 CTSP workshop, TCIA, Littleton

Aug 29 TREE Fund Webinar, 1:00 p.m. (Eastern), www.treefund.org

Sept 14 Town Forest Event, DCR Service Forestry, Sherborn, http://www.masswoodlands.org/events/

Oct 25-26 DCR Tree Steward Training, Harvard Forest, Petersham – more info coming soon

Nov 18-19 Society of Municipal Arborists Annual Conference, Cleveland, OH, www.urbanp-forestry.com

Nov 20-21 Partners in Community Forestry Conference, Cleveland, OH, www.arborday.org/pcf

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Bureau of Forestry

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If you have a topic you'd like to see covered or want to submit an item to *The Citizen Forester* (article, photo, event listing, etc.), contact Mollie Freilicher or click here.

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