Massachusetts Department of Conservation and Recreation

THE CITIZEN FORESTER

Urban & Community Forestry Program

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What We Learned From our Interviews with Massachusetts' Tree Wardens (Pt. 2)

By **Richard W. Harper**, **David V. Bloniarz**, **Stephen DeStefano**, **Craig R. Nicolson**, **Michael Davidsohn**, and **Emily S. Huff**

In the previous edition of Citizen Forester we commenced reporting on our findings from our in-person interviews that were conducted with tree wardens in Massachusetts from 2013 -2016 (Harper et al., 2017) (Figure 1). Stakeholder feedback can be critical when it comes to reliably informing University-based Extension programming content, and in this edition we will outline what interview participants indicated about their continuing educational needs.

What We Learned…

i. Educational/training needs.

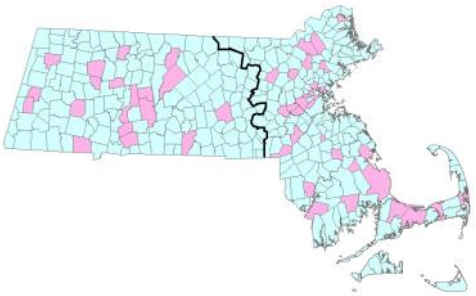

Figure 1. Representation of tree warden interviews by town. Credit: Tierney Bocsi

Nearly half of the participants (n=24) indicated thematically identifiable subject matter including the desire for more information concerning urban forest 'pests' (n=12), urban forest 'inventories' (n=4), and urban 'tree planting' (n=4). These themes were generally not surprising as the University of Massachusetts (UMass) Extension Plant Diagnostic Lab "regularly" receives questions about urban forest pest management (Dr. N. Brazee, UMass Diagnostic Lab Director, pers. comm.) from urban forest practitioners. The DCR urban and community forestry program "frequently" receives questions concerning the various perspectives related to urban tree planting, and also "very often" receives inquiries concerning the conducting of an urban forest inventory (M. Freilicher, DCR Urban & Community Forestry Program, pers. comm.). Tree wardens also broadly identified the need for more information concerning 'safety' (n=13) with two affiliated sub-themes arising, including 'electrical hazard awareness training' (i.e., EHAP)' (n=3) and 'hazard or risk trees' (n=3). The somewhat lesser frequency regarding the occurrence of these two themes was intriguing. Electrical-related fatalities have been historically responsible for a substantial percentage (around 25% - 30%) of overall fatalities in the tree care industry, though rates have been dropping in recent years (Gerstenberger, 2015). Furthermore, the topic of hazard, or risk trees, has received much attention as the issue of public safety and liability has escalated, and since the International Society of Arboriculture (ISA) released its *Tree Risk Assessment Qualification* (TRAQ) in 2011. Additionally, Ricard and Bloniarz (2006) concluded that tree wardens spend "most" of their time on activities like risk tree assessment and removal. The importance of this topic was also determined by Rines et al. (2010), who found that almost "all" tree wardens indicated that "removal of dead and hazard trees" was a "moderate or high" priority issue in their respective community. Our urban forests continue to age and decline, and nationwide the U.S. is losing over 36,000,000 urban trees per year (Nowak & Greenfield, 2018), hence the issue of hazard – or risk – trees is likely to continue to be of increasing relevance to tree wardens. It is curious as to why this issue was not identified with more emphasis, and this would indeed be a topic worthy of further research.

Up Ahead:

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ii. The dissemination of educational information.

Nearly all of the interviewees' responses concerning educational information delivery could be thematically categorized (n=46). Over half of tree wardens responded that 'electronic' media (n=27) was an acceptable information delivery technique with a substantial number (n=19) indicating that a 'web-based' format would be adequate. Over half of the tree wardens (n=31) indicated that 'in-person' delivery was also an acceptable mechanism for information exchange, specifically if the interaction was 'local' (n=8) and comprised of a 'meeting' (n=6) or 'program' (n=8). Tree wardens in the eastern part of the state emphasized the need for a mix between 'electronic' based materials and 'in-person' information exchange (n=21 and n=17, respectively), but tree wardens in the central-western part of the state indicated more of an emphasis on 'in-person' information exchange (n= 14), compared to 'electronic' based educational materials (n=6). This may relate to previous statements and findings from other studies, concerning community size and resource availability. Since central-western MA is composed of smaller, more rural communities and full-time tree wardens tend to be located in larger, more populated communities (Rines et al., 2010), those in the central-western portion of the state are more likely to operate on smaller budgets, potentially respond more reactively to tree-related issues, and be less likely to have access to the infrastructure and resources that facilitate proactive urban forest management, including the internet (A. Snow, tree warden – Town of Amherst, pers. comm.). As the tree warden from the central-western MA Town of Petersham indicated concerning the transfer of educational information,

> "person-to-person interaction is key…web-based methods should be used to complement any information gaps along the way."

Figure 2. A tree warden instructs urban tree planting volunteers about planting a bare root specimen in Springfield.

This corroborates Ricard and Bloniarz (2006), who determined that tree wardens find interactions with other tree wardens and in-person attendance at more formal educational seminars to be highly valuable.

iii. The time of the year that programs & training should take place.

Tree wardens indicated that 'spring' was the least popular time of the year to engage in educational or training activities (n=2) followed by 'fall' (n=8). On the other hand, 'winter' (n=15) and 'summer' (n=14), were identified as more appropriate times of the year to engage in professional development. This may be due to a number of factors, including the time commitment required by tree wardens that are involved with tasks associated with the commencement and close of the growing season, like spring and/or fall tree planting (D. Lefcourt, tree warden – City of Cambridge, pers. comm.) (Figure 2).

Since the position of tree warden is not a traditionally-recognized, formal profession, priorities associated with the position may vary considerably from municipality to municipality based on a community's individual urban forest

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priorities (Ricard & Bloniarz, 2006). Overall, tree wardens expressed that they interact with a wide number of community organizations (Figure 3), and municipal departments on a routine basis. Of further interest in this vein, is the relationship between the local tree warden and the local utility (Doherty et al., 2000). Since it is estimated that street trees that are in the vicinity of utility lines are estimated to comprise 50% of the public urban forest (Moll, 1988), this is a notable relationship. The interaction between tree wardens and the utility provider was identifiable (n=8) throughout responses in the interview questionnaire. According to the tree warden from the City of Medford, MA

> "…our relationship with the utility company is an important and mutually beneficial one".

Additionally, according to the tree warden in the Town of Lennox, MA

> "I have enjoyed a close relationship with the utility forester for many years."

Thus, it is apparent that a successful tree warden should have the capacity to effectively communicate with a wide number of individuals and organizations in their respective communities (Rines et al., 2010; Rines et al., 2011), including their utility partners (Doherty et al., 2000). And a successful tree warden should also have the capacity to embrace the dynamic state of their position, being able to balance a number of priorities that are subject to change, based on needs and occurrences in their local jurisdiction.

Conclusions

Though there is variation within MA communities, tree wardens are generally housed in a municipal department, like public works or the highway department, often in a senior management capacity. As the size of the community increases, the local tree warden typically has access to a larger pool of available resources; to successfully employ these resources to manage public shade trees, they often need to be able to interact with a wide range of local municipal departments, commissions and citizen volunteer groups. Tree wardens expressed the desire to receive continuing education, either in-person or web-based, preferably in the summer or winter months. Training content may vary widely but should include information pertaining to urban forest pest management, community tree inventories and urban tree planting. Nearly all tree wardens interviewed indicated that they routinely monitor for urban forest pests. Many of these urban forest priorities are worthy of further research, and the dynamic nature of the position of tree warden necessitates routine visitation, to assess training needs and priorities of these individuals who strive to preserve and protect both public trees and public safety throughout the Commonwealth of MA.

Figure 3. A tree warden leads students on a community tree walk in Amherst.

Acknowledgments

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thank both the UMass Dep't of Environmental Conservation and the UMass Center for Agriculture, Food & Environment for supporting this research.

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Literature Cited

Doherty, K.D., Ryan, H.D.P., & Bloniarz, D.V. (2000). Tree wardens and utility arborists: a management team working for street trees in MA. *Journal of Arboriculture* 26(1): 38–47.

Gerstenberger, P. (2015). Occupational accidents. *Tree Care Industry Association*. (p. 4).

Harper, R.W., Bloniarz, D.V., DeStefano, S., Nicolson, C.R., 2017. Urban forest management in New England: Towards a contemporary understanding of tree wardens in MA communities. *Arboricultural Journal* 39(3): 1-17.

Moll, G. 1988. Branches & wires: The conflict above. *American Forests* 94: 61-64.

Nowak, D.J., & Greenfield, E.J. (2018). Declining urban and community tree cover in the United States. *Urban Forestry & Urban Greening* 32: 32-55.

Ricard, R. M., & Bloniarz, D. V. (2006). Learning preferences, job satisfaction, community interactions, and urban forestry practices of New England (USA) tree wardens. Urban Forestry and Urban Greening, 5, 1–15.

Rines, D.R., Kane, B., Kittredge, D.B., Ryan, H.D.P., & Butler, B. (2011). Measuring urban forestry performance and demographic associations in MA, USA. *Urban Forestry and Urban Greening* 10(2): 113-118.

Rines, D.R., Kane, B., Ryan, H.D.P., & Kittredge, D.B. (2010). Urban forestry priorities of MA (U.S.A.) tree wardens. *Urban Forestry & Urban Greening* 9(4): 295–301.

Species Spotlight

Tree of Heaven (*Ailanthus altissima*)

By **Mollie Freilicher**

This month, we're spotlighting a species important for monitoring for a new pest. The tree is tree of heaven (*Ailanthus altissima*) and the pest is spotted lanternfly (*Lycorma delicatula*). Being able to identify tree of heaven is important because it is particularly attractive to the exotic invasive insect, the spotted lanternfly.

The spotted lanternfly is not yet known to be present in Massachusetts, but there are known established populations as close as Pennsylvania and New Jersey. Insects, though no accompanying infestation, have been found in Connecticut and New York, and even one in Boston. The time to keep an eye out for this pest is now.

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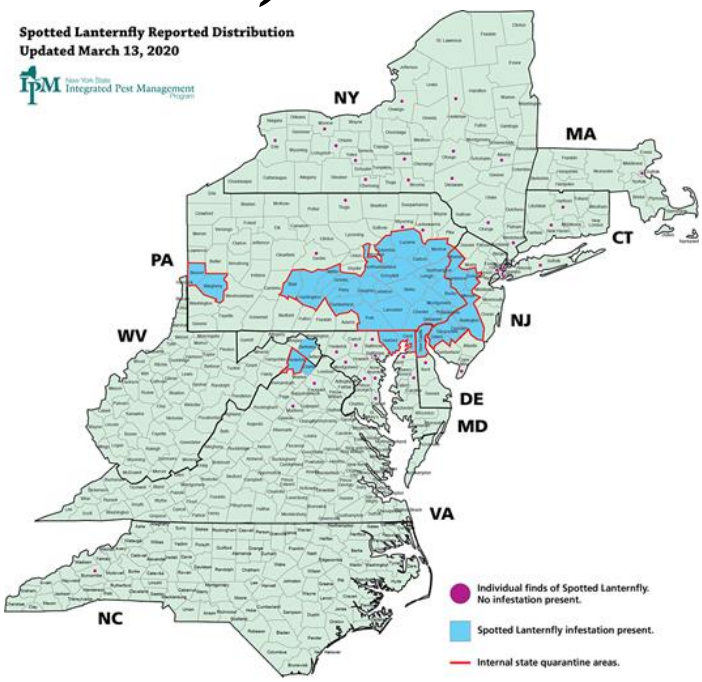

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Tree of Heaven

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Form: A short to medium-sized tree, 40 to 60 feet tall, with heavy, open branches. Lower branches on larger trees tend to droop. Often grows in clumps.

Leaf: Alternate, pinnately compound, 1 to 3 feet long, with 11 to 41 leaflets, leaflets are 2 to 6 inches long, pointed at the tip with large, glandular teeth near the base, green above and below. In comparison to leaves of sumac and black walnut, leaves of tree of heaven seem a bit irregular due to the glandular teeth. Acrid odor when crushed.

Flower: Species is dioecious (male and female flowers on separate plants); small yellow-green, in long (6 to 12 inches) clusters, males have a disagreeable odor, appearing in late spring to early summer.

Fruit: An oblong, twisted samara, 1 to 1.5 inches long with the seed in the center, hanging in long clusters, ripens in late summer and disperses through the winter.

Twig: Stout, yellow to red-brown, with fine velvety hairs when young, easily broken with a large reddish brown pith; buds are relatively small and half-spherical sitting above large, heart-shaped leaf scars; terminal bud is absent. Strong, acrid odor when broken.

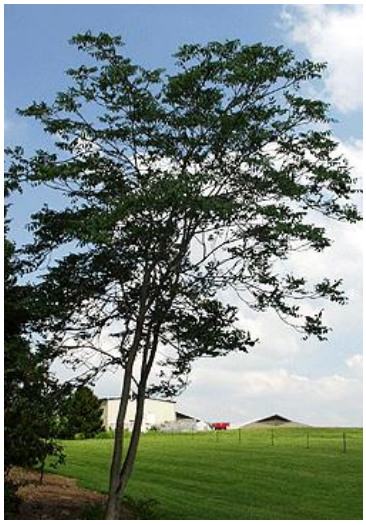
Bark: Thin, pale gray, with lighter vertical streaks.

Native to China

Where you'll find it: Occasionally as street tree, more likely naturalized along roadside or other marginal, edgy habitat. Spreads quickly.

For additional identification information, check out this resource from Penn State.

Flower. Virginia Tech

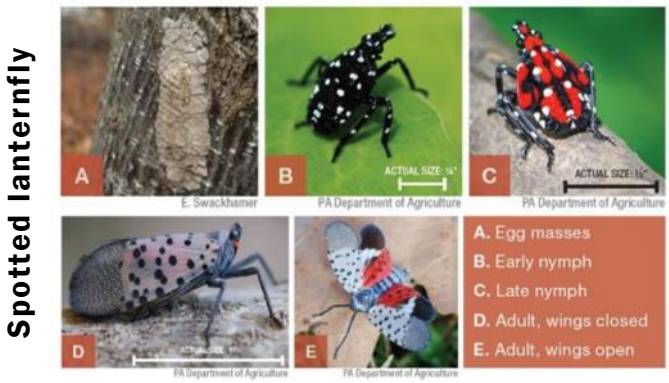


Form. Virginia Tech

Twig, Jan Samanek, Phytosanitary Administration, Bugwood.org

Fruit. Virginia Tech

Bark, Richard Gardner, Bugwood.org



From the Woods

Berry Season

By **Peter Grima**

July and August are, to me, the pinnacle of the year. Berry season! A time of abundance, of vigor, proving Nature's benevolence through a profusion of flower and fruit. What is January to a July day? All notions of dormancy and freezing dwindle to insignificance, and that same landscape whose secrets were locked in ice not long before, now embraces, comforts and even feeds us. Caught in that verdurous swell, the days seem jeweled with new wonders each day, and chiefest among these jewels are the berries.

For those who venture afield in summer, like a forester, respiring in our rural haunts, in defiance of deer flies and undeterred by mosquitoes, what greater reward than to come upon a berry patch! It hardly matters which kind – only that they are ripe and reachable! One at a time, or by the handful, I can hardly pass up a berry ready for the picking. These gifts of field and forest, relished by most all of our wild friends, never fail to delight me. At once common and novel, as fresh as if I had planted them myself, I marvel that I should be so lucky to have such snacks ever at hand while working in the woods, without the burden of packing so much as an ounce of it along in my vest.

Nantucket shadbush ripening on Independence Day.

Commonly, the merit of a summer day spent in the field is quantified by the number of species I have managed to eat. In the right habitats, it is not hard to find two or three different blueberries, and at least as many kinds of raspberries and their kin. Add huckleberries, serviceberries, grapes, a cranberry now and then, and some wild cherries, and you can amass a substantial list of samplings from a single day's work. Some are indeed delectable, whereas others are worth tasting if only to verify that they are not delectable. When asked which is my favorite, my answer is always "whichever I am currently eating." I admire them all, even the tart, the bitter, the insipid, for their beauty if not their flavor, and for what they represent – the intractable, immanent, multitudinous force of creation in Nature.

Here I share with you a catalogue of the berries you may know, such as I have known, which in and of themselves are celebrations of summer, of growth, of fulfillment. For our purposes here, let us willfully suspend the botanical technicalities of what is a "berry" proper and accept all these summer fruits as berries, equal unto each other.

The Serviceberries

Also known as June-berries, these fruits of the shadbushes (genus *Amelanchier*) are a fitting prelude to the *true* berry season. Their white flowers usher in the spring, and as the forest canopy settles into a uniform carpet of greenery, their dusky blue-purple fruits become the object of every bird's fancy. Very rarely can I find enough to make a handful, for every ripe one seems to be spoken for by the birds, and they gather their quarry not a moment later than it is ready. Some of them, such as the uncommon Nantucket shadbush (*Amelanchier nantucketensis*), ripen into early July and may be plucked alongside the lowbush blueberries. Though their fruits look superficially like blueberries, they are in the Rose family and are technically more akin to apples. Although a bit on the seedy side, the berries are quite juicy and unassumingly sweet.

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Berry Season

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My youngest son, Vincent, with a gallon of freshly-picked lowbush blueberries.

The Blueberries

"Blueberries and huckleberries deserve to be celebrated, such simple, wholesome, universal fruits, food for the gods." – Thoreau

Think of the heady solstice days, with surfeit of sunshine being soaked up by farmland and forest alike. The blueberries gather all the warmth and azure of those bright skies and condense them into their improbably blue fruits. The lowbush species (*Vaccinium angustifolium* and *V. pallidum* being predominant in most of the state) I associate with Independence Day, the varying shades of nearly-ripe, just-formed and fully-ripe berries filling the roles of red, white & blue for the occasion. (I recommend adding a blueberry pie to your 4th of July offerings – mix with red raspberries and apples for full effect!) For *V. angustifolium* in particular, you are guaranteed that any berry that is blue will be sweet and juicy. No need to worry about tartness or underripe berries mixed in. Being borne so low to the ground, just about every creature that can fit a berry in its mouth will partake, from chipmunks & turkeys to coyotes and bears. The open "heathlands" where these species thrive benefit from periodic fire, both for keeping back the encroaching shade of taller trees as well as rejuvenating the blueberry plants which sprout back after the fire (with a fresh dose of potassium from the ashes). Commercial lowbush blueberry production, of which some measure still occurs in Massachusetts, makes use of fire for just this purpose, emulating the natural forces which shaped the species for countless millennia.

The highbush blueberries, which populate many a swamp in our state, are better known for the larger eye-catching fruits that are brought to market. There are several species of these too, but, by and large you're most likely to find *Vaccinium corymbosum*. In flavor, there is no mistaking any of them as blueberries, and when you find a stretch of bushes heavy with humid blue fruit, you and the bears must reach an agreement as to how you will share them!

The Huckleberries

If you have read much of Thoreau, you may get the impression that the huckleberry is the most superior fruit in all of Massachusetts, or New England, or perhaps the World! He was quite smitten with them, and expressed fond memories of "going a'huckleberrying" as a child, which may partly explain his sentiments. Huckleberries were also probably quite abundant in the mid-19th century, with many acres of forestland cut over year after year for timber and fuel, and fires occasionally sweeping over the countryside, leaving these understory shrubs of dry, acidic woods to flourish (and fruit!) in profusion. Huckleberries are juicy and seedy, somewhat like a serviceberry but with more pizzazz.

Our most common and widespread species is the black huckleberry, *Gaylussacia baccata*,

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Berry Season

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which has blueberry-like fruits that are shiny and of such a deep purple as to seem black. The foliage of this shrub glistens in the sunlight because its leaves are adorned with tiny dots of resin on both sides. This resin is responsible for the species' pyrogenic qualities. Once heated by a passing fire, even in the midst of a lush verdant summer, the resin on the perfectly green foliage vaporizes, and the entire bush bursts into flame. Even a seemingly innocuous knee-high understory of huckleberry is capable of becoming a wall of flame 6-10' tall, under suitable conditions. The huckleberry, a well-known phoenix from pyrogenic habitats up and down the Atlantic coastal plain, sprouts back as green as ever, and sometimes even more vigorous in proportion to the suffering it has caused to the trees overhead.

We have two other species, more commonly associated with wetlands (although I've seen the black huckleberry in full-on bog habitats too) and more restricted to our coastal plain (<100 miles from the coast). Blue huckleberry, *Gaylussacia frondosa*, which has dull blue fruits, looking as if dusted with confectioner's sugar, is particularly delicious. The other, known as the dwarf huckleberry (*G. bigeloviana* or *G. dumosa*), I've not seen in Massachusetts, but I did see it in a boggy, sandy habitat in New Jersey, which is where it is said to grow here as well.

The *Rubus* Berries

Rubus is the genus containing our blackberries and raspberries. The three familiar ones – blackberries and the black and red raspberries – are in fact wild plants that the birds deposit freely on the landscape. All three have found their way to the edge of my yard, largely by way of neglect and certainly by no effort of my own! Some prudent work with a pair of clippers can favor a species and bring about better fruit set, but as the birds have sown them, so do they divest the brambles of their bounty! The

Dewberries are blackberry-like plants that trail over the ground like a vine.

raspberries, as any plucker knows, are those which fall free from their receptacles, leaving you with pure berry pulp to enjoy. The blackberries, as any hiker knows, are the ones that shred your pants when you try to walk through them!

Like many plants in the Rose family, *Rubus* is a complicated genus known for frequent hybridization events that have blurred the lines between some taxa. That said, for those wishing to add a category of *Rubus* berries to their summer pluckings, there are several trailing species, spreading over the ground like creeping vines, which are often overlooked. The berries of these are typically referred to as dewberries, and there are several that span a diversity of habitats. Similar in appearance to a blackberry, and sharing the pithy receptacle which the blackberry keeps when plucked, they may sometimes taste like blackberries, but in their finest condition they are much more sublime. I'd say they're something like a combination of boysenberry and port wine, mellow and sweet but with tangy high notes.

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Berry Season

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There is another distinct species, the purple-flowering raspberry, *Rubus odoratus*, which is a common sight in western Massachusetts. It is an underdog in the realm of raspberries, and one which I therefore go out of my way to appreciate. The flowers, truly, are vibrant purplish-pink and extremely showy (you might easily mistake them for wild roses), and the leaves are unique for the genus in that they are simple-leaved, as opposed to the compound leaves of all other species. The fruit is a broad velvety disc, purplish-red, and far too delicate to pick for anything but direct consumption. They are not as juicy, and some people say they feel "fuzzy" in their mouths, but neither of these things has ever stopped me from enjoying them! They taste most similar to the red raspberry, with a hint of tartness, but with a complex mouth-feel that only the most discerning of palates are likely to appreciate.

The Cherries

The flowers of our wild cherries cannot hope to compare to the Japanese ornamental varieties, and they pale in size and flavor to the Bings in western orchards. Mostly our cherries are not really worth eating, except perhaps for the shock of juxtaposing a seemingly delicious fruit with inexplicable tartness and bitterness combined, or at best for jams if you have enough sugar and pectin on hand. I have occasionally eaten fruits of the black cherry, *Prunus serotina*, that were delicious, but more often they have been as bitter as aspirin. What I have learned most about wild cherries is that the birds and mammals cannot get enough of them, and I would assert that no wild summer fruit is more prized and sought after by our wild mammals than the black cherry. In a bumper crop year, even as other fruits are available in profusion, I have inspected the animal scats during my field days and discovered that no matter the animal -– black bear, fox, coyote, raccoon – cherry stones made up the bulk of their leavings. The bears, who can climb up to the treetops when they find it worth the effort, seem to walk right past briar patches and bushes laden with raspberries and blueberries at ground level in order to have their fill of cherries. I therefore have to wonder if there is something we are missing down here in the shade. Perhaps the black cherries sweeten in the lofty sunshine to a degree that horticulture has not yet hinted at. Though small and scant of pulp, I surely would not eschew a bough-ful of these cherries if they're as sweet as I suspect – better far than the frustrating pulp of a pomegranate!

Left: A handful of red raspberries. Right: The purple-flowering raspberry.

As the season wanes, and the berries become scarce even at the higher elevations, I make note of the outliers still putting out seemingly ripe berries well into September, even October in some years. Tempted, naturally, I've tasted these late offerings but have found them mostly flavorless – a berry outwardly, but lacking the sweetness bestowed by summer sunshine. Try as we might to "keep summer in a jar" by canning and preserving, there is simply no substitute for enjoying these various fruits in their prime. These sweet memories of July will serve us well come January.

To learn more about the berry-producing plants of New England, visit https://gobotany.nativeplanttrust.org/.

Peter Grima is a Service Forester with the DCR and covers the northern Berkshires.

2019 Tree City USA, Tree Line USA, Tree Campus USA

While we are unable to celebrate our Tree City, Tree Line, and Tree Campus USA participants in person this year because of the pandemic, we want to recognize all the hard work that took place across Massachusetts.

Milestone Years

35 years	Reading
30 years	Lynn
25 years	Needham, Somerville *G*, South Hadley
20 years	Bedford, Grafton, Stoneham, Sutton, Westover ARB, Weymouth
15 years	Fall River, Lanesborough, Pittsfield, Salem
10 years	Dedham, Sheffield
5 years	Malden, Rochester
1 year	Southborough

Growth Awards and Growth Award Years

Arlington	2	Quincy	2
Cambridge	15	Somerville	5
Great Barrington	1	Springfield	7
Medford	12	Westfield	3
Northampton	4	Worcester	21

Other recognition years:

Acton	23	Falmouth	21	Marion	23	Quincy *G*	22
Amherst	33	Framingham	29	Marlborough	9	Sandwich	14
Andover	21	Great Barrington *G*	8	Mattapoisett	12	Saugus	21
Arlington *G*	18	Greenfield	18	Maynard	7	Springfield *G*	34
Beverly	19	Groton	24	Medfield	7	Sturbridge	31
Boston	24	Hadley	4	Medford *G*	22	Swampscott	29
Brockton	22	Hanscom AFB	33	Milford	2	Wakefield	19
Brookline	32	Haverhill	24	Milton	11	Waltham	18
Cambridge *G*	28	Hingham	32	Monson	4	Watertown	29
Chatham	7	Ipswich	18	Nantucket	21	Wellesley	37
Chelmsford	6	Lawrence	18	Natick	13	Westborough	11
Chelsea	16	Lexington	31	Newburyport	24	West Bridge-water	26
Chicopee	27	Longmeadow	18	New Salem	4	Westfield *G*	14
Revere	3	Lowell	22	Newton	31	Weston	17
Duxbury	29	Lynnfield	12	Northampton *G*	13	Winchester	9
Easton	28	Manchester-By-The-Sea	28	Peabody	22	Worcester *G*	34
Everett	12	Marblehead	21	Plymouth	31	*G* Growth Award	

2019 Tree City USA, Tree Line USA, Tree Campus USA

College/University	Years
Boston College	2
Smith College	5
University of Massachusetts Amherst	5
Northeastern University	1

Utility
National Grid

For all 2019 awardees: DCR has recently received your recognition materials and appreciates your patience as we work to find a way to safely distribute them to the 90+ participating communities and schools.

Interested in becoming a Tree City, Tree Campus, or Tree Line USA?

Tree City USA Communities meet four standards: Tree Board or Department Tree Care Ordinance A Community Forestry Program With an Annual Budget of at Least $2 Per Capita An Arbor Day Observance and Proclamation.

Tree Campus USA Colleges and Universities meet five standards: Campus Tree Advisory Committee Campus Tree Care Plan Campus Tree Program with Dedicated Annual Expenditures Arbor Day Observance Service Learning Project

Tree Line USA Utilities meet five standards: Quality Tree Care Annual Worker Training Community Tree Planting and Public Education Tree-based Energy Conservation Program Arbor Day Observance

Tree Campus K-12, Tree Campus Healthcare, and Tree Cities of the World

Go to the Arbor Day Foundation website to find out more about Tree Campus K-12, Tree Campus Healthcare, and Tree Cities of the World

Note that the Arbor Day Observance and Proclamation standard has been waived for 2020 due to the pandemic, though communities are encouraged to find safe ways to observe Arbor Day.

Find out more: www.arborday.org and Massachusetts DCR Urban and Community Forestry.

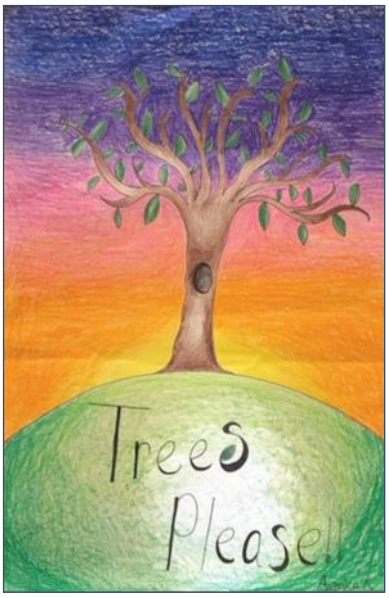
DCR 2020 Arbor Day Poster Contest Winners

1st Place: Emma B., Molin Elementary School, Newburyport

The DCR is pleased to announce the winners of the 2020 Annual Arbor Day Poster Contest. This year's theme was **Trees Please** and we received entries from all over the Commonwealth. While we were unable to hold our usual recognition event at the winner's school, we want to recognize our 2020 winners.

Congratulations to all the contest winners and to all the artists who submitted posters to the state contest. Artwork submitted to the state contest is included in a 2021 calendar featuring all the entries.

The Arbor Day Poster Contest is open to fifth-graders across the Commonwealth. The 2021 contest theme and instructions will be released later this summer. In the meantime, if you have a suggestion for a theme, please email mollie.freilicher@mass.gov.



2nd Place: Angelica K., Mapleshade Elementary School, East Longmeadow

3rd Place: Reid J., Brookwood School, Manchester-by-the-Sea

Honorable Mention: Adriana F., Center Elementary School, Longmeadow.

Honorable Mention: Reese R., Stearns Elementary School, Pittsfield

Growing on Trees

Beech Leaf Disease Detected in Massachusetts for First Time

By **Nicole Keleher** June 2020—Beech leaf disease (BLD) has been detected in Massachusetts for the first time. DCR Forest Health staff confirmed BLD-infected trees in Plymouth, MA. BLD is a newly-identified disease first found in Ohio in 2012. Since its initial discovery, BLD has been detected in Pennsylvania, New York, and Connecticut, as well as in Ontario, Canada. The symptoms of BLD are associated with a foliar nematode, *Litylenchus crenatae*, however, at this time it is still unknown how the disease spreads.

Symptoms of beech leaf disease include dark bands forming between the veins on leaves. As the disease progresses, the leaves eventually become curled and shriveled. A heavily impacted tree may appear to have a thin canopy.

Many species of beech and all age classes are susceptible to infection by BLD. The infected trees found in Plymouth included both American beech (*Fagus grandifolia*) and European beech (*Fagus sylvatica*), as well as both forested and urban trees.

If you suspect you have seen symptoms of BLD in your community or have questions about BLD, please reach out the DCR's Forest Health Program, https://www.mass.gov/service-details/forest-health-program or contact Nicole directly, nicole.keleher@mass.gov.

American beech with beech leaf disease. Note the dark bands between veins on the leaves.

Nicole Keleher is the Director of the Forest Health Program at DCR.

Darkened interveinal bands of a diseased American beech that are beginning to curl and shrivel.

Curling and shriveling leaves of a diseased American beech.

Diseased European beech with thinning canopy.

Growing on Trees—Webcasts

USDA Forest Service Urban Forest Connections

July 8, 2020 | 1:00-2:15 p.m. (EDT)

Rx for Hot Cities: Urban Greening and Cooling to Reduce Heat-Related Mortality in Los Angeles and Beyond

Edith de Guzman, TreePeople & Los Angeles Urban Cooling Collaborative; David Eisenman, UCLA David Geffen School of Medicine & UCLA Center for Public Health and Disasters; and Larry Kalkstein, Applied Climatologists, Inc. & LA Urban Cooling Collaborative

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

Urban Forestry Today

July 9, 2020 | 12:00-1:00 p.m. (EDT)

Energy Benefits of Trees

Benjamin Weil, PhD. UMass-Amherst

Click here or go to www.joinwebinar.com and use code 688-720-819 to view live.

ISA and MCA CEUs available. View archived webcasts: www.urbanforestrytoday.org/

First Detector Webcasts

Improve your diagnostic skills with tips and tricks to help you recognize symptoms of common plant problems. Brush up on ID features of pests on the move and review just how easy it is to report if you think you've spotted one of these!

All webcasts: 12:30-1:30 p.m. (EDT)

Register at: www.firstdetector.org

July 1	Spotted lanternfly
July 8	Oak wilt
July 15	Huanglongbing & Asian citrus psyllid
July 22	ALB & EAB
July 29	Thousand cankers disease & laurel wilt
August 5	Sudden oak death

TREE Fund Webinar

July 14, 2020 | 1:00 – 2:00 p.m. (EDT)

Webinar: Enhancing Tree Health in Water Sensitive Urban Design

Dr. Brandon Winfrey, Monash University, Melbourne, Australia

Find out more: www.treefund.org/webinars

New England Chapter ISA Online Workshop

July 16, 2020 | 1:00 – 4:00 p.m. (EDT)

The Use and Abuse of Logical Fallacies in Tree-Related Litigation

Presenter: Mark Duntemann

$25 (members) $60 (non-members. Includes 1-year chapter membership)
www.newenglandisa.org

Planning the Urban Forest

July 16, 2020 | 9:00-10:00 a.m. (EDT)

i-Tree and the Urban Forest

Free, registration required: https://register.gotowebinar.com/register/5874225940497312527

August 13, 2020 | 9:00-10:00 a.m. (EDT)

Trees, People, and Technology

Free, registration required: https://register.gotowebinar.com/register/4981246576882774543

Forest Adaptation Webinar

July 22, 2020 | 12:00 p.m. (EDT)

Managing Emerald Ash Borer and Climate Change

Featuring Nancy Patch, Vermont Department of Forests Parks and Recreation, Pieter van Loon, Vermont Land Trust, and Tony D'Amato, University of Vermont.

Find out More: www.forestadaptation.org/learn/forest-adaptation-webinar-series

Growing on Trees—Grants

Municipal Vulnerability Preparedness Program Planning Grants

Through MVP Planning Grants, the Commonwealth awards communities funding to complete vulnerability assessments and develop action-oriented climate resiliency plans. The program helps communities define extreme weather and natural and climate related hazards; understand how their community may be impacted by climate change; identify existing and future vulnerabilities and strengths; and develop, prioritize, and implement key actions. State-certified MVP providers offer technical assistance to communities in completing the assessment and resiliency plans. Communities who complete the MVP planning grant program become certified as an MVP community and are eligible for MVP Action Grant funding. The Planning Grant RFR is now available on COMMBUYS. **The Planning Grant response period will be open on a rolling basis until 4:00 p.m. on August 7, 2020**, for MVP planning processes that must be complete by June 30, 2021. Early application is encouraged.

Visit our program information page for a map of the MVP regions and local contacts.

DCR 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
- 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.

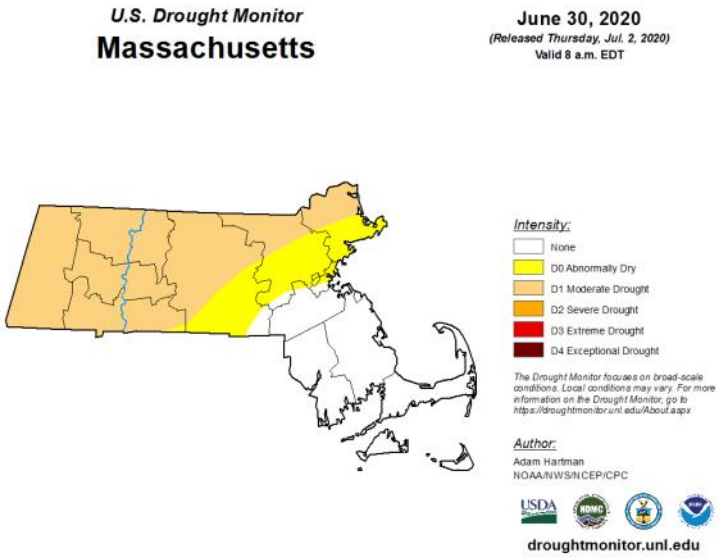
Growing on Trees

Weather and Climate

Looking for information on what this means for plants? Check out the UMass Landscape Message. There you can learn about conditions around the state, from weather, to insect and disease activity and management, growing degree day reports, phenology, and cultural problems.

The Northeast Regional Climate Center:
http://www.nrcc.cornell.edu/regional/drought/drought.html
The U.S. Drought Portal
https://www.drought.gov/drought/states/massachusetts

National Climate Report
https://www.ncdc.noaa.gov/sotc/



Emerald Ash Borer

No new update. As of March 3, 2020, emerald ash borer (EAB) has been detected in 116 communities in Massachusetts. See the March issue for the latest.

Learn how to identify signs and symptoms of EAB in this video, field guide, or at MassNRC.org.

Left: "Blonding" on the bark of an ash tree. This is one of the symptoms of emerald ash borer (EAB). Woodpeckers searching for EAB larvae causes this damage. Art Wagner, USDA - APHIS, Bugwood.org.

NASF Centennial Challenge

Please help support the Massachusetts DCR Bureau of Forest Fire Control and Forestry in our participation in the National Association of State Forester's 100th anniversary Centennial Challenge! Our theme for this challenge is "100 Legacy Trees Across Massachusetts." Please help us reach our 100 legacy tree goal by nominating unique, significant, and otherwise noteworthy trees on public and private land across Massachusetts. A legacy tree can be any tree that is compelling for its age, size, form, history, species, and/or botanical interest.

Please visit https://www.mass.gov/guides/massachusetts-legacy-tree-program to learn more about the legacy tree program and to fill out an online nomination form or print a pdf of the form. To learn more about the NASF centennial challenge, please visit https://www.stateforesters.org/centennial/.

Sassafras, Leominster, MA

Growing on Trees

Remember to Water Young and Establishing Trees

DCR Urban Forester, Ahron Lerman, waters a tree in Quincy in June. Photo by Joshua Soojian, DCR.

The DCR urban foresters with the Greening the Gateway Cities Program have been watering trees planted on public property in the past few growing seasons in Gateway Cities, to assist their municipal partners during these dry months.

Young, establishing trees need water. Remember to water trees that have been planted in the last few years. This is especially important when it is hot and dry.

It is hard to say exactly how much water your tree needs, but 15 gallons once per week is a good starting place for recently planted trees. If it is very hot and dry, increase the amount of water per session or water twice a week.

Gleanings

Dead And Dying Trees Have More Methane In Their Soil, Study Finds

June 5, 2020—Of all the troubled trees in Chelsea, there's one that's taken root in Roseann Bongiovanni's mind. "If I remember correctly, it was on Bellingham Hill," Bongiovanni says. "They would plant this street tree, care for it, the city would go and water it, and then maybe a year later they would see that it died."

This happened over and over, says Bongiovanni, the executive director of GreenRoots, an environmental justice non-profit in Chelsea. "This tree would die no mater what the city did," she recalls. "So after seeing a tree die in the same place multiple times, we started to think, 'OK, what's going on here?'"

Bongiovanni suspected that gas leaks were playing a role, not just with that tree, but with many dead and dying trees across the city. And trees matter in Chelsea, a densely populated city with the highest rate of COVID-19 infection in the state, where urban heat effects and air pollution compromise the health of residents. "We're a community that believes heavily in having more street trees," Bongiovanni says. "There are so many different reasons why street trees are really important." Street trees cool sidewalks, absorb pollution, and offset greenhouse gas emissions.

"I can tell you what it feels like to walk down a tree-lined street in the summer and then walk down a street that had no trees," says Madeleine Scammell, a Chelsea resident and professor of environmental health at Boston University School of Public Health. "That's the case here in Chelsea. A lot of the streets where there are just no trees, it is so much hotter."

Read the full story at WBUR.org

Gleanings

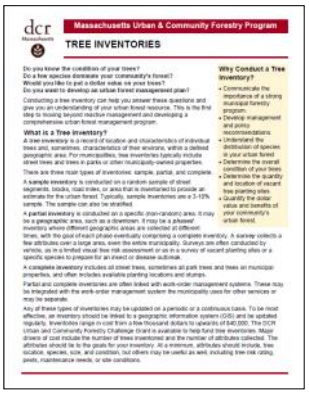
Two New DCR UCF Factsheets

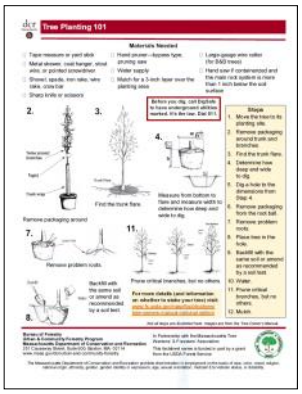
We've updated two of our factsheets: Tree Planting 101 and Tree Inventories and Surveys. We've updated them to reflect the latest best practices.

Download Tree Planting 101

Download Tree Inventories and Surveys

Find the rest of our factsheets on the DCR Urban and Community Forestry website.





New Podcast from the USDA Forest Service

The Northern Research Station invites you inside the largest forest research organization in the world — the USDA's Forest Service — for conversations with scientists at the forefront of forest research. Forestcast brings you stories, interviews, and special in-depth anthologies of the science that's examining and explaining how forests affect our lives, and how we affect our forests.

Check it out here.

Saving the Rain: Green Stormwater Solutions for Congregations

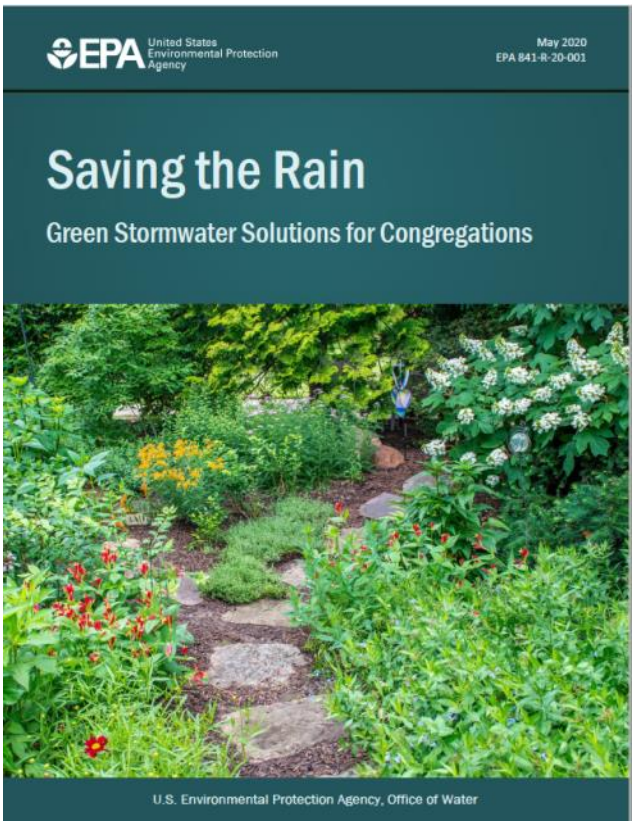
This document is for leaders and members of congregations who want to make their places of worship more ecologically resilient and protective of water resources as part of their faith practice. Congregations can use this guide for help with constructing green stormwater management practices to enhance their landscapes.

Using a stepwise approach, this guide walks readers through a comprehensive process:

- Educate the congregation
- Identify champions
- Organize working groups
- Partner with local governments
- Identify green infrastructure opportunities at their places of worship

The document includes information to help congregations plan, design, and build as well as links to resources and tools for assessing and mapping areas to place green stormwater practices.

The guide will be disseminated to communities around the country and is available at https://www.epa.gov/nps/saving-rain-green-stormwater-solutions-congregations.



News

Asian Longhorned Beetle Detected in South Carolina

USDA Asks Area Residents to Report Signs of the Beetle and to Not Move Firewood

WASHINGTON, June 15, 2020 — The U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) and the Clemson University's Department of Plant Industry (DPI) are inspecting trees in Hollywood, South Carolina following the detection and identification of the Asian longhorned beetle (ALB).

On May 29, a homeowner in Hollywood contacted DPI to report they found a dead beetle on their property and suspected it was ALB. A DPI employee collected the insect the same day and conducted a preliminary survey of the trees on the property. Clemson's Plant and Pest Diagnostic Clinic provided an initial identification of ALB, and on June 4, APHIS' National Identification Services confirmed the insect. On June 11, APHIS and DPI inspectors confirmed that one tree on the property is infested, and a second infested tree was found on an adjacent property.

Find out more: https://www.aphis.usda.gov/aphis/newsroom/stakeholder-info/sa_by_date/sa-2020/sa-06/alb-sc

Asian Longhorned beetle, Mollie Freilicher

Asian Longhorned Beetle and Massachusetts

Massachusetts still has an active cooperative eradication program and regulated area that covers all of Worcester, Shrewsbury, West Boylston, Boylston, and parts of Holden and Auburn. Residents all across Massachusetts are encouraged to be on the lookout for adult beetles this summer and signs of infested trees.

Think you've seen it? Report it at https://massnrc.org/pests/pestreports.htm.

Headlines in Brief

Town of Brookline Parks and Open Space Division of Department of Public Works to Host Meeting

The Other Census: Count of Chicago Area's Trees Underway. Here's Why It Matters

Montreal Tree Inventory Project Adapts to COVID-19 Limitations

Walking App Helps Tree Lovers Know Their Sycamores from Their Maples (How cool is this?!)

Pervasive Shifts in Forest Dynamics in a Changing World

Loggers Request Congressional Aid to Offset Covid-19 Losses

How Cities Can Add Accessible Green Space in a Post-Coronavirus World

What Is A Derecho? An Atmospheric Scientist Explains These Rare but Dangerous Storm Systems

Bedrock Type Under Forests Greatly Affects Tree Growth, Species, Carbon Storage

Rethinking Our Built and Open Spaces After A Pandemic

This Is How Firefighters Are Preparing to Battle Wildfires During a Pandemic

What if Medicaid Paid for Trees?

On the Horizon

July 1 Pruning Trees and Shrubs Webinar, 12:00 p.m. (EDT), Penn State Extension

July 8 Rx for Hot Cities, Urban Forest Connections Webinar, 1:00 p.m. (EDT)

July 9 Energy Benefits of Trees Webinar, 12:00 p.m. (EDT), Urban Forestry Today

July 14 TREE Fund Webinar, 5:00 p.m. (EDT), Enhancing Tree Health in Water Sensitive Urban Design: Role of Mycorrhizae

July 16 New England ISA Tree Risk Workshop (Online), www.newenglandisa.org

July 16 i-Tree and the Urban Forest Webinar, 9:00 a.m. (EDT)

July 22 Managing Emerald Ash Borer and Climate Change, 12:00 p.m. (EDT), www.forestadaptation.org

July 27 Tree Identification Procedures, 10:00 a.m. (EDT), University of Georgia

Aug 12 Urban Forest Connections Webinar, 1:00 p.m. (EDT)

Aug 13 Trees, People, and Technology Webinar, 9:00 a.m. (EDT)

Anytime: Archived webinar on tree planting in the era of COVID-19 (from Trees Forever)

Looking for more?

Check out the calendar of the New England Chapter ISA for additional opportunities: https://newenglandisa.org/events

The Citizen Forester is made possible through a grant from the USDA Forest Service Urban and Community Forestry Program and the Massachusetts Department of Conservation and Recreation, Bureau of Forestry.

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www.mass.gov/dcr/urban-and-community-forestry

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.