



THE CITIZEN FORESTER

Urban & Community Forestry Program

JANUARY 2020 | No. 264

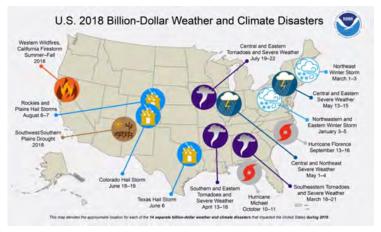
Everyone Knows What a Disaster Is. Don't They?

Adapted from Vibrant Cities Lab

Depending on where you are, the nature of disaster, how you prepare for it, and the resources available to respond will differ from time to time and place to place. One thing is sure: ultimately, you'll have one.

When is a disaster a DISASTER?

For practical purposes, it's not a formal disaster until someone says it is. Depending on who that person is, the resources you can draw on for recovery could differ dramatically. Only when local and state resources are overwhelmed, can the governor [and just the governor] request federal assistance. Broadest support is available through Presidential Declared Disasters. That's when the Federal Emergency Management Agency (FEMA) steps in and works directly with state agencies. Check out the Community Resilience Planning Guide for information on



how FEMA supports communities and other ways a community can plan for disasters common to the area. The guide, produced by the National Institute of Standards and Technology, is available here.

2008

2018

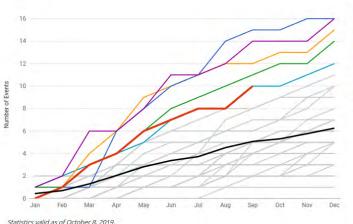
2016

2011

2017

2019





"Undeclared" disasters are devastating too! And frequent.

Don't let nomenclature dictate planning, response or recovery. If you simply plan for the "big one" you may be unprepared for more frequent, less dramatic events. Add up as many as several hundred "minor" incidents a year in each state, and the costs can rival a mega-storm like Harvey, which affected Texas and

The National Oceanic and Atmospheric Administration tracks

Louisiana.

severe weather events in all 50 states, and you can look up events statewide or county-wide going back to 1950. Events are listed by county, community, or neighborhood or village. To see what sort of severe events your community experiences <u>click here</u>.

Does a "hundred-year event" occur only once a century?

Not really. Major flooding events are commonly described to occur once every 10, 100, or 500 years. But that doesn't mean if you've just suffered a "100-year" flood,

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you won't see another one for a century. These projections are backward-looking and, more important, probalistic. Anyone who's flipped a coin knows that [even though the odds of flipping heads is 50/50 each time you try] it's certainly possible to throw heads three times in

a row. Not likely, but possible.

Ellicott City, Maryland suffered three 100year floods in a single



Ellicott City, MD

decade. Officials and citizens still grapple with how to prevent future catastrophes, especially since major upstream development over past decades has disrupted the watershed.

Other storm events such as wind, ice, and fire also have frequency intervals. The likelihood of a catastrophic ice storm event at a specific location might be once every 30 years or more. But within the region that ice storms occur, a severe event will likely occur some place annually. Next year it could happen to your community. Again.

What about the trees?

Most trees fail during severe events because they're diseased, or they've suffered pre-existing damage; though any tree (or part of a tree) can fail when the load exceeds the capacity of the tree (or tree part) to bear the load.

As demonstrated in the Resilience Action Guide, comprehensive monitoring and maintenance **before the fact** will be your first line of defense when the storm hits.

Here's a list of the most common tree defects, compiled by Professor Rich Hauer at the University of Wisconsin, Stevens Point.

Some of the defects that put trees at risk include:

Cracks result when wood tissue separates and develops a noticeable split. Not all cracks are equal. A



Shear crack (Randy Cyr, Greentree, Bugwood.org)

equal. A horizontal crack occurs across the

occurs across the wood grain, or perpendicular to the tree trunk length. When this less commonly seen crack develops, the tree is in the process of failing sooner, rather than later. A vertical crack goes with the grain of the tree. As additional wood grows, it may roll into the tree trunk or grow outward as a ribbed crack from trunk tissue attempting to seal the crack. Some trees recover from cracks, but they are more susceptible to failure during storms.

Dead Trees and Parts occur from a variety of causes, and, given time, these trees and parts will fail. Where damage or injury to people or



Dead ash trees (Steven Katovich, Bugwood.org)

property is unlikely, consider leaving dead trees and parts for wildlife. Removing dead trees or parts should occur as soon as possible, once the decision has been made

for their removal. However, they should be removed immediately or considered a priority when major property damage and/or human injury are eminent outcomes.

Decay is the loss of wood structure, and results in rot or total wood loss. In general, a tree can tolerate a portion of wood with decay. As 1/2 to 2/3rds of the stem diameter becomes decayed,

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Everyone Knows What a Disaster Is. Don't They?



Stem-girdling root. Also note weak branch unions. (Jason Sharman, Vitalitree, Bugwood.org)

(Continued from page 2)

the tree progressively becomes more prone to failing during a storm. Trees with only 1/3 of stem diameter remaining are at risk of failure in moderateto-severe storms. Tree decay associated with others defects such as cracks, poor architecture, or weak branch unions may increase the chance of failure.

Poor Architecture of trees occurs when the growth is unbalanced. This defect may occur throughout the tree, in the roots, stem, and branches. Leaning trees are an example, but having a lean may not necessarily mean a tree is at high risk to fail. A lean associated with recent soil movement, however, is an indicator of greater threat.

Root Problems occur through many ways and result in inadequate anchoring. Severing roots during construction is one cause. Planting trees too deep may result in stem girdling roots. Placing excessive fill or removing soil can damage roots and lead to anchoring issues. A

telltale sign of root issues is often the dieback of the tree canopy. However, not all root severing will show symptoms over time. The loss of 30% to 50% and more will make trees prone to toppling.

Weak Branch Unions result when a branch or two adjoining stems are poorly attached to the tree or to each other. A classic example called "included bark" results from bark tissue between a branch and the trunk or two similar-sized branches at a forking juncture. Another poor Bugwood.org)



Weak branch union, resulting in a crack. Note similarly-sized leaders (Brenda Lucas,

attachment occurs when a shoot forms as the

result of injury or environmental stress. This branch type can be especially prone to failure when associated with decay.

Cankers are dead tissue of the bark and wood. They develop into wounds from equipment hitting the tree stem, animals, insects, and disease. When a canker becomes large, or when several small cankers join, a tree



Canker (Joseph O'Brien, USDA Forest Service, Bugwood.org)

becomes more likely to fail during storms. Cracks or decay may interact with the canker and exacerbate the problem.

Based on work by Professor Rich Hauer, PhD, University of Wisconsin, Stevens Point

Note: It has always been important for communities to survey or inventory trees, and as we continue into the era of an increasing number of intense weather events, the importance of knowing the condition of trees in our communities has only grown.

There are lots of ways to conduct a tree inventory or survey for communities of all sizes. For any tree inventory or survey it is important that whoever is assessing the trees is qualified to do so.

Contact the Urban and Community Forestry program to talk about steps your community can take toward a more comprehensive understanding of your urban forest.

Julie Coop, 617-626-1468, Julie.coop@mass.gov or Mollie Freilicher, 413-577-2966. mollie.freilicher@mass.gov.

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Species Spotlight—Urban Tree of the Year: Hackberry (*Celtis occidentalis*)

By Michelle Sutton

Each fall, members of the Society of Municipal Arborists (SMA) nominate and vote for the SMA Urban Tree of the Year. You can see a list of winners going back to 1996 here.

Here's a reflection on the 2020 SMA Urban Tree of the Year, hackberry



Young hackberry (*Celtis* occidentalis) used in extended road median in Poughkeepsie. Photo by Michelle Sutton

(Celtis occidentalis), from New York Tree Trust Development Director and NYSUFC Board Member James Kaechele. Following that is a word about transplanting hackberry from Urban Horticulture Institute (UHI) Director and New York State Urban Forest Council Board Member Nina Bassuk and former UHI graduate student Michelle Sutton.

James Kaechele, New York Tree Trust Development Director, NYC Parks:

This fine native tree is an underestimated contributor to many an urban forest. With a wide



Characteristic corky-warty vertical bark ridges of hackberry. Photo by Michelle Sutton

native range from New England through the Mid-Atlantic and west to Wyoming, hackberry grows in rocky, alkaline sites where other trees may struggle. It weathers cold and windy winters through USDA Hardiness Zone 2 and sweats the hot summers of Zone 9; it seems equally happy curbside in Toronto as it does in a Washington. D.C. neighborhood park.

Hackberry's mature size varies correspondingly with planting location, commonly growing to 40 to 60 feet, with exceptional specimens approaching 100 feet. The most handsome hackberry in New York City grows along the Mosholu Parkway; it approaches 80 feet (24 m) in height, with remarkable American elm-like branching structure.

Alongside measurable eco benefits like cleaning air and water, hackberry provides a home and food to many a native creature. Songbirds (and humans) snack on the ripe, small, berry-like drupes that are

high in protein and somewhat sweet. Hackberry leaves support the life cycle of numerous gallproducing insects; the resulting gallridden leaves are more of an unsightly irritation than



Hackberry foliage and fruit. Photo by Kathy Zuzek, from extension.umn.edu

they are detrimental to the tree's health. Perhaps this informs where to plant hackberry: anywhere folks are not looking too closely at the leaves. There have been a number of cultivars that claim improved resistance to galls and witches' brooms; others are selected for form and vigor. The upright form of 'Prairie Sentinel' lets you sneak a tree into a spot that may be otherwise too skinny for a full-width tree. The increased vigor of 'Magnifica' is nice, but comes with a reduced cold hardiness owing to its mixed parentage from *C. laevigata*, known through the South as sugarberry. For me, planting out seedling grown hackberry is a fine choice, if that's what you have available.

UHI Director Nina Bassuk/Former Graduate Student Michelle Sutton:

Research by Cornell's Urban Horticulture

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Species Spotlight—Urban Tree of the Year: Hackberry *(Celtis occidentalis)*

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Institute (UHI) found that hackberry can be successfully transplanted in fall or spring, balled and burlapped (B&B) or bare root (BR). However, the study found that fall-planted BR hackberry had a slight edge over spring-planted bare root hackberry, and that when it came to spring planting, B&B hackberry trees grew somewhat better than bare root hackberry trees. Researchers concluded that if a community wants to try planting bare root hackberry trees in order to save resources, preserve fine root systems, and allow more public participation, they should do it in the fall. This and all UHI bare root recommendations assume that bare root trees of any species will be handled according to UHI's guidelines in Creating the Urban Forest: The Bare Root Method.

About the straight species of hackberry, Nina Bassuk further adds: "My experience with hackberry over the years is that it is not as drought tolerant as reported. In a droughty situation, the leaves can become somewhat yellow (not in the same way as the yellow presented by interveinal chlorosis). It also suffers from nipple gall and witches' broom. Overall it is a survivor, but folks should be aware of some of hackberry's limitations."



Native range of hackberry. Based on molecular evidence, hackberry has been reclassified by plant taxonomists away from the elm family (*Ulmaceae*) and into the hemp family (*Cannabaceae*). This appears to have been initiated by the Angiosperm Phylogeny Group in 2009, and in the years since, most major arboreta have accepted this reclassification.

Correction: For those early readers of our November issue, please note that we listed the incorrect family for cedar of Lebanon (*Cedrus libani*) in the Species Spotlight. Cedar of Lebanon is in the Pinaceae (the pine family). The online versions of the newsletter reflect this correction.

Growing on Trees

DCR First Day Hikes – free!

Start the year in the great outdoors of Massachusetts.

Hikes are located across Massachusetts. Some feature hot chocolate (or even chowder!), to warm up after the hike.

For more details on hikes and for registration information, go to: https://www.mass.gov/service-details/upcoming-dcr-programs-and-events.



River Bend Farm, Blackstone River and Canal State Park, Uxbridge, MA (Wikipedia)

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Growing on Trees—Webcasts and Events

USDA Forest Service Urban Forest Connections

January 8, 2020, 1:00 - 2:15 pm (EST)

Investigating the Stormwater: Quantity and Quality Impacts of Urban Trees

Bill Selbig, USGS Rebecca Dohn, City of Nashville

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

Urban Forestry Today

January 9, 2020 | 12:00 - 1:00 p.m. (EST)

Using Facebook & Social Media to Promote Urban Forestry

Dr. Bret Shaw, University of Wisconsin

Go to www.joinwebinar.com; code: 458-018-411

Free ISA and MCA CEUs available.

To view archived webcasts, go to www.urbanforestrytoday.org/

TREE Fund Webinar

January 14, 2020 | 2:00 - 3:00 p.m. (EST)

Soil Assessment for Urban Trees

Dr. Bryant Scharenbroch, University of Wisconsin, Stevens Point

This free webinar is co-sponsored by the Utah State University Forestry Extension

www.treefund.org/webinars

Woodland Stewards Webinars

Thursdays in February.

Find out more at <u>forestrywebinars.net</u>.

Forest Adaptation Webinar Series

The Northern Institute of Applied Climate
Science NIACS and the Forest Stewards Guild
are teaming up to offer a new webinar series
focused on forests and climate change
adaptation. The series will bring together
scientists and managers to learn about and
discuss emerging topics related to the effects of
climate change on forest management, with a
focus on forests in New England and New York.

Each session will first explore the latest scientific information from someone actively researching the issue, followed by an example of a real-world management project.

Continuing education credits from the Society of American Foresters are available.

January 16 at 12:00: Assisted Migration
Tony D'Amato, University of Vermont, and Kevin
Evans, Dartmouth College

February 27 at 12:00: Climate Refugia
Toni Lynn Morelli, Northeast Climate Adaptation
Science Center and Rebecca Quinones and Brian
Hawthorne, MassWildlife.

March 19 at 1:00: Warming Winters
Pam Templer, Boston University, and Robert
Turner, RJ Turner Company

April 16 at 12:00: Changing Hydrology John Campbell, US Forest Service Northern Research Station, and Erin Rodgers, Trout Unlimited

May 21 at 12:00: Forest Birds
Steve Matthews, Ohio State University, and Tom
Lautzenheiser. Mass Audubon

June 25 at 12:00: Regeneration Issues
Kathryn Miller, National Park Service, and Chris
Zimmerman, The Nature Conservancy

Find out more at: https://forestadaptation.org/ learn/forest-adaptation-webinar-series



Growing on Trees—Webcasts and Events

MTWFA Annual Conference

Mass. Tree Wardens' and Foresters' Association January 7-8, 2020 | Sturbridge

Keynote Speaker: David Rendell, talking about "The Freak Factor"

Download the <u>conference brochure</u> and find out more at <u>masstreewardens.org</u>.

Early-bird registration is open through January 4, 2020.

Environmental History Seminar

January 14, 2020 | Boston

"Wealth and Beauty in Trees: State Forestry and the Rehabilitation of Massachusetts's Economy, Landscape, and Culture, 1898-1919"

Aaron Ahlstrom, Boston University

Find out more: www.masshist.org/2012/calendar/seminars/environmental-history

Sponsored by the Massachusetts Historical Society

Other Classes & Seminars

Arnold Arboretum

Arboretum for Educators — Select Saturdays Landscape for Life — January-February

Winter Tree ID — January 25

Botany Blast: What is Biodiversity and Why Does It Matter? — January 28

Asa Gray, Charles Darwin, and the Discovery of Intercontinental Disjuncts — February 3

Grafting Woody Plants: Fruit Trees — February 26

Cultivating Space: Women in Horticulture and

Place-making—March 7

Greenovation: Urban Leadership on climate

Change — April 9

For additional programs:

www.arboretum.harvard.edu/education/adult-education

Urban Tree Symposium

February 6, 2020, 8:30 am-4:30 pm | Tower Hill Botanic Garden (Snow Date: February 7)

Co-sponsored with Ecological Landscape Alliance.

Join us as experts in the field explore the importance of our urban forests, as well as ways we can create sustainable urban forests for the future.

The program includes:

The State of the Urban Forest in the Northeast Chris Roddick, Head Arborist, Brooklyn Botanic Garden

Using Technology to Manage the Urban Forest David J. Nowak, PhD, Senior Scientist / i-Tree Team Leader, US Forest Service

Management Options for Insect Pests of Trees and Shrubs

Tawny Simisky, Extension Entomologist, UMass Extension Landscape, Nursery, and Urban Forestry Program

Tree Selection, Establishment, and CareBill Logan, Founder and President of Urban
Arborists

How to Increase the Urban Canopy Panel Discussion

Breakfast and lunch are included.

Find out more at www.towerhillbg.org/ or register here.

Other Classes & Seminars

Native Plant Trust

Native Plant Trust Book Club: Around the World in 80 Trees — January 16

Winter Botany - January 31

Winter Pruning — February 27

Tales from the Field: Botany Story Slam -Feb. 29

And more: www.nativeplanttrust.org/education/ classes/

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Growing on Trees

2020 DCR Arbor Day Poster Contest

Fifth grade classes from public and private schools across the Commonwealth are encouraged to participate in the annual Arbor Day Poster Contest by having fifth-grade students create posters highlighting this year's theme, Trees Please, and then hosting a school poster contest. The winning poster from each school can be submitted to DCR. Home-schooled or nonparticipating school students may submit their posters and enter the contest individually.

All 5th grade students in Massachusetts are invited to participate in this annual contest that combines art and science.

Contact Mollie Freilicher mollie.freilicher@mass.gov or 413-577-2966

WWW.MASS.GOV/GUIDES/ANNUAL-ARBOR-DAY-POSTER-CONTEST

All 5th grade students in Massachusetts are invited to participate in this annual contest that combines art and science.

Contact Mollie Freilicher mollie.freilicher@mass.gov or 413-577-2966

2020 Arbor Day Poster Contest

The Arbor Day Poster

Contest is sponsored by the Department of Conservation and Recreation, the U.S. Forest Service, and the Massachusetts Tree Wardens' and Foresters' Association.

For complete rules and guidelines, go to the Arbor Day Poster Contest page on the DCR website.

NASF Centennial Challenge

The National Association of State Foresters is turning 100!

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." We are asking people to 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 www.stateforesters.org/centennial/.



Legacy tuliptree in South Hadley.



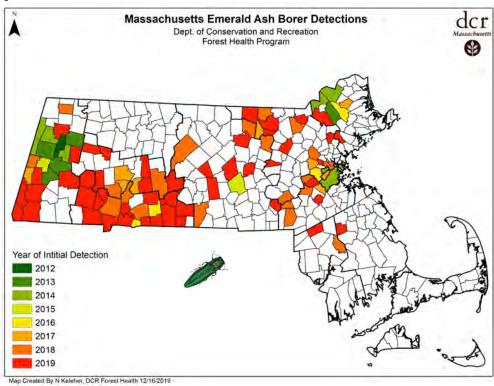
Growing on Trees

Emerald Ash Borer Update

As of December 16, 2019, emerald ash borer (EAB) has been detected in 99 communities in 10 counties in Massachusetts.

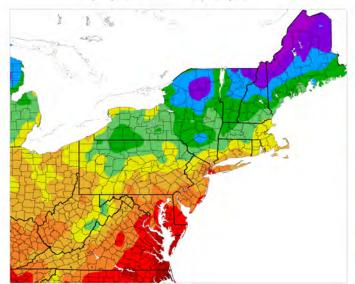
Emerald ash borer attacks ash trees (*Fraxinus* spp.), as well as fringetree (*Chionanthus virginicus*). It does not attack mountain ash (*Sorbus* spp.), which is in a different family.

Check out this video from the University of New Hampshire on how to identify ash trees. Once you get an eye for the form, the coarse, oppositely-branched texture, and for the bark, winter can be a good time to identify ash in your community. Learn how to identify signs and symptoms



of EAB here. Think you've seen EAB? Report it at massnrc.org.

Average Minimum Temperature (F) 1/1/2019 - 12/29/2019



Drought MonitorAs of December 24,

As of December 24, 2019, dry conditions have ended across Massachusetts. This month we're showing the average minimum temperature for the year in the Northeast.

Find out more at the Northeast Regional Climate Center: www.nrcc.cornell.edu.

For drought information: droughtmonitor.unl.edu/.

There you can find out about weather and climate trends in the northeast and beyond.

Generated 12/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

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Gleanings

Citizen Advisory Boards in Urban Forestry: Who Are Members and Why Do They Serve?

Greening the Gateway Cities Urban Forester Sarah Greenleaf has just published a research paper in Urban Forestry and Urban Greening from her Master's work on tree committees. Sarah completed her Master's in Urban Forestry in 2016, working with Dr. Paul Ries at Oregon State University.

Abstract: In many US cities, urban forest management efforts are commonly supported by citizen advisory groups, which are often generically referred to as "tree boards." Very little is known about tree boards and the volunteers who serve on them; consequently, this study addresses this knowledge gap by investigating a sample of urban forestry tree boards that were part of the Arbor Day Foundation Tree City USA program. Surveys distributed to Tree City USA tree boards inquired about basic structure of the boards. demographics of the individuals who serve on them, and their motivations to serve. Results provided insights into what Tree City USA tree boards looked like and offered a profile of their typical board member. Compared to national demographic data, board member composition was considerably less diverse in race and ethnicity, indicating that these citizen advisory groups may not accurately represent the

communities impacted by their decision-making. Survey responses indicated that the majority of tree board members were motivated to volunteer on their respective board because they were interested in the management of their urban forest. Additional analysis revealed that certified arborists and individuals in the natural resources profession were most likely to volunteer in order to gain career-related experience and opportunities, when compared to non-certified arborists and individuals in different professions. Findings also suggest that volunteer motivations can be used to direct member recruitment, thereby improving effectiveness of community input in urban forest management.

Interested in downloading the article?

This link will be active until January 23, 2020: https://authors.elsevier.com/c/1aAj05m5d7lyyP

Greening the Gateway Cities

Greening the Gateway Cities tree planting crews in Leominster (left) and Chelsea (right), planting trees this past fall.

To find out more about this program, go to: www.mass.gov/service-details/greening-the-gateway-cities-program







News

Tree Planted to Honor Both USS Massachusetts Battleship, Submarine Crews

By Amanda Burke

December 7, 2019—Fall River — On Sunday morning, an American elm tree took center stage in a ceremony at Heritage State Park held to honor the connection between the Battleship Massachusetts and a Navy submarine that will bear the Bay State's name.

"This tree-planting provides us the opportunity to connect the sailors of the Battleship Massachusetts with the sailors of the submarine Massachusetts," said Dinis Pimentel, chairman of the USS Massachusetts Commissioning Committee.



Pimentel spoke to a group of

attendees that included family of crew members who served aboard the battleship and sailors who will serve aboard a Navy submarine that will bear the same name.

Slated for completion in 2022 or 2023, the submarine will be the first active Navy vessel to be called Massachusetts since Fall River's famous battleship was decommissioned in 1947.

Read the full story at <u>heraldnews.com</u>.

News Headlines in Brief

<u>Urban Resources Initiative Kicks Off Street-Tree</u> <u>Pruning Season</u>

Conservation Partnership Protects 1,000 Acres of Forestland in Four Towns

<u>Cities and Their Rising Impacts on Biodiversity—</u>
<u>A Global Overview</u>

<u>Pittsburgh Schoolchildren Plant More Than 700</u> <u>Trees</u>

<u>Appreciating the Need For — And the Beauty of — The Urban Forest</u>

Philly Neighborhoods Need More Trees. A New City Initiative Takes on the Problem.

<u>Scientists Accidentally Discover a New Water</u> Mold Threatening Christmas Trees

What Happens to Invasive Species in the Winter?

The Best Books of 2019 (from the American Society of Landscape Architects)

Forget the Log Cabin. Wood Buildings Are
Climbing Skyward - With Pluses for The Planet
Conservation Partnership Protects 1,000 Acres
of Forestland in Four Towns

On the Horizon

- Dec 31 Deadline for Tree City, Tree Campus, and Tree Line USA applications, contact Mollie Freilicher 413-577-2966 or mollie.freilicher@mass.gov for details
- Jan 6-8 Tree Risk Assessment Qualification Course, New England ISA, Portsmouth, NH, www.newenglandisa.org
- Jan 7-8 Annual Conference, Mass. Tree Warden's and Foresters' Association, Sturbridge, www.masstreewardens.org
- Urban Forestry Today Webcast, Using Social Jan 9 Media, 12:00 p.m. (EST), www.urbanforestrytoday.org
- Jan 9 Tree Risk Assessment Qualification Renewal Course, New England ISA, Portsmouth, NH, www.newenglandisa.org
- Jan 10 Tree Risk Assessment Qualification Renewal Course, New England ISA, Portsmouth, NH, www.newenglandisa.org
- Jan 14 TREE Fund Webinar, Soil Assessment, 2:00 p.m. (EST), www.treefund.org/webinars
- Jan 14 "Wealth and Beauty in Trees," Environmental History Seminar, Boston, www.masshist.org
- Jan 20 Crew Leader Qualification Workshop, Littleton, www.tcia.org

- Feb 4 Oak Health Workshop (geared toward woodland owners), Belchertown, contact Doug Hutcheson, 413-545-7020
- Feb 6 Urban Tree Symposium, Tower Hill Botanic Garden, Boylston, www.towerhillbg.org
- Feb 9 Tu B'Shevat, "New Year of the Trees"
- Feb 23- Municipal Forestry Institute, Gulf Shores, AL, 28 www.urban-forestry.com
- Feb 24- National Green Infrastructure Certification
- 28 Program, Boylston, www.ecolandscaping.org
- Feb 26- ASCA Consulting Academy, Sacramento, 29 www.asca-consultants.org
- Feb 26 ISA Certification Exam, Worcester, MA, www.newenglandisa.org
- Mar 4-5 ELA Conference & Eco-Marketplace, Amherst, www.ecolandscaping.org
- Mar 10 UMass Community Tree Conference, Amherst
- Mar 15 Deadline for DCR Arbor Day Poster Contest
- Apr 10 MCA Arborist Exam, MA Arborists Association. Wellesley, www.massarbor.org
- **Apr 24** Arbor Day in Massachusetts
- Apr 26 Town Forest Event, DCR & Partners, West Springfield

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.

Bureau of Forestry

Department of Conservation and Recreation

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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.),

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