Massachusetts Department of Conservation and Recreation

THE CITIZEN FORESTER

Urban & Community Forestry Program

APRIL 2020 | No. 237

Gypsy Moth Update and Predictions for 2020

By the **DCR Forest Health Program**

The gypsy moth, *Lymantria dispar*, was first introduced to the United States in 1869 when a small population was accidentally released in Medford, MA. Their strong preference for oaks, and ability to survive on a wide range of hosts, allowed gypsy moths to make our hardwood forests home. Over the next 150 years, this invasive insect has been a destructive nuisance in the commonwealth. We have gone through cyclical outbreaks that cause defoliation and, during the most severe outbreak events, tree loss.

Gypsy moths cause damage to trees during their caterpillar life stage. In Massachusetts, overwintering eggs will hatch in early May (or late April in warmer years). The tiny black caterpillars will begin their journey up into tree canopies where they will begin feeding on the foliage. Caterpillars will continue to grow and feed until late June. During outbreak events, dense populations of ravenous caterpillars can cause total defoliation of our urban trees and forest hardwood stands.

Year	Acres Gypsy Moth Defoliation	Acres Oak Mortality
2014	231	-
2015	38,175	-
2016	349,866	-
2017	923,186	-
2018	159,705	23,602
2019	9,955	57,912

Acres of defoliation due to gypsy moth and acres of oak mortality caused in part by gypsy moth.

Historically, gypsy moth outbreaks occurred every 5-10 years throughout the state. The severity, extent, and duration of the outbreaks varied and the most severe defoliation event occurred in 1981 when an estimated two million acres were affected by gypsy moth. However, in 1989, a host-specific fungal pathogen, *Entomophaga maimaiga*, became established in the landscape and broke our cycle pattern. *E. maimaiga* had a devastating effect on the caterpillar populations. This soil-borne fungus is able to infect gypsy moths during the spring while they are feeding as caterpillars; under ideal conditions, it can cause over 90% mortality. For nearly three decades, *E. maimaiga*, in tandem with other natural population controls, has kept gypsy moth in check.

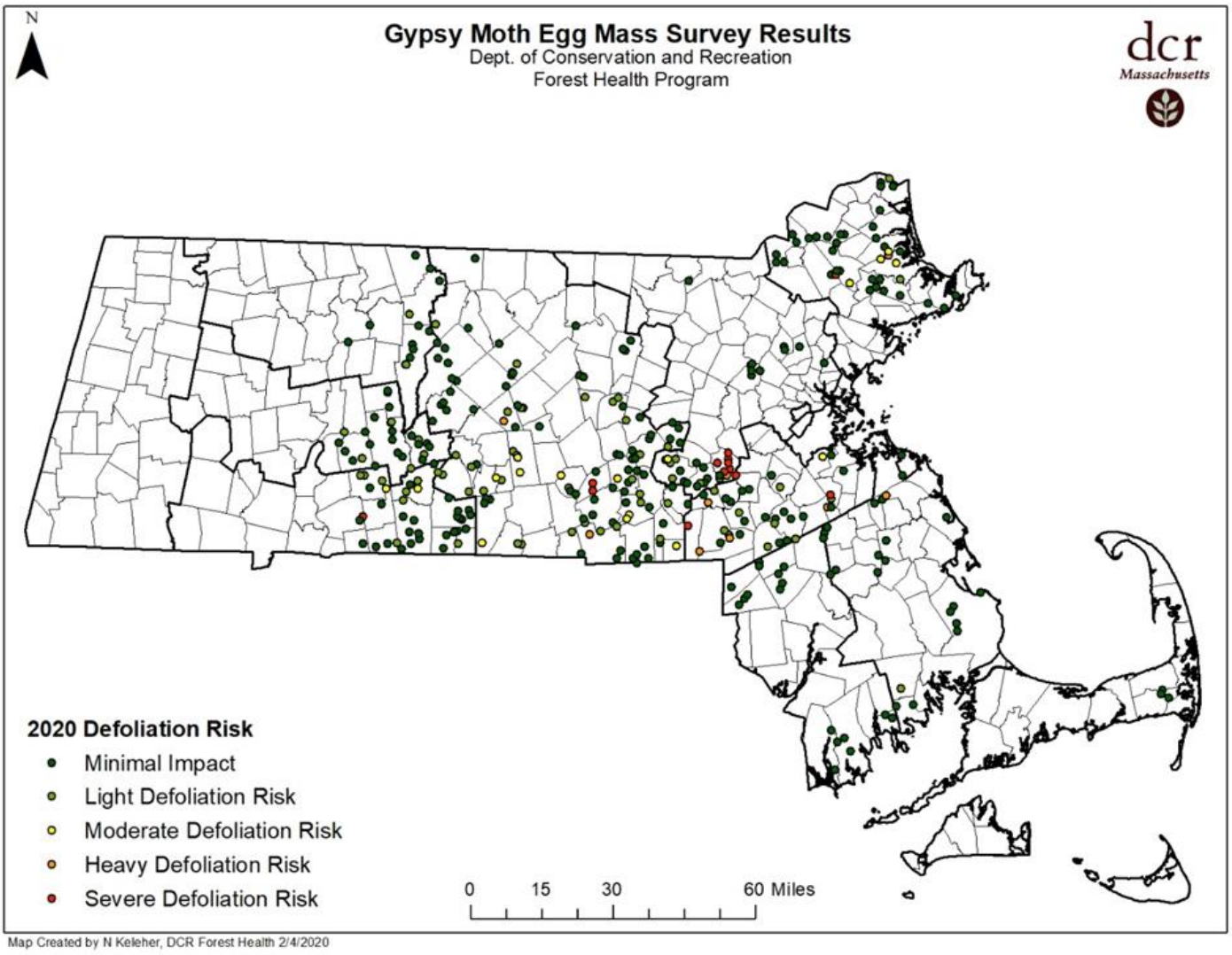
Gypsy moth caterpillars killed by NPV or *Entomophaga maimaiga*.

The recent gypsy moth outbreak event in Massachusetts was caused by deviations from our typical spring conditions. Dry springs in 2014 and 2015 limited the effectiveness of *E. maimaiga* and allowed the low-level gypsy moth populations, to which we had become accustomed, to begin to grow. The gypsy moth population density began to climb in 2015, causing 38,175 acres of defoliation statewide, and expanded ten-fold in 2016, to 349,866 acres of defoliation statewide. (See table, above.) Additionally, 2016 brought a severe statewide drought that persisted through most of the year. The drought brought a two-sided impact on the forests: once again, *E. maimaiga*

Up Ahead:

(Continued on page 2)

Gypsy Moth Update and Predictions for 2020



(Continued from page 1)

infection rates were reduced and water stress further weakened defoliated trees.

The recent Massachusetts gypsy moth outbreak peaked in 2017. A tremendous cohort of insatiable caterpillars began their defoliation rampage and caused 923,186 acres of damage. Fortunately, favorable conditions contributed to a significant population crash in June of 2017. Late instar caterpillars succumbed to *E. maimaiga* and nuclear polyhedrosis virus (NPV) infections. We have continued to see the population decline and the number of acres defoliated dramatically decrease in 2018 and 2019. Only 9,955 acres of gypsy moth defoliation were detected in 2019. Cold and rainy weather in May 2019 limited the ability of the newly hatched caterpillars to move up to newly emerged foliage and start feeding. Many young caterpillars died of starvation and a large percentage of those that did begin to feed, eventually perished from the fungal pathogen.

This gypsy moth outbreak cycle has ended and we do not expect widespread defoliation in 2020. However, regionalized pockets of defoliation are still a possibility. Due to the strong influence of natural conditions and controls, it is difficult to predict gypsy moth

(Continued on page 3)

Gypsy Moth Update and Predictions for 2020

Defoliation along U.S. Route 202 in Belchertown, July 2019.

(Continued from page 2)

impact on a local level. It is important to know that gypsy moth population size, distribution, and feeding patterns can be highly localized and vary widely even within a community. DCR forest health staff complete a winter egg mass survey and use the defoliation data of the previous year to determine counties with a high risk of significant defoliation. Statewide, we expect a low level of defoliation. Only small, isolated pockets were determined to be at possible risk of defoliation by gypsy moth in spring 2020 and no counties presented levels of high concern.

Though the outbreak is over, we will continue to see the impact this event had on our hardwood forests. Massachusetts is experiencing unprecedented oak mortality. Combined impact of drought conditions and multiple years of defoliation caused trees to reach a stress threshold and led to a widespread oak mortality event. In 2019, 57,912 acres with notable oak mortality were detected. We may see the decline and loss of additional trees in the upcoming year. Drought stressed and defoliated trees are unable to maintain their typical health and vigor and, as a result, become more susceptible to invasion by native pathogens and insects. Armillaria root disease and two-lined chestnut borer are the most common natives we find causing the secondary wave of mortality.

Female gypsy moths with egg masses.

Gypsy moth will continue to be a part of Massachusetts's forests. Much as we have for the last century and a half, we will continue to experience large population booms interspersed by years of low population density and no noticeable activity. Our forests will recover, but we must work to foster resiliency in the face of climate change. The projected impact of climate change on our precipitation patterns and spring temperatures will further alter the role of natural controls on not only the gypsy moth population, but also our other native and invasive forest pests and diseases.

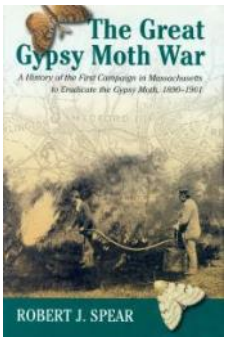
Sources of Information on Gypsy Moth

Gypsy Moth in Massachusetts: https://www.mass.gov/guides/gypsy-moth-in-massachusetts

Gypsy Moth Factsheet: https://www.mass.gov/doc/gypsy-moth-fact-sheet/download

UMass Extension Gypsy Moth Info : https://ag.umass.edu/landscape/fact-sheets/gypsy-moth

Looking for a deep dive into the early history of gypsy moth in the United States? Check out ***The Great Gypsy Moth War*** by Robert J. Spear



Species Spotlight– Japanese white pine, *Pinus parviflora*

By **Mollie Freilicher**

Form, Virginia Tech

This month, we're focusing on another conifer from a different region of the world, Japanese white pine (*Pinus parviflora*). Native to Japan and Korea, this evergreen is one of the easiest conifers to identify, according to Michael Dirr and Keith Warren. Young Japanese white pine trees have lots of cones, which Dirr and Warren note is unlike any other pine in cultivation. As a young tree, the form is conical to pyramidal, and dense. As a tree matures, branches become wide spreading and the top flattens out. Dirr and Warren describe Japanese white pine as having "picturesque character with age."

This slow-growing tree can grow to 75 to 100 feet in the wild, but in cultivated landscapes reaches heights of about 30 feet, with a similar spread. Where it occurs naturally, Japanese white pine grows on steep slopes, rocky ridges, or other dry sites, up to about 5,000 ft. The International Union for the Conservation of Nature notes that some of the smaller-sized cultivars originally came from the subalpine populations, where trees are dwarfed. Japanese white pine is hardy in zones four to seven.

Fruit, Virginia Tech

Japanese white pine has needles in fascicles of five. The needles are one to three inches long, twisted, and tend to be clustered at the ends of branches, like tufts. They are blue-green in color with serrate margins and a blunt tip. On the underside are three or four stomatic bands. Buds are ovoid and are not sticky. Occurring in clusters, male cones are small, one-quarter-inch long, and reddish in color. Female cones are blue-green, one and a half to four inches long, egg shaped, with 30 to 80 scales. As they mature, they turn brown. They remain on the tree for six or seven years and are often at the tips of branches in whorls of three or four cones.

Foliage, Virginia Tech

Japanese white pine will grow best in full sun, in a well-drained, acidic site. Dirr and Warren recommend its use as a specimen or accent plant. Cultivars of Japanese white pine are available at nurseries in Massachusetts. 'Glauca' is a small-to-medium tree (reaching heights of about 30 feet) and is a common cultivar. 'Gimborn's Ideal' is smaller, topping out at about 20 feet and about eight feet wide. Many other cultivars are also available.

Bark, Virginia Tech

References

Dirr, M.A. 1998. Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses. 5th Ed. Champaign, IL: Stipes.

Dirr, Michael A. and Keith S. Warren. 2019. *The Tree Book*. Portland, OR: Timber Press.

From the Woods

DCR and Partners Host Oak Resiliency Workshops during Winter 2020

By **Douglas Hutcheson** MA DCR Service Forestry, along with the Forest Stewards Guild and the MA Tree Farm Program, hosted landowner workshops in Belchertown on February 4 and in Douglas on March 4. The Forest Stewards Guild, a national forestry organization, was the recipient of a United States Forest Service (USFS) grant to inform the public, forest landowners, municipalities, and natural resources professionals about *Oak Resiliency in Southern New England.* The outreach effort began this winter with a series of public meetings designed to both elicit from the attendees their personal experiences with oak, and to provide them with oak-related content presented by DCR and municipal staff. Below are summaries of the two meetings.

Belchertown

Thirty people were in attendance: twenty-one residents from Belchertown and surrounding towns, five licensed foresters, and four licensed loggers. The topics discussed included the gypsy moth defoliation, Lessons from the 1938 Hurricane-local wood salvage efforts, non-native invasive plant and insect species, wildlife habitat, carbon sequestration, climate change, and timber harvesting.

There were several presentations from state and local professionals:

Emma Sass, Family Forest Research Center, *National Woodland Owner Survey (NWOS) Data*

Andrew Rawcliffe, MA DCR Service Forestry, *Oak Acorn Production*

Nicole Keleher, MA DCR Forest Health, *Gypsy Moth Defoliation Update and Overview of Forest Health in MA*

Steve Williams, Belchertown DPW Director and Town Tree Warden, *Update on Hazard Trees in Belchertown*

Christopher Riely, Southern New England Heritage Forest Initiative, *NRCS Funding Opportunities for Forest Landowners*

Town of Douglas residents discuss oak health, March 4, 2020. *Still photo from the recoding of the meeting.*

Douglas

Thirty-four people were in attendance: thirty-three Town of Douglas residents and one licensed forester. Topics included the gypsy moth defoliation, state funding for resident and municipal removal of hazard trees, public safety, and oak salvage activities.

There were several presentations from state and local professionals:

Andrew Rawcliffe, MA DCR Service Forestry, *Oak Acorn Production*

Christopher Capone, MA DCR Service Forestry, *Risk Assessment of Individual Oak Trees*

Douglas Hutcheson, MA DCR Service Forestry, *Wildlife Utilization of Northern Red Oak Stands*

Nicole Keleher, MA DCR Forest Health, *Gypsy Moth Defoliation Update and Overview of Forest Health in MA*

John Furno, Town of Douglas Tree Warden, *Update on Hazard Trees in Douglas*

Christopher Capone, MA DCR Service Forestry, *NRCS Funding Opportunities for Forest Landowners*

***Douglas Hutcheson** is a Service Forester with the DCR Service Forestry program and covers eastern Hampden and Hampshire counties.*

Growing on Trees—Webcasts

EAB University

April 8, 2020 | 11:00 a.m.-12:00 p.m. (EDT)

Eastern Invasive Forest Pest Q&A

Future EAB University webinars:
May 13 - Integrated Chemical & Bio Control of Hemlock Woolly Adelgid: A Resource Manager's Guide

Find out more:
www.emeraldashborer.info/eabu.php

USDA Forest Service Urban Forest Connections

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

CommuniTree: A Model for Engaging Communities in Tree Planting and Maintenance Projects

Drew Hart, USDA Forest Service
Daiva Gylys, Student Conservation Association

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

EPA Soak Up the Rain Webinar

April 9, 2020 | 10:30 a.m.-12:00 p.m. (EDT)

Living Shorelines: Slowing Coastal Erosion and Saving Connecticut Habitats

Register at https://register.gotowebinar.com/register/5004892671512430595

For more information, go to:
www.epa.gov/soakuptherain

TREE Fund Webinar

April 21, 2020 | 1:00-2:00 p.m. (EDT)

A Simple Technique For Online Street Tree Inventories – Is It Right For My Community?

Adam Berland, PhD, Ball State University

Find out More: https://treefund.org/webinars

BayState Roads Workshops

Preparing for an OSHA Inspection
Free, on-demand webinar

Find out more and see additional offerings:
www.umasstransportationcenter.org

Urban Forestry Today

April 2, 2020 | 12:00-1:00 p.m. (EDT)

Diagnosis in Practice

Jennie D. Mazzone, Penn State University

Go to www.joinwebinar.com; code: 531-589-827
Free ISA and MCA CEUs available.

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

TREE Fund Webinar

June 16, 2020–2:00 p.m. (EDT)

Fighting Microbes with Microbes to Protect Our Native Trees

Rachael Antwis, PhD, University of Salford

Find out more: www.treefund.org/webinars

Ecological Landscape Alliance

Noon, Wednesdays, April-June, starting April 8

A Walk in the Garden

Presentations will be hopeful offerings that take you on a virtual garden walk, complete with stunning plant photographs, valuable garden information, and inspiration to take a walk in the garden.

Find out more: www.ecolandscaping.org.

Looking for More?

Check out the frequently-updated listing of online opportunities on the New England Chapter ISA Website.

https://newenglandisa.org/ → Resources → Online Learning and CEU Opportunities

Growing on Trees

Arbor Day News

For 2020, the Arbor Day Foundation is waiving the requirement to observe Arbor Day for all of its recognition programs – Tree City, Tree Line, and Tree Campus USA.

While it may be challenging to hold an in-person event this year, Arbor Day observances could be held virtually this spring, or postponed to a later date. Arbor Day in Massachusetts is officially the last Friday in April (April 24, 2020), but Arbor Day can be celebrated any day of the year.

Looking for ways to celebrate Arbor Day this year? Here are some ideas:

- Planting trees at schools, town commons, along streets, and other locations
- Dedicating a tree
- Giving away seedlings – set up a spot where residents can pick up their own seedling
- Having a tree pruning day
- Inviting a speaker to give a public presentation about trees – in person or online
- Partnering with a local organization to plant trees
- Holding a tree poetry contest through the newspaper or local media
- Hosting a tree walk or organizing a self-guided tree walk

For more info on Tree City, Tree Line, or Tree Campus USA, contact Mollie Freilicher, 413-577-2966.

From the Arbor Day Foundation

A Message Regarding Arbor Day Celebrations

We are all coming to terms with the worldwide spread of the novel coronavirus (COVID-19), and each of us is affected by this pandemic in some way. At the Arbor Day Foundation, we are currently following the guidance of the CDC and WHO and are adjusting both our work environment and our plans for hosting events to match their recommendations for social distancing. You should consult your local or state authorities for restrictions that go beyond the general recommendations. Above all, stay safe and stay healthy.

The celebration of Arbor Day is central to our mission as well as our recognition programs. These events bring communities together to plant and tend the trees that make our cities and towns fulfilling places to live. But this year, prudence must override our desire to celebrate—at least in the same place at the same time. **Therefore, for calendar year 2020, we are waiving the requirement in each of our recognition programs to hold an Arbor Day Observance**. We want to eliminate the worry about continuing your years of participation in our programs, while offering options for how to proceed with a celebration of trees, should you so choose. These will be posted to our webpage in the days to come. We remain open to your ideas, yet flexible on meeting our program standards.

These are uncertain times, for sure. Follow the guidance for health and safety that is issued by local and state officials. Do the best you can to keep your city, campus, and utility tree care programs operating. Keep your staff and citizens healthy and safe. But don't worry about postponing or canceling your state, city or campus Arbor Day event and the impact on your eventual application for recognition.

Sincerely,
Your tree friends at the Arbor Day Foundation

Growing on Trees

Grant Opportunity—Webinar Info Sessions

Municipal Vulnerability Preparedness (MVP) FY21 Funding Round

Please join the Executive Office of Energy and Environmental Affairs (EEA) to learn more about the Municipal Vulnerability Preparedness (MVP) program and the next round of Fiscal Year 2021 MVP Planning Grants and Action Grants.

Three webinars will be held at the beginning of April (registration and details here under "Upcoming Events").

At these virtual sessions, the MVP team will:

- Review the RFR and application process for MVP Planning and Action Grants
- Highlight changes you can expect to see in the upcoming RFR for MVP Planning and Action Grants
- Explore best practices for integrating MVP principles into Action Grant projects
- Request for Responses (RFRs) for each grant type are expected to be released at the end of April 2020 via COMMBUYS.

For questions, contact Kara Runsten kara.runsten@mass.gov or one of the MVP regional coordinators:

- Berkshires and Hilltowns: Carrieanne Petrik; carrieanne.petrik@mass.gov
- Greater Connecticut River Valley: Andrew Smith; andrew.b.smith@mass.gov; 413-755-2242
- Central: Hillary King; hillary.king@mass.gov; 617-655-3913
- Greater Boston: Carolyn Meklenburg; carolyn.meklenburg@mass.gov; 617-626-7825
- Northeast: Michelle Rowden; michelle.rowden@mass.gov; 857-343-0097
- Southeast: Contact any of the regional coordinators above [Our Southeast RC is on temporary leave until later this spring]

From UMass Extension

InsectXaminer—A free short video series highlighting the incredible world of insects!

Episode 1 - Gypsy Moth (*Lymantria dispar*) Check out this episode to reminisce about the 2015-2018 outbreak of this insect!

Find out more: https://ag.umass.edu/landscape/education-events/insectxaminer

UMass Extension Landscape Message

The Landscape Message is an educational newsletter and update intended to inform and guide horticultural professionals in the management of our collective landscape. Scouts compile and record environmental and phenological data for locations throughout Massachusetts to aid in the monitoring of plant and pest development, the planning of management strategies, and the creation of site-specific records for future reference. Detailed reports from Extension specialists on growing conditions, pest activity, and cultural practices for the management of woody ornamentals, trees, and turf are regular features. Sign up to receive Landscape Message or check out archived editions: https://ag.umass.edu/landscape/landscape-message

UMass Extension Diagnostic Lab

On hold due to COVID-19. Check the UMass Extension website for details. https://ag.umass.edu/

Growing on Trees

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**." 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.

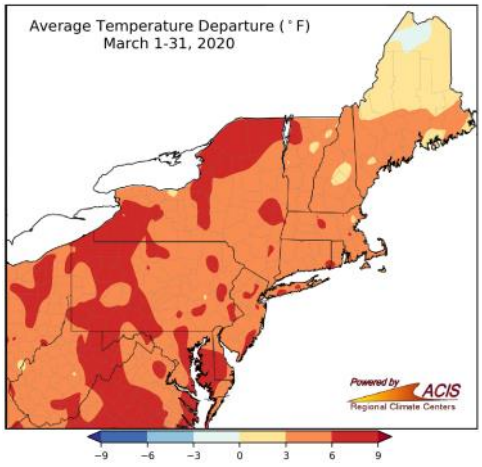
To learn more about the NASF centennial challenge, please visit www.stateforesters.org/centennial/.

Weather and Climate

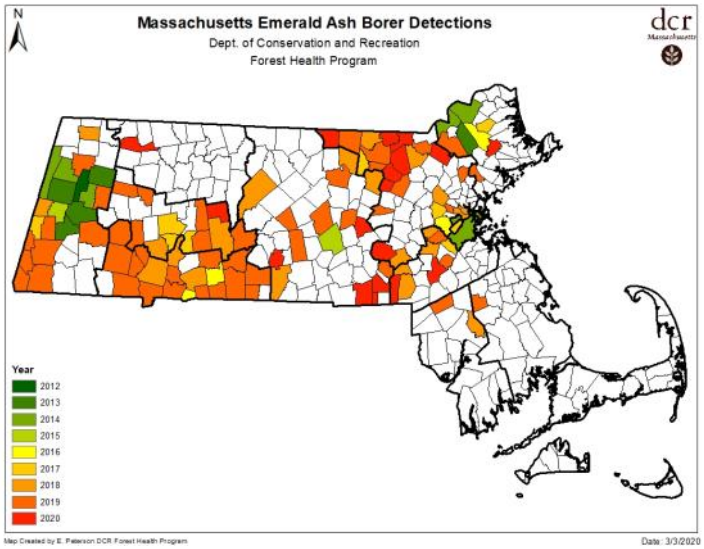
The northeastern United States continues to be out of any drought status and has been receiving near average precipitation. While precipitation has been close to historic averages, temperatures in Massachusetts and in the eastern U.S. continue to be warmer than usual.

Find out more at the Northeast Regional Climate Center:
http://www.nrcc.cornell.edu/regional/drought/drought.html

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



Emerald Ash Borer Update



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

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

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

Want even more info? Check out www.emeraldashborer.info, the EAB clearinghouse where you can find information on infested areas, silvicultural recommendations, treatment information, EAB University, and more.

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

Interested in the latest from MassNRC? Follow MassNRC on Twitter @MassPests

Growing on Trees

Mass Tree Wardens' and Foresters' Association (MTWFA) Seedling Sale

The MTWFA 2020 Arbor Day seedling sale is still on, right up until the upcoming April 15 order deadline. Homebound students (and their parents) are looking for productive projects, and planting seedlings offers multiple opportunities for learning.

Although many Arbor Day celebrations are being postponed or cancelled due to preventive measures around COVID-19, we encourage customers to get creative with an alternative means of distribution, such as setting a designated time and drive-up area for seedlings pickups or giveaways. As long as they are kept cool and moist, seedlings have a reasonable storage life.

Visit the main page of the MTWFA website for more information, including storage ideas for both pre-bagged and bare-root seedlings, and our cancellation policy.

The MTWFA sells seedlings to support the MTWFA Scholarship Fund. To find out more about the program, go to https://masstreewardens.org/arbor-day-seedling-program/.

Gleanings

Curious about i-Tree Landscape?

Check out this video about i-Tree Landscape 2020

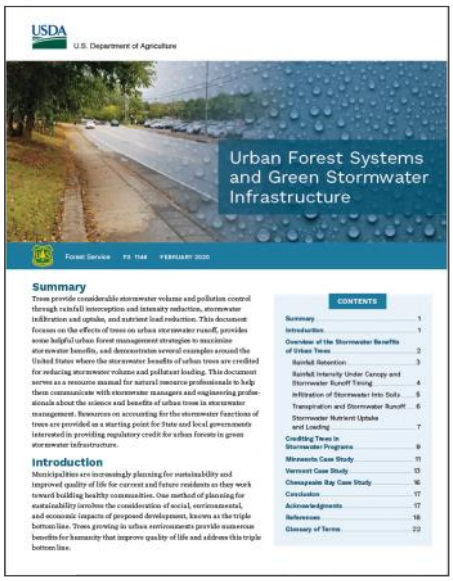
https://vimeo.com/391548795

i-Tree Landscape allows you to explore tree canopy, land cover, and basic demographic information at multiple scales across the United States.

You will learn about the benefits of trees in your selected location, see how planting trees will increase the benefits provided, and map the areas where you decide to prioritize your tree planting efforts.

Explore i-Tree Landscape at: https://landscape.itreetools.org/

Urban Forest Systems and Green Stormwater Infrastructure



The publication Urban Forest Systems and Green Stormwater Infrastructure is a resource manual developed by the USDA Forest Service's National Urban Forest Technology and Science delivery Team that focuses on the effects of trees on urban stormwater runoff. It provides a synthesis of the science around how urban trees help mitigate problems associated with stormwater runoff.

This resource is designed to provide Urban Foresters and Natural Resource Managers some helpful urban forest management strategies to maximize stormwater benefits. Several tree crediting tools and case studies are also provided to help State and local governments better account for the stormwater benefits of urban forests as it relates to reducing stormwater volume and pollutant loading.

View now: https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/Urban-Forest-Systems-GSI-FS-1146.pdf

News

Volunteers Stock Athol Wood Bank

By **Greg Vine**

March 8, 2020—Athol—Volunteers gathered Friday morning to cut and split wood for Athol's wood bank. The bank is available to needy families who can use the wood to heat their homes.

According to Athol Tree Warden Travis Knetchel, the wood bank was created in 2015. "It was the idea of myself and Melissa Levangie; she's the tree warden for Petersham," said Knetchel. "They also have a wood bank."

Knetchel explained that wood for the program comes from roadside trees that need to be removed for safety reasons, or that have been felled by high winds or heavy snows. "The town cuts it," he said, "then the volunteers split it and stack it in bins. The bins are provided by DCR (state Department of Conservation and Recreation). Families can then apply for a voucher at Town Hall, and every fall we award vouchers for those in need. They get a half-cord of wood."

Knetchel said while the wood is intended for those in need, there are no income requirements.

"We just ask that folks be honest about their need," he said.

Knetchel said that, on average, 10 to 15 cords of wood are gathered and cut each year. While each family is initially given a half-cord, he said, "if we have more wood, we can reassess things, and if there's enough, we can donate more if there's still a need."

In addition to the town's public works crews, Knetchel said National Grid will sometimes drop off wood it has collected while clearing branches from power lines or maintaining utility poles. Knetchel said the town has pitched in funds to help support the effort, most recently purchasing a wood splitter.

"We did get a grant this year from the state for $2,000," he added. "We bought a new chainsaw. We bought some accessories for the log splitter. And then we have a little money for personal protection equipment and food for the volunteers." Read the full story at atholdailynews.com.

News Headlines in Brief

Street Network Patterns Reveal Worrying Worldwide Trend Toward Urban Sprawl

Newport's Living Legacy (RI)

What Would Happen if the World Reacted to Climate Change Like It's Reacting to the Coronavirus?

Meet the Ecologist Who Wants You to Unleash the Wild on Your Backyard

The Pros And Cons of Planting Trees to Address Global Warming

'Stumpy' The Short Tidal Basin Tree Is Reaching Peak Bloom, Giving Hope To Washingtonians

City in a Test Tube: Researchers Simulate Urban Pollution to Show How it Damages the Heart

Landscape Architects Shift Emphasis to the Ecosystem

London's Trees Are Saving the City Billions

D.C. Planted Nearly 80 Trees a Day to Reach A Canopy Target. It's Running Out of Space.

Scientists Plant 'Sentinel Trees' to Warn of Devastating Pests

On the Horizon

April 2	Urban Forestry Today Webcast, 12:00 p.m. (EDT), Archived at: www.urbanforestrytoday.org
April 8	EAB University Webinar, 11:00 a.m. (EDT), www.emeraldashborer.info/eabu.php
April 8	Urban Forest Connections Webinar, 1:00-2:15 p.m. (EDT)
April 8	TickTalk Webinar, 12:00 p.m. (EDT)
April 9	EPA Soak Up the Rain Webinar, 10:30 a.m.-12:00 p.m. (EDT)
April 10	POSTPONED - MCA Arborist Exam, MA Arborists Association, Wellesley, www.massarbor.org
April 18	POSTPONED - ISA Certification Exam, Amherst, www.newenglandisa.org
April 21	TREE Fund Webinar, 1:00 p.m. (EDT), www.treefund.org/webinars
April 24	Arbor Day in Massachusetts (or celebrate it any day of the year)
May 13	EAB University Webinar, 11:00 a.m. (EDT), www.emeraldashborer.info/eabu.php
Jun 4	Landscape Pests and Problems Walkabout, Acton, www.umassgreeninfo.org
Jun 11	Ornamental Tree and Shrub ID and Insect Walk, Boylston, www.umassgreeninfo.org
Jun 25	Landscape and Forest Tree and Shrub Insect Workshop, Amherst, www.umassgreeninfo.org
Jul 10-12	Women's Tree Climbing Workshop, Newton

Due to COVID-19, many in-person events are being postponed, cancelled, or modified.

Check event websites for the latest information.

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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Mollie Freilicher, Community Action Forester
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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.

dcr Massachusetts