

The Citizen Forester

OCTOBER 2014

How we Move – and Manage – Troublesome Trees and Plants

By **Richard W. Harper** and
Randall G. Prostak

Years of formal research and informal observation have made it pretty clear: we move

plants regionally, even throughout the world. And when we move them, we seem to be often trying to establish the native plantings outside their natural range, at latitudes higher than they would normally persist in their native forest range. The consequence of this may be that if the climate continues to warm and many more southerly tree species continue to find more suitable habitat in increasingly northern latitudes, urban plants may possibly serve as a seed source for the future migration of native plant populations. After all, plant species commonly found in nurseries and gardens were found to greatly exceed what would typically be considered their “normal” northern native range. To no surprise, however, another consequence of this “assisted migration” may also include the expedited infestation of non-native invasives, like the *Ailanthus* tree.

In recent years, concerns related to the issue of this non-native plant “invasion” have continued to gain momentum. Landowners, gardeners, concerned citizens, and commercial enterprises have made great efforts to focus on the management and removal of problematic, invasive plants from residential landscapes, commercial properties, and community green spaces. An invasive is a non-native plant that has spread into native habitat or other

landscape areas that typically receive minimal management and is known to cause environmental and/or economic detriment, by developing a self-sustaining population that becomes dominant and/or disruptive to native plant systems. While removing these invasives is a noble and worthwhile endeavor, it is important that we consider how we are doing this and examine the practices that we are employing.

Up Ahead:

Migrating Urban Plants	1-2
Species Spotlight	3
Growing on Trees	6
Gleanings	10
News	10
On the	

When we take a closer look at invasive plant management and removal practices, vegetation disposal is a critical component that should be critically examined and evaluated. If disposal is done incorrectly, we could be contributing to the invasive plant problem – even possibly making it worse! It’s also useful to remember that most

plants (weeds included) are not considered to be invasive; only a very small percentage of introduced plants are considered invasive.

When attempting to manage invasive plant populations, the following guidelines should be considered:

1. Whenever possible, invasive plants should be killed and left in place to decay.
2. Composting is a very common practice for disposal of unwanted plant material; however, composting is often not appropriate for the disposal of unwanted invasive plant material. Guideline number 1 is an alternative to composting. Composting could be considered if, and only if, there are no plant propagules (seeds, rhizomes, stolons, bulbs, corms, nutlets and/or root fragments) that may lead to the establishment of new plants and invasions. A strong understanding of the biology of the specific invasive plant being managed will be needed. This understanding will determine the likelihood of its propagules resulting in the spread of the invasive. Seasonal differences may occur. For example, the early season pre-flower growth of Oriental bittersweet could be composted,



Figure 1. Japanese knotweed (*Fallopia japonica*)

(Continued on page 2)

How we Move – and Manage – Troublesome Trees and Plants

whereas the composting of late growth on which fruits are present would be inadvisable.

3. Small to medium amounts of invasive plant material with or without plant propagules can be securely encapsulated in a trash bag and disposed of along with household waste. Some communities and/or waste disposal/collection services frown on this activity; however, it is one of the most effective ways to dispose of invasive plant material and minimize the risk of invasive plant spread.
4. Solarization in black trash bags is not needed for plant material without propagules and is usually not effective on propagules such as roots and rhizomes; therefore, this practice is not recommended.
5. A practice known as “chip in place” may be employed that simply involves putting the invasive plants through a chipper and then taking measures to make sure that the mulch is not moved off-site, but rather left to breakdown. Any germinating members of the “next generation” may then be managed as they make their debut on a plant-by-plant basis.

Perhaps one of the most important components of managing an unwanted plant population is our perspective and attitude as the professional or volunteer manager. Management may be a long-term endeavor; thus, persistence is critical. It is also important to realize that while the ecological and economic challenges and concerns associated with invasive plants are indeed very real and reason for concern, invasives themselves can actually

perform some of the same environmental services that our native plant populations perform. Unwanted trees (like the aforementioned *Ailanthus*) do play a role in sequestering carbon and in providing shade and



Figure 2. Tree-of-Heaven (*Ailanthus altissima*)

wildlife habitat. So, while most experts agree that an active invasives management program is indeed important and the correct manner in which to proceed, managers can take heart knowing that part of the carbon generated by their chainsaws, chippers, and other management mechanisms has actually been offset at least to some degree by the plants that they are removing.

For more information about invasive plants in Massachusetts, visit the Massachusetts Invasive Plant Advisory Group’s (MIPAG) website at www.mipag.net

Richard W. Harper is the Extension Assistant Professor in the Department of Environmental Conservation at UMass-Amherst. Randall G. Prostak is the Weed Specialist for the University of Massachusetts Extension at UMass-Amherst.

Comment Period for Emerald Ash Borer

A public meeting on the Emerald Ash Borer in Massachusetts was held at the Arnold Arboretum on September 23, 2014. The presentations made at this meeting will be viewable at <http://www.mass.gov/eea/agencies/dcr/public-outreach/public-meetings/>.

If you have **questions, comments, or suggestions**, please email DCR.Updates@state.ma.us, noting “EAB” in the email subject line, or write to the Department of Conservation and Recreation, Office of Public Outreach, 251 Causeway Street, Suite 600, Boston, MA 02114.

The public comment period deadline is **October 14, 2014**. Please note that public comments submitted to DCR by email or letter may be posted on the DCR website in their entirety, and no content, including personal information, will be redacted. If you would like to be added to an email list to receive general or project-related DCR announcements, or if you have questions or concerns, please email mass.parks@state.ma.us, call 617-626-4973, or write to the Mass. Department of Conservation and Recreation, Office of Community Relations, at the above address.

Species Spotlight—Chinese elm, *Ulmus parvifolia*

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

Native to China, Korea, and Japan, Chinese elm is adaptable to many parts of North America, readily growing in USDA hardiness zones five to nine, and is even suitable for warmer parts of zone four. In warmer parts of the range, during warm winters, Chinese elm can be evergreen, or nearly so. Another common name is lacebark elm for the tree's ornamental bark, but we'll refer to it as Chinese elm. Chinese elm is a medium-sized tree, reaching heights of 40-50 feet, with a similar width. It has a medium-to-fast growth rate. In certain conditions, Chinese elm can grow much larger. It has a graceful, vase-like habit, reminiscent of American elm, but with a lot of variability.

Like all elms, Chinese elm is alternate, with leaves that are simple and elliptic to ovate. They can range in length from .75 inch to 2.5 inches long and an inch wide and are unequally rounded at the base. Unlike a lot of elms with doubly serrate leaves, Chinese elm leaves are usually simply serrate. Leaves are dark green, turning to yellow or purple in the fall. The stem is gray-brown, fine, and slightly pubescent. The buds are small, around 1/10 to 1/8-inch long, with rounded tips. In our area, Chinese elm flowers in late sum-

mer, but flowers are not of ornamental value. Fruit is a 1/3-inch long samara. The bark of Chinese elm is ornamental, with an exfoliating, mottled appearance of gray patches, tinged with orange at the edges, and lighter patches, where lighter bark is exposed.

Like a lot of trees in the landscape, Chinese elm does best in moist, well-drained, fertile soils, but it is tolerant of extreme pH and multiple soil conditions, making it a candidate for urban areas. It is highly resistant to Dutch elm disease and elm leaf and Japanese beetles. The Latin word for small (*parvus*) and for leaf (*folium*) are the bases for the specific epithet. *Ulmus* is the Latin word for elm. Chinese elm is on the invasive plant lists of several states in the warmer part of its hardiness range, including New Jersey and North Carolina—zones seven and eight, though a recent Clemson University publication, *IPM for Select Deciduous Trees in Southeastern US Nursery Production*, states that the potential for invasion to natural ecosystems is minimal there. While it is not on watch lists in New England, it is perhaps a species to plant in areas where the wind-dispersed seeds are unlikely to establish on their own.



Photos: Form: Virginia Tech; Bark and Leaves: Mollie Freilicher; Fruit: Virginia Tech.

Remembering 9/11 by Celebrating the Tenacity of a Tree That Survived

By Jane L. Levere

September 8, 2014—The National September 11 Memorial and Museum in New York is commemorating the 13th anniversary of the 2001 terrorist attacks with a new video narrated by Whoopi Goldberg, and a Twitter-enabled fundraising campaign. Both were created pro bono by the New York office of BBDO Worldwide, part of the Omnicom Group, and will be introduced on Tuesday. The new film — which is two minutes long and was made under the direction of the BBDO New York creative directors Rick Williams and Marcel Yunes, with animation by Elastic — illustrates [the story of the “survivor tree.”](#)

A callery pear tree planted on Church Street at the World Trade Center was badly burned on Sept. 11, 2001. It was dug out of the rubble six weeks later as a stump with one green leaf. The New York City Parks Department took the tree to Van Cortlandt Park in the Bronx, where it was nursed back to health. It was taken back to the 9/11 Memorial in 2010 and is the only tree there today that is not an oak. Read the full story at [The New York Times](#).

Growing on Trees

DCR Urban and Community Forestry Challenge Grants

Challenge grants are **50-50 matching grants** (75-25 for environmental justice projects) to municipalities and non-profit 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.

For more information on the Challenge Grants (including our NSTAR Go Green grants and National Grid Partnership Grants contact, Julie Coop at 617-626-1468 or julie.coop@state.ma.us or Mollie Freilicher at 413-577-2966 or mollie.freilicher@state.ma.us.

Intent to Apply due October 1. Application due November 1

Upcoming Webcasts

Developing Forest Adaptation Strategies for Northern Forests in an Uncertain Future

Wednesday, October 1, 2014 3:30 p.m. EDT

Anthony D'Amato, Associate Professor, Forest Resources University of Minnesota

Climate change and associated stressors are expected to greatly impact the ability of forest managers to sustainably manage and conserve forest habitats across the northeastern United States. As a result, adaptation strategies are being developed and applied in many regions to minimize climate change impacts and sustain key forest functions under uncertain future environmental conditions. Given that many of these strategies deviate from traditional approaches to forest management, there is a great need for field evaluations of adaptation in practice to inform long-term planning efforts to address climate change impacts. Similarly, the long timeframes over which forests develop and management actions operate has increased the importance of decision support tools, such as forest and landscape-simulation models, to evaluate forest conservation practices under future climate change scenarios. This webinar will highlight the importance of field-based studies for assessing the effectiveness of adaptation strategies at addressing climate change and invasive species impacts and will provide an example of how landscape simulation models are being applied to identify forest conservation priorities for highly vulnerable, spruce-fir ecosystems in the northeastern United States.

Webinar Link:

[Click here to join the webinar - you may join 15 minutes early.](#)

Meeting Number: 24689287. This meeting does not require a password or registration. Participation is on a first come, first served basis.

Or join us LIVE: 134 Morrill Science Center Conference Room, UMass Amherst

We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

DCR Tree Steward Training Register Today!

The 2014 DCR Tree Steward Training will take place Friday, October 24, to Saturday, October 25, at the Harvard Forest in Petersham. At this year's session: learn about tree planting, soils, i-Tree, pruning, tree ID, urban forest pests, tree wardens, and funding urban forestry programs and participate in a roundtable discussion. We'll have a mix of indoor and outdoor sessions. [TST Registration Materials](#) are available online: <http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/branching-out-additional-programs.html>.

Growing on Trees

Urban Forestry Today Webcast Planting Trees in the Urban Environment

October 9, 2014 12:00 pm - 1:00 pm

Urban residents are known to feel passionately about community trees and green spaces. Urban foresters and arborists often find themselves attempting to plant trees in difficult-to-grow areas fraught with stressful elements that include road salt, pest pressures, pollution and lack of available space. Join Dave Lefcourt, Arborist for the City of Cambridge, as he discusses strategies and tips to enable the successful greening of a community – one tree at a time.

To attend, visit www.joinwebinar.com and enter the ID code: #777-787-551. This broadcast is free and will offer the opportunity for arborists to earn 1.0 ISA CEU and 0.5 MCA credit.

For more information, contact:

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Sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the Massachusetts Tree Wardens' & Foresters' Association, University of Massachusetts Extension, and the Massachusetts Department of Conservation and Recreation.

Urban Forest Connections Webinar Series

Upcoming sessions October 8 and November 12

What California Climate Policy Means for Urban Forests

October 8, 2014 | 1:00-2:00 pm ET
Greg McPherson, USDA Forest Service
John Melvin, California Department of Forestry and Fire Protection (CALFIRE)
Chuck Mills, California ReLeaf

Tree Risk Assessment for Municipal Officials

November 12, 2014 | 1:00-2:00 pm ET
Paul Ries, Oregon Department of Forestry
Jerry Mason, Mason and Stricklin, LLC

For more information, go to: <http://www.fs.fed.us/research/urban-webinars/>

Harvard Forest Webcast

Seminars are Fridays at 11:00 a.m. Eastern Time, unless otherwise noted. They are held in the Harvard Forest Seminar Room and also can be joined online via web-streaming.

Seminars are free and open to the public; no pre-registration is required. For more information on these and other sessions, go to: <http://harvardforest.fas.harvard.edu/seminars> or contact Audrey Barker Plotkin ([aabarker\(at\)fas.harvard.edu](mailto:aabarker(at)fas.harvard.edu))

Reclaiming American Cities: The Struggle for Humane Urbanism Since Olmsted

Friday, October 17, 11:00 a.m. - 12:00 p.m. EDT
Rutherford H. Platt, Professor of Geography Emeritus,
University of Massachusetts

[Join seminar online](#)

White-Tailed Deer in Northeastern Forests: Understanding and Assessing Impacts Friday, October 31, 11:00 a.m. - 12:00 p.m. EDT

Tom Rawinski – United States Forest Service

[Join seminar online](#)

Grants

Check out the grant list of the current issue of *Ebb and Flow*, the newsletter of the Division of Ecological Restoration, for some great grant opportunities. Some that may be of interest include the Massachusetts Environmental Trust, the National Environmental Education Foundation (NEEF)'s Every Day Capacity Building Grants, Community Impact Fund of the Nicholas B. Otway Foundation, and the U.S. Forest Service's Community Forest Program (CFP) grants.

There are other grant opportunities and other great information in the newsletter, including some upcoming events related to stormwater. Check it out at: <http://www.mass.gov/eea/docs/dfg/der/newsletters/ebb-and-flow-21.pdf>.

Growing on Trees

The Ginkgo Tree: A talk by Sir Peter Crane

October 7, 2014 7:00 p.m. – 9:00 p.m.

Bowker Auditorium (Stockbridge Hall), UMass-Amherst
100 Holdsworth Way, Amherst, MA

Perhaps the world's most distinctive tree, Ginkgo has remained stubbornly unchanged for more than two hundred million years. A living link to the age of dinosaurs, it survived the great ice ages as a relic in China, but it earned its reprieve when people first found it useful about a thousand years ago. Today Ginkgo is beloved for the elegance of its leaves, prized for its edible nuts, and revered for its longevity. Renowned botanist Peter Crane explores the history of the ginkgo from its mysterious origin through its proliferation, drastic decline, and ultimate resurgence. Crane also highlights the cultural and social significance of the ginkgo: its medicinal and nutritional uses, its power as a source of artistic and religious inspiration, and its importance as one of the world's most popular street trees.

General admission advance: \$10; At the door: \$15. Free to Five College & GCC students.

- See more at: <http://bct.eco.umass.edu/event/the-ginkgo-tree-a-talk-by-sir-peter-crane/#sthash.BEpArore.dpuf>



Trees Benefit People and Places

From the Worcester Tree Initiative

Worcester Tree Initiative decided to have conversations with some of our tree stewards so we could discuss our mutual passions for trees and the great things they do for cities. Margaret Guzman has been a great friend of Worcester Tree Initiative throughout the years. She has received a number of trees from us and all are in excellent condition and she is an advocate for the work that we do. The conversation we had took turns from the beauty of trees to playing outdoors to criminal reform programs. At her home off Pleasant St. Margaret has planted 9 trees that she received from us and there are several more mature trees there as well. It's a gardened landscape of diversity, boasting many beautiful flowering trees such as the Purple Leafed Plum, Kousa Dogwood, and Redbud, among others. She also has a Little Leaf Linden and Blue spruce strategically placed where they can grow large and cast some shade on her house. She cares for her trees very intentionally even having managed to train a lateral branch on her Redbud to take over as the leader (a single branch that grows vertically from which the branches of the canopy grow) when the original leader snapped in a storm. She waters her trees regularly and has laid mulch around them to keep weeds down and lawn-mowers away. It's no wonder they're all doing so well! But the love she gives to her trees is rewarded by the beauty that they bring to her yard and the happiness that they brings her. She loves their graceful appearance, especially the Japanese Tree Lilac she received from us only a couple of years ago which has already shot up to about 12 feet. Read the full story in the [Worcester Tree Initiative](#).

2014 Tree City USA Application Information

The Arbor Day Foundation's [online portal](#) for Tree City USA applications is now accepting applications.

Application instructions will be posted at: <http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/branching-out-additional-programs.html>

Applications are due **December 31, 2014**.

For questions about the application process or to find out how your community can become a Tree City USA, contact Mollie Freilicher, mollie.freilicher@state.ma.us 413-577-2966

Growing on Trees

Courses from the New England Wildflower Society

For course descriptions and more information on these and other courses, go to <http://www.newenglandwild.org/learn/>

Fall Planting of Trees and Shrubs

Saturday, October 4, 10 a.m.-12 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: HOR3006 * **Instructor:** Jen Kettell *
Fee: \$30 (Member) / \$35 (Nonmember)
***Limit:** 16 **CEU:** 2 ISA; ½ MCH; 1 MCLP

Framework Trees of New England

Tuesdays, October 7, 14, 21, 28, 6:30 p.m.-8:30 p.m.; **Saturday, October 18, 12-4 p.m.;** **Saturday, October 25, 9 a.m.-1 p.m. (CORRECTION TO PRINT CATALOG DATE LISTING)**

Location: Garden in the Woods, Framingham, MA, and other sites * **Program Code:** BOT3200 * **Instructor:** Karen Sebastian * **Fee:** \$246 (Member) / \$290 (Nonmember) * **Limit:** 16 * **CEU:** 1 CFE; 1 MCH

Horticultural Techniques

Tuesdays, October 7, 14, 21, 10 a.m.-3 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: HOR3600 * **Instructor:** New England Wild Flower Society Horticulture Staff *
Fee: \$231 (Member) / \$272 (Nonmember) *
Limit: 16 **CEU:** 8 ISA; 1 MCH; 2 MCLP

Native New England Shrubs

THIS COURSE HAS BEEN RESCHEDULED.

New dates are Wednesdays, October 8, 15, 22, from 6:30 p.m.-8:45 p.m. with field sessions on Saturdays, October 11 and 18, 9 a.m.-1:30 p.m.

Location: Garden in the Woods, Framingham, MA, and field sites

Program Code: BOT3300

Instructor: Roland "Boot" Boutwell

Fee: \$238 (Member) / \$280 (Nonmember)

Limit: 15 **CEU:** 1 CFE; 1 MCH

Pruning Fundamentals

Saturday, November 15, 9:30 a.m.-12:30 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: HOR3120 * **Instructor:** David Ropes * **Fee:** \$40 (Member) / \$48 (Nonmember) *
Limit: 16 **CEU:** 3 ISA; ½ MCH; 1 MCLP

Wetland Shrubs in Winter

Note: There is a second, identical WETLAND SHRUBS IN WINTER held on February 4, 2015.

Tuesday, November 18, 10 a.m.-2 p.m. * Location: Garden in the Woods, Framingham, MA
Program Code: WET3020 * **Instructor:** Roland "Boot" Boutwell

Fee: \$53 (Member) / \$64 (Nonmember) *

Limit: 16 **CEU:** 4 ISA; 1 MCH * **Cosponsor:** Massachusetts Association of Conservation Commissions

Understanding Botanical and Horticultural Names: Plant Systematics Module I

Sunday, November 23, 1 p.m.-4 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: BOT2205 * **Instructor:** Judith Sumner * **Fee:** \$46 (Member) / \$54 (Nonmember) *
Limit: 16 **CEU:** 3 ISA; 1 CFE; ½ MCH

Shrubs in Winter

Saturday, December 6, 10 a.m.-2:30 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: BOT3312 * **Instructor:** Roland "Boot" Boutwell * **Fee:** \$60 (Member) / \$72 (Nonmember) * **Limit:** 15 **CEU:** 4 ISA; 1 CFE; 1 MCH

Conservation Biology

Saturdays, January 17, 24, 31, 10 a.m.-3:30 p.m.

Location: Garden in the Woods, Framingham, MA *
Program Code: BOT5100 * **Instructor:** Nancy Eyster-Smith * **Fee:** \$254 (Member) / \$300 (Nonmember) * **Limit:** 16 **CEU:** 1 CFE

Wetland Shrubs In Winter

Note: There is a second, identical WETLAND SHRUBS IN WINTER held on November 18, 2014.

Wednesday, February 4, 10 a.m.-2 p.m. * Location: Garden in the Woods, Framingham, MA
Program Code: WET3021 * **Instructor:** Roland "Boot" Boutwell * **Fee:** \$53 (Member) / \$64 (Nonmember) * **Limit:** 16 **CEU:** 4 ISA; 1 MCH

Growing on Trees

Courses from the Arnold Arboretum

For more detailed course descriptions and for information on these and other courses, go to: <http://my.arboretum.harvard.edu/Info.aspx?EventID=1>

Ecologies in Flux: What is the Role of Exotic Plants in Urban and Suburban Landscapes?

Panelists: [Peter Del Tredici](#), PhD, Senior Research Scientist, Arnold Arboretum of Harvard University; [John Silander](#), Director, Invasive Plant Atlas of New England; [Bryan Connolly](#), PhD, Former State Botanist, Massachusetts Natural Heritage Endangered Species Program and now Assistant Professor, Biology Department, Framingham State University
Moderator: [William \(Ned\) Friedman](#), Director, Arnold Arboretum of Harvard University
1 Session: Tuesday, October 7, 7:00 p.m.–8:30 p.m., Hunnewell Building
Fee Free member, \$10 nonmember

The Origins and Legacy of the Catskill Forest Preserve

[Paul K. Barten](#), Ph.D., Professor and Honors Program Director, Department of Environmental Conservation, University of Massachusetts, Amherst
Thursday, October 16, 7:00 p.m.–8:30 p.m., [Hunnewell Building](#)
Fee \$5 member, \$10 nonmember

Making the Cut: Basic Felling Techniques

[John DelRosso](#), Head Arborist, Arnold Arboretum
Sunday, October 19, 9:00 a.m.–12:30 p.m., [Peters Hill Gate](#)
Fee \$45 member, \$55 nonmember

Propagating Trees and Shrubs from Cuttings and Seeds

[Jack Alexander](#), Plant Propagator, Arnold Arboretum
2 Sessions: Sat Oct 25 and Nov 15 9:00 a.m.–4:00 p.m., [Dana Greenhouse](#)
Fee \$180 member, \$230 nonmember

American Canopy: Trees, Forests, and the Making of a Nation

[Eric Rutkow](#), Doctoral Candidate in History, Yale University and author of the book *American Canopy: Trees, Forests, and the Making of a Nation* (Scribner, 2012)
1 Session: Thursday, November 6, 7:00 p.m.–8:30 p.m., [Hunnewell Building](#)
Fee \$5 member, \$10 nonmember

Protecting the Ash Tree: Wabanaki Diplomacy and Sustainability Science in Maine

[Darren Ranco](#), PhD, Associate Professor of Anthropology and Coordinator of Native American Research, University of Maine
1 Session: Tuesday, November 18, 6:00 p.m.–7:00 p.m., [Geological Lecture Hall](#), 24 Oxford Street, Cambridge
Free and open to the public.

Visit the exhibits in the [Peabody Museum](#) of Archaeology & Ethnology and the [Harvard Museum of Natural History](#), open for special evening hours following the lecture. Free event parking is available at the [52 Oxford Street Garage](#)
Offered in collaboration with the Harvard Museums of Science and Culture

Introduction to Winter Tree Identification

[Kyle Stephens](#), Arborist, Arnold Arboretum
2 Sessions: Saturdays, December 6 and 13 9:00 a.m.–12:30 p.m., [Hunnewell Building](#)
Fee \$75 member, \$100 nonmember

The Bee: A Natural History

[Noah Wilson-Rich](#), PhD, Founder and Chief Scientific Officer, *The Best Bees Company*, and author of the book *The Bee: A Natural History*
1 Session: Tuesday, December 9, 7:00 p.m.–8:30pm, Hunnewell Building
Fee \$5 member, \$10 nonmember

Climate Change and Plant Conservation: Is managed relocation an option?

[Jesse Bellemare](#), PhD, Assistant Professor, Department of Biological Sciences, Smith College
1 Session: Monday, December 15, 7:00 p.m.–8:30pm, [Hunnewell Building](#)
Fee \$5 member, \$10 nonmember

Gleanings

Power Lines Offer Environmental Benefits: UConn Study

September 16, 2014

By: Sheila Foran

Power lines, long considered eyesores or worse, a potential threat to human health, actually serve a vital role in maintaining the health of a significant population, according to new research out of the University of Connecticut. The corridors that crisscross New England's rolling landscape are home to native plant and animal life that require the type of habitat maintained beneath the power lines, according to David Wagner, professor of ecology and evolutionary biology.

Particularly in regions of the Northeast with high human population density, the power lines are vital to the conservation of hundreds of species, as documented in two recent studies by Wagner. One was published this month in the journal *Forest Ecology and Management*, and another is forthcoming in the *Annals of the Entomological Society of America*. "All manner of vertebrate and invertebrate life as well as a wide range of wild flowers and other native plants flourish there," says Wagner.

If the semi-open landscape – areas of grass and weeds, shrubs, and young forest growth – in the transmission corridors was not managed as it is now by power companies, the land would eventually turn into dense forest with heavy cover and limited sunlight, unsuitable for many of those species, Wagner says.

In one study, Wagner and co-authors examined bee species along a transmission line in Southeastern Connecticut over a two-year period. They identified roughly 50 percent of the state's bee species there, including one previously thought to be extinct in the United States, the *Epeoloides pilosula*, which had not been found in this country since 1960.

The landscape is also the ideal habitat for species such as the New England Cottontail rabbit, says Wagner. While the population of its more adaptive cousin, the Eastern Cottontail, has not been impacted by development in the Northeast, the New England Cottontail occupies less than a fifth of the area it once called home.

Birds such as the American woodcock and indigo bunting, reptiles including the wood and box turtles, and many insect species, are also dependent on the open, sunny habitats that are typical of the transmission line corridors.

Wagner's related investigation measured plant diversity and cover along an 89-mile transmission line corridor. Researchers found that the richness of plant life along transmission lines was significantly higher than in the adjacent wooded areas. They documented 326 plant species in power line plots, more than twice the number found in woodland plots. In particular, eight common heath species important to several finicky bee species – those with narrow preferences in pollen sources – were significantly more abundant in power line plots than in the nearby woods.

Other plants more abundant along the power lines included such commonly known flower species as golden-rod, asters, daisies, and sunflowers, as well as a variety of herbs and shrubs that provide much of the late-season pollen and nectar for bees, beetles, moths, and butterflies.

Northeast Utilities, the company that owns and manages approximately 43,000 acres throughout Connecticut, Massachusetts, and New Hampshire, created a land trust in 2012 to promote the preservation of open spaces in New England. NU's manager of transmission vegetation management, Anthony Johnson '80 (CAHNR), says the company works cooperatively with organizations such as the Audubon Society and the New England Wildflower Association, as well as providing support for academic research such as Wagner's. "When I first started this job, I was always looking up – at the trees and the wires – making sure there was nothing to interfere with the power lines," Johnson says. "Now, I also find myself looking down – watching for turtles and snakes and wildflowers and seeing how abundant they are."

Wagner co-authored the paper in *Forest Ecology and Management* with Kenneth Metzler, UConn research specialist; Stacey Leicht-Young of the Arnold Arboretum at Harvard; and Glen Motzkin of The Conway School in Massachusetts. The vegetation sampling was also supported by teams of field botanists in three states: Sarah Treanor Bois and Dan Bruzzese in Connecticut; Matt Hickler, Glenn Motzkin, and Roberta Lombardi in Massachusetts; and Dan Sperduto in New Hampshire. See the article at UConn.edu.

Thank you **Eric Seaborn** for sending this article along!

Gleanings

October is NeighborWoods Month

National NeighborWoods® Month is Alliance for Community Trees' annual campaign to plant and care for community trees during the month of October. Each year, tens of thousands of volunteers take action to make their communities greener and healthier by planting trees—turning their neighborhoods into vibrant, livable NeighborWoods®! Join the celebration and register your event at www.neighborwoodsmonth.org.

ASLA Launches New Guide to Green Infrastructure

09/03/2014 by [The Dirt Contributor](#)

The American Society of Landscape Architects (ASLA) has launched a [new guide](#) to explain the many benefits of “green infrastructure” — designed systems that harness nature to create proven benefits for communities and the environment.

Green infrastructure includes park systems, urban forests, wildlife habitat and corridors, and green roofs and green walls. These infrastructure systems protect communities against flooding or excessive heat, or help to improve air and water quality, which underpin human and environmental health.

The idea that nature is also infrastructure isn't new, but it's now more widely understood to be true, according to Nancy Somerville, Hon. ASLA, executive vice president and CEO of ASLA. Researchers are amassing a body of evidence to prove that green infrastructure actually works: these systems are often more cost-effective than outmoded models of grey infrastructure—a term used for the concrete tunnels created to move water—and also provide far more benefits for both people and the environment.

Read the full story at check out the guide at asla.org.

Minnesota Unveils First-Of-Its-Kind Stormwater Crediting System

August 28, 2014, Minneapolis, MN— The state of Minnesota has developed a first-of-its kind formula and credit system that is transforming the way communities think about trees and stormwater management—potentially helping them to save thousands of dollars by investing in trees rather than pipes.

The credit system is part of a new chapter on trees in the Minnesota Pollution Control Agency stormwater manual, which also provides recommendations on how to ensure that trees thrive and provide the maximum ecological benefits.

“To our knowledge, Minnesota is one of the first states, if not the first, to add a chapter on trees to its manual, as well as to add analysis on the stormwater benefits of tree and soil systems,” said Nathalie Shanstrom, a landscape architect with the Kestrel Design Group who led the efforts to develop the credit system. “While trees have always provided stormwater benefits, they are just recently starting to be recognized by regulators as viable stormwater control measures. Cities, states, and homeowners are taking notice.”

The federal Clean Water Act imposes requirements on

stormwater discharges from specific municipal, construction, and industrial activities. Minnesota is helping communities use trees and other green infrastructure to help address these requirements while mitigating the high cost of installing only pipes.

“The state encourages Low Impact Development (LID) practices where they are appropriate,” stated Mike Trojan of the Minnesota Pollution Control Agency. “Trees are potentially an important LID practice and we want to ensure that the trees provide the maximum level of stormwater benefits.”

The new credit system is part of Minnesota's Minimal Impact Design Standards (MIDS), which focuses on treating rain where it falls to minimize negative impacts from stormwater runoff and to preserve natural resources. The credit is based on a formula that establishes criteria and methods to measure the benefits of evapotranspiration, which is the combination of water evaporating from the soil and transpiration from the plants growing in the soil.

Read the full story and learn more about the new [Minnesota stormwater credit](#).

Source: “[First-of-its-kind stormwater crediting system](#),” *Public Works Magazine*. (Seen in the [AC Trees Newsletter](#))



News

New Findings on Beetle Flight May Help Control Deadly Walnut Tree Disease

Sep 1, 2014 by Pat Bailey

(Phys.org) —New research from entomologists affiliated with the University of California, Davis, shows how environmental conditions influence the seasonal flight behavior of the walnut twig beetle, which spreads a deadly fungal disease in black walnut and other walnut trees. The research may lead to better control of the disease, now found throughout much of the United States. Read the full story at phys.org.

Urbanization is Good for Pests, Bad for Trees

Aug 25, 2014 by Steve Frank

My wife is from a neighborhood outside Baltimore called Lawyers Hill. This is where, in the 18th century, lawyers (and I assume doctors and other gentlemen) had country houses and could escape the summer heat. Lawyer's Hill is only three miles from Baltimore but, based on the gentry's significant investment in houses and land, it must have provided significant relief. So what was (and still is) the difference between Baltimore City and Lawyers Hill? Trees. Read the full story at Phys.org.

Death of Yoda the 650-Year-Old Tree Tells Tale of Southwest Drought

By James Eng and Gil Aegerter

A Douglas fir affectionately named Yoda survived many a drought in its six-plus centuries of existence in a rugged lava flow in the El Malpais National Monument area near Grants, New Mexico, but it couldn't weather the current extreme drought in the parched Southwest. The recent death of the 7-foot-tall tree, estimated to be more than 650 years old, is a testament to the severity of today's drought, scientists say. A core sample obtained in 1991 established that Yoda had lived at least since 1406, but it likely had been alive since 1350 or so, Henri Grissino-Mayer of the University of Tennessee, Knoxville, told NBC News. Yoda had survived a "megadrought" in the 16th century — an intense period of dry weather that plagued Mexico and North America for decades and caused major tree losses. Read the full story at nbcnews.com.

A New Threat of Disease in California Live Oaks

By Bill Pramuk

September 5, 2014—A new threat of disease for live oaks was described in this summer's issue of *Western Arborist* (Western Chapter ISA, Summer 2014). "Foamy canker" is causing a decline of live oaks "throughout urban landscapes in Los Angeles, Orange, Riverside, Santa Barbara, Ventura and Monterey Counties" the article said. Last week, I learned from a local arborist that the disease has just been confirmed in Napa and Marin Counties. Apparently, these are the first confirmations of the disease in Northern California. Read the full story at: The Napa Valley Register.

Exploring a Tree One Cell at a Time

Petersham, MA — Not every scientist would choose to spend a peaceful summer Sunday morning perched on a jittery scaffold 40 feet up a red oak tree, peering through a microscope to jab a leaf with a tiny glass needle filled with oil. But Michael Knoblauch, a plant cell biologist at Washington State University, is in the stretch run of a 20-year quest to prove a longstanding hypothesis about how nutrients are transported in plants. He is also running out of time: He's nearing the end of a sabbatical year, much of which he has spent here at Harvard Forest, a 3,500-acre research plot in central Massachusetts. Read the full story and watch a short video at The New York Times.

Local Aficionados Building a Market for 'Urban Wood'

By Joe Taschler

Town of Addison, WI — If a tree falls in the city, it definitely makes a sound — usually the sound of a chipper grinding it into splinters and sawdust. Dwayne Sperber is leading an effort to change that. He and a collection of folks including a sawmill operator and an architect are working to develop new markets for lumber that comes from "urban wood," the trees that grow in cities and suburbs. Sperber is a furniture maker and urban wood advocate. "In communities across the nation, trees from streets, homes, parks, and other public and private lands are removed due to mortality from a variety of causes: disease, storm damage, street improvements, development clearing, and insects — like the emerald ash borer," Sperber said in an email. "Most cities and tree care professionals consider these trees a waste and a disposal problem." Read the full story at The Milwaukee Journal Sentinel.

On the Horizon

October NeighborWoods Month

- Oct 1** **Deadline for Intent to Apply:**
[Urban and Community Forestry Challenge Grants](#)
- Oct 2** PDS Chainsaw Safety, Mass. Tree Wardens' and Foresters' Assoc., www.masstreewardens.org
- Oct 3** Massachusetts Certified Arborist Exam, www.massarbor.org
- Oct 5** Community Forest Outreach Event, Weston, MA, www.landssake.org
- Oct 6-7** Level I Precision Tree Felling, Chainsaw Safety and Handling, ArborMaster, Mansfield, CT, www.arbormaster.com
- Oct 8-9** Level I Arborist Rigging Applications, ArborMaster, Mansfield, CT, www.arbormaster.com
- Oct 10** Registration deadline for [DCR Tree Steward Training](#)
- Oct 16** Chipper Operator Workshop, Morbark, North Oxford, MA, www.tcia.org
- Oct 18** NEC-ISA Master's Challenge Championship, UMass Amherst, www.newenglandisa.org
- Oct 20-21** **New dates!** Level I Precision Tree Felling, Chainsaw Safety & Handling, ArborMaster, Attleboro, MA, area www.arbormaster.com

- Oct 22-24** **New dates!** Level I Tree Climbing Methods, Work Positioning & Best Practice, ArborMaster, Attleboro, MA, area www.arbormaster.com
- Oct 21** MA Arborist Association Safety Saves, Wellesley, www.massarbor.org
- Oct 21** MA Arborist Association Dinner Meeting, Framingham, www.massarbor.org
- Oct 24-25** [DCR Tree Steward Training](#), Petersham, MA
- Nov 1** **Deadline: DCR Urban and Community Forestry Challenge Grants**
- Nov 11-12** Certified Tree Care Safety Professional Workshop, Tree Care Industry Association, Hartford, CT, www.tcia.org
- Nov 13-15** TCI Expo 2014, Tree Care Industry Association, Hartford, CT, www.tcia.org
- Nov 18** MA Arborist Association Safety Saves, Wellesley, www.massarbor.org
- Nov 18** MA Arborist Association Dinner Meeting, Framingham, www.massarbor.org
- Jan 13-14** MTWFA Annual Conference, Sturbridge, MA www.masstreewardens.org

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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.

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.), please contact [Mollie Freilicher](#) or click [here](#).

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