

RICHARD W. HARPER

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Website(s):

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www.urbanforestrytoday.org

Degrees:

PhD Forest Resources/Arboriculture	University of Massachusetts	2019
MS Entomology	University of Nebraska	2005
BES Forest Conservation/Management	Lakehead University	2001

Employment:

2012 – Present	Extension Assistant /Associate (2018) Professor of Urban & Community Forestry, Department of Environmental Conservation, University of Massachusetts Amherst
2001 – 2012	Horticulture/IPM Specialist, Horticulture Division, Cornell University Cooperative Extension of Westchester County
1998 – 1999	IPM Scout/Arborist, SavATree, Westchester County, NY

RESEARCH

Areas of Specialization:

Human Ecology and Urban Natural Resources; Host Plant Resistance; Urban Tree Performance

Program Description (current):

My current position is comprised of a 20% research – 20% teaching – 60% service/outreach appointment. It involves initiating & expanding a broad-based integrated research & extension program in support of the management of municipal forests & urban landscapes. I administer the '[Urban Forestry Today](#)' monthly webcasts, designed to meet real-time educational needs of practitioners and closely align outreach-programming efforts with cooperating associations & agencies. I administer 4 integrated research/extension projects and regularly contribute to both scientific journals and publications with professional and popular readership.

Student Research Projects (current):

Hargrave, J.R.	<i>Municipal forest programming, management & agency support.</i>	Ph.D.
Copeland, C.A.	<i>UAS (drones) and Dutch elm disease monitoring-detection.</i>	Ph.D.
Powning, C.	<i>Residents' response to urban tree canopy restoration in Springfield.</i>	M.S.

Support (select from \$619, 362):

2022-2023	Harper (PI)	USDA, State & Private Forestry Coop Agrmnt	\$100,000
2020-2021	Harper (PI)	USDA, McIntire Stennis Funds	\$40,000
2019-2020	Harper (PI)	USDA, McIntire Stennis Funds	\$36,000
2018-2019	Harper (PI)	USDA, McIntire Stennis Funds	\$45,000
2018-2019	Harper (PI)	Dep't of Env. Cons. summer fund (competitive)	\$3,500
2017-2018	Harper (PI)	USDA, McIntire Stennis Funds	\$34,000
2016-2017	Harper (PI)	USDA, McIntire Stennis Funds	\$19,900
2014-2015	Harper (Donation Recipient)	Town of Amherst	\$23,560
2014-2015	Harper (Donation Recipient)	University of New Hampshire	\$10,000

UMass Extension (Competitive) Summer Scholar Program \$22,500 (2014-Present);

MA Department of Conservation and Recreation Cooperative Agreement \$130,000 (2016 – 2019).

Research Publications (select from 25+):

- Elton, A.J., **R.W. Harper**, L.F. Bullard, E. Griffith and B.S. Weil. 2022. Volunteer engagement in urban forestry in the United States: A review of the literature. *Arboricultural Journal* (1-23).
- Coleman, A.F., R.L. Ryan, T.S. Eisenman, D.H. Locke and **R.W. Harper**. 2021. The influence of street trees on pedestrian perceptions of safety: Results from environmental justice areas of Massachusetts, U.S. *Urban Forestry & Urban Greening* 64: 1-11.
- Bocsi, T., **R.W. Harper**, P.S. Warren, and S. DeStefano. 2021. Exploring the ecology of establishing oak trees in urban settings of the Northeast. *Cities & the Environment* 14(1): 1-20.
- Eisenman, T.S., T. Flanders, **R.W. Harper**, R.J. Hauer and K. Lieberknecht. 2021. Traits of a bloom: A nationwide survey of U.S. urban tree planting initiatives (TPIs). *Urban Forestry & Urban Greening* 61: 1-15.
- Mei, P., V. Malik, **R.W. Harper** and J.M. Jiménez. 2021. Air pollution, human health and the benefits of trees: A biomolecular and physiologic perspective. *Arboricultural Journal* 43: 1-22.
- Harper, R.W.**, E.S. Huff, D.V. Bloniarz, S. DeStefano, et al. 2020. Employing qualitative research interviews to understand urban forestry stakeholder continuing education needs. *Arboricultural Journal* 42: 1-11.
- Harper, R.W.**, E.S. Huff, D.V. Bloniarz, et al. 2018. Exploring the characteristics of successful volunteer-led urban forest tree committees in Mass. *Urban Forestry & Urban Greening* 34: 311-317.
- Bocsi, T.J., P.S. Warren, **R.W. Harper** and S. DeStefano. 2018. Wildlife Habitat Management on College and University Campuses. *Cities & the Environment* 11: 1-14.
- Harper, R.W.**, D.V. Bloniarz, et al. 2017. Urban forest management in New England: Towards a contemporary understanding of tree wardens in Massachusetts communities. *Arboricultural Journal* 41: 1-19.
- Scharenbroch, B.C., D. Carter, M. Bialecki, R. Fahey, L. Scheberl, M. Catania, L.A. Roman, N.L. Bassuk, **R.W. Harper**, et al. 2017. A rapid urban site index for assessing the quality of street tree planting sites. *Urban Forestry & Urban Greening* 27: 279-286.
- Yin, J., **R.W. Harper** and N.L. Bassuk. 2017. Effects of tree production method and transplanting on root hydraulic conductance. *Journal of Environmental Horticulture* 35: 79-83.
- Allen, K.S., **R.W. Harper**, A. Bayer and N.J. Brazee. 2017. Nursery production systems and their impact on urban tree survival. *Urban Forestry & Urban Greening* 21: 183-191.
- Green, B.L., **R.W. Harper** and D.A. Lass. 2015. Differing nursery production systems impact cost of planting oak species in the urban environment. *HortTechnology* 25: 651-656.
- Clapp, J.C., H.D.P. Ryan III, **R.W. Harper** and D.V. Bloniarz. 2014. Rationale for the increased use of conifers as functional green infrastructure. *Arboricultural Journal* 36: 161-178.
- Harper, R.W.** and R.S. Cowles. 2013. Susceptibility of Chinese hemlock (*Tsuga chinensis*) to injury from horticultural oil applications. *Arboriculture & Urban Forestry* 39(1): 6-10.

Outreach Publications (select from 100+):

- Harper, R.W.**, K. Bezanson and D. Bloniarz. 2021. Student-led urban tree inventories in Massachusetts: Strengthening our understanding, one tree at a time. *Arborist News* 31(4): 34-37.
- Harper, R.W.**, N.J. Brazee, C.A. Copeland and T.M. McElhinney. 2020. Researchers & students collaborate to restore *Ulmus americana* in the Northeast. *Arborist News* 29(1): 28-30.
- Harper, R.W.** and D.V. Bloniarz. 2018. Regreening Springfield, MA – and communities nationwide – one tree at a time. *Arborist News* 27(1): 22-25.
- Harper, R.W.** and D.V. Bloniarz. 2017. Income, equity and the urban forest: Strengthening student understanding in Springfield, MA. *Arborist News* 26(3): 26-28.
- Clapp, J.C. and **R.W. Harper**. 2015. The value and function of evergreen conifers as urban green infrastructure. *Arborist News* 24(2): 42-45.
- McElhinney, A.M. and **R.W. Harper**. 2015. Growing into agriculture: A UMass environmental science student gets out of her comfort zone to learn about work in the nursery industry. *American Nurseryman* 111: 20-21.
- Harper R.W.** and J.L. Gangloff-Kaufmann. 2014. Arborists and stinging insects in the urban landscape. *Arborist News* 23(4): 44-47. [part II 23(5): 28-31]
- Bradley, B.A. and **R.W. Harper**. 2014. Can community forests keep pace with a changing climate? *Arborist News* 23(3): 44-47.
- Harper, R.W.** 2013. Urban forestry on the frontier. *City Trees* 49: 10-18.

TEACHING

UMass Teaching & Evaluations (since 2013):

Course	Name	Frequency Taught	Composite SRTI Score*
NRC 382	Human Dimensions of Natural Resources	2020-present	4.2
NRC 340	Plant Health Care	2013-2017	4.6
NRC 310	Community Forestry	2016-present	4.6
NRC 492A	Verbal Communication	2013-2015	4.1

**Average of student response to instruction global questions #10, #11, & #12 from evaluations, producing a composite evaluation /5.*

SERVICE/OUTREACH

Extension Program Coordination (select from 100+):

Urban Forestry Today noonhour (Eastern) webcasts. Monthly since June 2014. (Global audience ~ 800 individuals)

Annual Conference. International Society of Arboriculture – New England Chapter. Springfield, MA. October 2019. (300 attendees)

Emerald Ash Borer Response. UMass Extension. Easthampton, MA. 11 Sept 2018. (65 attendees)

Urban Tree Planting. Mass Tree Wardens' Assoc. Professional Development Series. Northampton, MA. 02 Oct 2018. (15 attendees)

Western Chapter Meetings of the Mass Tree Wardens Assoc. Northampton, MA. Spring, Summer, Fall (3x annually since 2017; 40 attendees ea.).

Community Tree Planting. Springfield, MA. Spring + Fall. (2013-2019; 50 attendees ea.)

Hands-on Landscape IPM Walkabout. UMass Extension. April. (2013-2018; 30 attendees ea.)

Bucket Truck Safety. Mass Tree Wardens Assoc. Professional Development Series. Amherst, MA. 22 Jul 2014. (40 attendees)

UMass Summer Pre-College. UMass Dep't of Environmental Conservation. July. (2014-2016; ~5 attendees ea.)

Fall River 2013 Urban Forestry Program. UMass Urban Forestry Extension Program and The Davey Tree Expert Company. Fall River, MA. 22 Apr 2013. (30 attendees)

Annual Conference. Mass Tree Wardens Assoc. Sturbridge, MA. January. (2012-2018; 300 attendees ea.)

Annual Spring UMass Urban Forestry Conference. UMass Extension. Amherst, MA. March. (2012-2018; 200 attendees ea.)

Extension Lectures (select from 100+):

Tree Protection in the Urban Environment. ISA Ontario Chapter Annual Conference. 24 Feb 2021. Ontario, Canada. (130 attendees)

Benefits of urban trees. Urban Forest Resilience Conference. Univ of D.C. Washington, D.C. 10 Mar 2020. (100 attendees)

Lightning talk. Seminar Series, Department of Environmental Conservation, Univ of MA. Amherst MA. 14 Sept 2018. (80 attendees)

Tree planting research update. Seminar Series, Arnold Arboretum of Harvard University. Jamaica Plain, MA. 17 Sept 2018. (50 attendees)

Urban tree health evaluation. Worcester Tree Initiative. Worcester, MA. October. (annually since 2017; 20 attendees ea.)

Nursery production systems and urban tree planting. New England Grows. Boston, MA. 30 Nov 2016. (682 attendees)

Urban tree planting research and practice update. Society of Municipal Arborists Annual International Conference. Indianapolis, IN. 14 Nov 2016. (110 attendees)

New perspectives and research regarding the tradition of tree installation. Canadian Urban Forestry Conference Biennial National Conference. Laval, QC. 28 Sept 2016. (150 attendees)

Abiotic disorders of ornamental plants. University of Rhode Island Master Gardener Continuing Education. Kingston, RI. 19 Mar 2015. (40 attendees)

Urban forests and impervious cover change. International Society of Arboriculture – New England Chapter Annual Conference. Burlington, VT. 23 Sept 2014. (200 attendees)

Tree biology. ReGreen Springfield ‘Tree Tenders’ Training. Springfield, MA. Jan 23, 2014. (45 attendees)

Pest-resistance and urban trees. Long Island Horticulture Research and Extension Center, Cornell University. Riverhead, NY. 11 Jul 2013. (130 attendees)

Urban tree ecology. Green School. UMass Extension. Milford, MA. November – December. (bi-annually since 2012; 60 attendees ea.)

An update on urban tree planting. MA DCR Annual Tree Steward Training. Harvard Forest, Petersham, MA. October. (annually since 2012; 20 attendees)

Administrative Service/Leadership:

1. Extension Administrative Detail. Center for Ag., Food & the Envmt (UMass Extension) (2021-Present).
2. Search Committee Member. Agriculture Program Director, UMass Extension (2019).
3. Search Committee Chair. Urban Forestry/Arboriculture Lecturer, Dep’t of Environ Conservation (2018).
4. Interim Coordinator. Arbor/Comm Forestry Program, Stockbridge School of Agriculture (Jan – Aug 2018).
5. Diversity & Workplace Climate Committee. Center for Ag. Food & the Env (UMass Extension) (2017).

Association Service/Leadership (current):

1. International Society of Arboriculture – New England Chapter State Rep & Past President (Present)
2. USDA Forest Service – Urban Forest Strike Team Advisory Board (since 2013)
3. ReGreen Springfield – Board of Directors (since 2013)
4. Massachusetts Tree Wardens Association – Board of Directors (since 2013)

PREVIOUS EMPLOYMENT

Horticulture/IPM Specialist, Cornell University Coop. Extension of Westchester County (2001-2012):

With a 100% outreach appointment, this position involved providing coordination and resourcing of commercial horticulture/agriculture programming and applied research activities in service of green industry professionals. Key programs included the development of an annual, multi-day training for tree care workers desiring to take the International Society of Arboriculture Certified Arborist examination, and professionals desiring to become licensed NYS Pesticide Applicators. I performed in-field consultations, pest diagnosis, and soil analysis for commercial operators and residents.

Integrated Pest Management Scout/Arborist, SavATree, Westchester County, NY (1998-1999):

I worked primarily on the properties of high-end clientele performing applied pest prevention and management strategies to diagnose and treat disease and insect pests of ornamental trees and shrubs. This included the application of pesticides, fertilizers, and biostimulants. I relayed horticulture and landscape information to clientele and operated specialized arboriculture equipment including chainsaws, chippers, and vertical mulchers. I also trained and supervised new employees.

Certifications

Licensed Arborist – State of CT (S-5358)
Board Certified Master Arborist – International Society of Arboriculture (NY-0627B)

Awards

2021 Honourary Member – Ontario Arborist’s Association
2020 Public Education Award – Tree Canada
2019 Early Career Scientist Award – International Society of Arboriculture
2017 Honor Award (shared) – USDA Forest Service
2015 Sharon J. Lilly Award of Achievement – International Society of Arboriculture
2014 President’s Award – Massachusetts Tree Wardens Association
2012 Distinguished Educator Award (shared) – NYS Arborists Association