

**Gregory Ames Dahle, Ph.D., BCMA, QTRA**  
Associate Professor of Arboriculture & Urban Forestry  
West Virginia University  
Davis College, Division of Forestry & Natural Resources  
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<http://trees.wvu.edu/>

### **ACADEMIC EXPERIENCE**

West Virginia University, Division of Forestry & Natural Resources  
Associate Professor of Arboriculture, August 2017 - present  
Program Coordinator Sustainable Forestry & Biomaterials August 2017 – June 2022  
Assistant Professor of Arboriculture, August 2011 – August 2017

Rutgers University, Urban and Community Forestry Program  
Visiting Scholar, January 2011 – December 2011  
Part Time Lecturer, January 2010 – May 2010

### **ACADEMIC DEGREES**

Ph.D. 2009. Rutgers, The State University of New Jersey, New Brunswick, NJ. Department of Ecology, Evolution & Natural Resources. Major Ecology & Evolution  
M.S. 2004. Purdue University, West Lafayette IN. Department of Forestry & Natural Resources. Major: Forestry & Natural Resources  
B.S.F. 1995. Purdue University, West Lafayette, IN. Department of Forestry & Natural Resources. Major: Wildlife Management

### **CERTIFICATIONS/QUALIFICATIONS**

ISA Board Certified Master Arborist #WE-5192B  
ISA Qualified Tree Risk Assessor  
ISA TRAQ Trainer

### **TEACHING EXPERIENCE**

West Virginia University, Division of Forestry & Natural Resources (FMAN, FOR, WDSC became FNRS in Fall 2022)

FOR 206 Winter Dendrology	FNRS 423 Urban Forest Management
FOR 310 Elements of Silviculture	FNRS 434 Forest Management & Planning
FMAN 433 Forest Management	FNRS 491 Professional Field Experience
FMAN 593 Research in Arboriculture	FNRS 495 Independent Study
FMAN 796 Graduate Seminar	FNRS 523 Advanced Urban Forest Mngt
FNRS 315 Survey of Arboriculture	FNRS 100 Forest Resources in US History
FNRS 355/FMAN 320 Arboriculture & Urban Trees	WDSC 491 Professional Field Experience
FNRS 400 Forest Resource Management Field Practicum	

Rutgers University, Department of Ecology, Evolution & Natural Resources  
Course Instructor – Urban Forestry 11:704:403, Spring 2010  
Course Instructor – Arboriculture 11:704:365, Fall 2007  
Teaching Assistant – Urban Forestry 11:704:403, Spring 2006 and Fall 2004  
Teaching Assistant – Arboriculture 11:704:365, Spring 2005

Rutgers University, Division of Life Sciences

Teaching Assistant – General Biology Laboratory 01:119:102, Spring 2007

Teaching Assistant – General Biology Laboratory 01:119:101, Fall 2006

Purdue University, Department of Forestry & Natural Resources

Teaching Assistant – Urban Forest Topics FNR 498U, Spring 2003 and 2004

Teaching Assistant – Arboriculture Practices FNR 444, Fall 2001, 2002 and 2003

Teaching Assistant – Wildlife Habitat Management FNR 341, Spring 2002 and 2003

### **INDIVIDUAL COURSE LECTURES**

Urban Tree Management Plans. FMAN 433 – Forest Management. Fall 2019 – 2022.

Incorporating Urban Trees into Ag Education. AGEE493 – Using STEM in Ag Education. Fall 2019

Restoring Trees after Topping. ENTO/PPTH 471 Urban Tree Shrub Health. Spring 2015, 2019

The Betulaceae Family. FOR 205 – Dendrology. Fall 2018

Remote Measurement of Mechanical Strain. WDSC 480 – Senior Project 1. Fall 2018

Wood Organization. Visiting Professor in FNR 444. Purdue University, West Lafayette IN. October 2017

Incorporating Urban Trees into Ag Education. AGEE493c – Using STEM in Ag Education. Spring 2017

Remote Measurement of Mechanical Strain. WDSC 480 – Senior Project 1. Fall 2016

Restoring Trees after Topping. ENTO/PPTH 471 Urban Tree Shrub Health. Spring 2015, 2017

Bush Honeysuckles & Ulmaceae. FOR 205 – Dendrology. Fall 2015

What is Urban Forest Management. FOR 140 – WV Natural Resources. Fall 2015

Remote Measurement of Mechanical Strain. WDSC 480 – Senior Project 1. Fall 2015

Overview Urban Forestry Minor. FOR 101 – Career in Natural Resource Management. Fall 2015

Remote Measurement of Mechanical Strain. WDSC 480 – Senior Project 1. Fall 2014

Aceraceae & Oleaceae. FOR 205 – Dendrology. Fall 2014

Urban Forestry. HORT 493C – Pruning – Training Horticulture Plants. Feb. 2014

Wood Organization & Arboriculture. WDSC 494 – Wood Science Seminar. Sept. 2013

Wood Organization & Arboriculture. WDSC 494 – Wood Science Seminar. Sept. 2012

Urban Forest Management. West Virginia University FMAN 433 – Forest Management. Fall 2011

West Virginia University Arboriculture and Urban Forestry. West Virginia University RPTP 142 – Introduction: Recreation/Parks/Tourism Fall 2011

Arboriculture & Urban Forestry at West Virginia University. West Virginia University RPTP 365 – Management-Recreation/Park/Tourism. Fall 2011

Betulaceae through Salicaceae, important hardwood tree families in the Northeast. Rutgers University, 11:704:272 – Dendrology, Fall 2005

Wind, Air and Trees – How trees effect air and noise pollution. Rutgers University, 11:372:202 – Environmental Issues, Spring 2005

Wood organization, Rutgers University, 11:704:365 – Arboriculture, Fall 2005

The transplanting process – more than digging a hole in the ground, Rutgers University, 11:704:365 – Arboriculture, Fall 2005

Overview of integrated vegetation management. Rutgers University, 11:704:403 – Urban Forestry, Fall 2004

Urban forest planning models, Purdue University, FNR 498U – Urban Forestry Topics, Spring 2004

Urban forestry administration, Purdue University, FNR 498U – Urban Forestry Topics, Spring 2004

Management plans – how to develop a long-term client, Purdue University, FNR 498U – Urban Forestry Topics, Spring 2003

Animal – Habitat Relationships, Purdue University, FNR 341 – Wildlife Habitat Management, Spring 2003

Overview of tree management plans, Purdue University, FNR 444 – Arboriculture, Fall 2002

### **EDITORIAL POSITIONS**

Associate Editor for Urban Forestry & Urban Greening 2015 – present

Guest Editor for Forests Special Edition: How urban trees grow and survive under environment changes. 2021 – 2022

### **GRANT APPLICATION REVIEW PANELS**

TREE Fund Duling Grant 2022

### **PROFESSIONAL EXPERIENCE**

New Jersey Division of Parks & Forestry, Liberty State Park. Field Technician, 2004 – 2005

Bartlett Tree Research Laboratories, Charlotte, NC, Arboricultural Researcher 2004

TruGreen-LandCare, San Jose, CA Arboricultural Sales Manager, June 1999 – April 2001

Davey Resource Group, Livermore, California, Project Coordinator 1998 – 1999

Davey Resource Group, Livermore California, Utility Arborist 1995-1998

### **GRADUATE STUDENTS – Current**

Musick, Cindy. Doctoral student (Advisor)

Taylor, Austin. Master of Science in Forestry student (Advisor)

Mikesell, Zane. Master of Science in Forestry student (Co-advisor)

### **GRADUATE STUDENTS – Completed**

Walker, Matthew. MSF. December 2020. Assessment of Unmanned Aerial Systems and lidar for the Utility Vegetation Management of Electrical Distribution Rights-of-Ways.

Quinterno, Matthew. MSF. August 2018, Thesis: Imidacloprid Bark Treatment for Hemlock Woolly Adelgid (*Adelges tsugae*).

Eckenrode IV, Robert. T. MSF. May 2017, Examining Strain Propagation in the Lateral and Codominant Branch Attachment Using Digital Image Correlation.

Beezley, Kenneth Edward. MSF. May 2016, Determination of Strain Patterns Across the Root-Stem Transition Zone in Trees.

Benjamin, Andrew. MSF. May 2016, Thesis: Perceptions of Urban Forestry Employers

Carpenter, Aaron Dwight. MSF. May 2014, Thesis: Flexure Modulus of Elasticity in Living Branch Wood.

### **AWARDS and HONORS**

Distinguished Alumnus Award, Purdue University Department of Forestry & Natural Resources. 2019 - inaugural awardee

Outstanding Faculty for Service WVU Division of Forestry & Natural Resources 2019, 2021

Outstanding Educator Award, WVU Society of American Forester, April 2017

Gold Leaf Award, Mid-Atlantic Chapter International Society of Arboriculture, Oct 2016

Early-Career Scientist Award. International Society of Arboriculture Aug 2015

First place award in AREA Student Oral Competition, International Society of Arboriculture, 2008

Third place award for Research Paper, The American Society of Horticultural Science  
Northeastern Region, 2008  
Excellence in Arboriculture Research Award, New Jersey Arborist Chapter ISA, 2005  
AREA Student Paper Travel Award, International Society of Arboriculture, 2004  
William A. Rafferty Leadership Award, Purdue University, 1995  
First place, Student Publication Contest, Society of American Foresters, The Log - Purdue  
University Department of Forestry and Natural Resources Yearbook, 1994

**GRANTS and FELLOWSHIPS**

WV Division of Forestry, Demonstration City Grant, 2022, \$25,641  
Utility Arborist Research Fund Grant, TREE Fund, 2022. \$49,572  
McIntire-Stennis Research Grant, 2021, \$140,000  
Utility Arborist Research Fund Grant, TREE Fund, 2020. \$45,000  
Utility Arborist Research Fund Grant, TREE Fund, 2019. \$49,730  
WV Division of Forestry, Demonstration City Grant, 2018, \$17,925  
WV Energy Institute O'Brien Energy Research Fund, 2018, \$30,098  
WV Division of Forestry, Demonstration City Grant, 2016, \$4,198  
McIntire-Stennis Research Grant, 2016, \$251,473  
John Z Duling Grant, TREE Fund, 2015, \$10,000  
USDA Forest Service – Urban Forestry Diversity Grant, 2014, \$20,000  
National Urban & Community Forestry Advisory Council, 2013, \$256,000  
NERA Planning Grant (NE1304), 2012, \$6,000  
Start-up Funds, West Virginia University \$75,000  
McIntire-Stennis Research Grant, 2012, \$252,473  
International Society of Arboriculture Literature Review: Tree Biomechanics, 2010; \$25,000  
John & Eleanor Kuser Endowed Faculty Scholar Graduate Research Fellowship, 2007-2009  
John Z. Duling Grant. Tree Research and Education Endowment Fund, 2005; \$6,931  
Division of Life Sciences Teaching Assistantship, Rutgers University, 2006-2007  
McIntire-Stennis Graduate Research Assistantship, Rutgers University, 2004-2006  
Department of Forestry & Natural Resources Teaching Assistantship, Purdue University, 2001-  
2004

**PROFESSIONAL WORKSHOPS and SHORT COURSES**

Tree Risk Assessment Qualification Renewal Course, Instructor 2023 – current  
Arborist Certification Preparation Course. MAC-ISA. Co-instructor. 2020 – current  
Advanced Hazard Tree Evaluation. Short Course Webinar, for Environmental Consultants, Inc.  
Employees, 2011, 2012, 2014, 2016

**PEER-REVIEWED PUBLICATIONS**

1. **Dahle GA**, RT Eckenrode, ET Smiley, D DeVallance, I Hálasková. 2022. Can mechanical strain and aspect ratio be used to determine codominance in in red maple unions without included bark? *Forests* 13, 1007. 13 pp. <https://doi.org/10.3390/f13071007>
2. Eckenrode RT, **GA Dahle**, ET Smiley, D DeVallance, I. Cynk-Dahle, M. Walker. 2022. Examining strain propagation in the lateral branch attachment of white oak (*Quercus alba* L.) and chestnut oak (*Quercus prinus* L.). *Urban Forestry & Urban Greening* 73: 1-7. 127591. <https://doi.org/10.1016/j.ufug.2022.127591>
3. Walker M, **GA Dahle**. 2022. Likelihood of failure of trees along electrical utility rights-of-ways: a literature review. *Arboriculture & Urban Forestry* 48:242–257. <https://doi.org/10.48044/jauf.2022.018>
4. Haung, X, H, S Liu, Y You, J Wang, Y Wen, W Shen, X Tan, **G Dahle**. 2021. Introduction of N2-fixing trees in Eucalyptus plantations reduces soil carbon loss through shifts in microbial communities and enzyme activities. *Agricultural and Forest Meteorology* 208-309 <https://doi.org/10.1016/j.agrformet.2021.108536>
5. Rathjen, R. D. Sydnor, J. Grabosky, **GA Dahle**. 2021. Structural Pruning in Callery Pear Does Not Change Apparent Branch Union Strength in 7th Year Static Load Field Testing. *Arboriculture & Urban Forestry* 47:123-130. <https://doi.org/10.48044/jauf.2021.013>
6. Beezley, KE, **GA Dahle**, J Miesbauer, D DeVallance. 2020. Determination of Strain Patterns Across the Root-Stem Transition Zone in Urban Trees. *Arboriculture & Urban Forestry* 46:321–332. <https://doi.org/10.48044/jauf.2020.023>
7. Hao, J, X Wu, G Oporto, J Wang, **G Dahle**. 2020. Compression Properties and Its Prediction of Wood-Based Sandwich Panels with a Novel Taiji Honeycomb Core. *Forests* 11: 886: <http://doi:10.3390/f11080886>
8. **Dahle, GA**. A Benjamin, D McGill. 2020. Importance-performance analysis of skills needed in entry level urban foresters. *Urban Forestry & Urban Greening* <doi.org/10.1016/j.ufug.2020.126694>
9. Fang F, B McNeil, T Warner, A Maxwell. **G Dahle**, E Eutsler, J Li. 2020. Discriminating tree species at different taxonomic levels using multi-temporal WorldView-3 imagery in Washington D.C., USA. *Remote Sensing of Environment* 246: <https://doi.org/10.1016/j.rse.2020.111811>
10. Fang F, B McNeil, T Warner, **G Dahle**, E Eutsler. 2020. Street tree health from space? An evaluation using WorldView-3 data and the Washington D.C. Street Tree Spatial Database. *Urban Forestry & Urban Greening* 49: <https://doi.org/10.1016/j.ufug.2020.126634>
11. Persad, A, O Rocha, **GA Dahle**, J Grabosky, D DeVallance. 2019. Optical, Acoustical and Fine Root Analyses of Emerald Ash Borer Infested Ash Trees. *Arboriculture & Urban Forestry* 45:211-220.
12. Hao, J, X Wu, G Oporto, J Wang, **G Dahle**, N Nan. 2018. Deformation and Failure Behavior of Wooden Sandwich Composites with Taiji Honeycomb Core under a Three-Point Bending Test. *Materials* 11, 2325; doi:10.3390/ma11112325
13. Atta-Obeng, E. B. Dawson-Andoh, E. Felton, **G. Dahle**. 2018. Carbon Dioxide Capture Using Amine Functionalized Hydrothermal Carbons from Technical Lignin. *Waste and Biomass Valorization* DOI.10.1007/s12649-018-0281-2
14. James KR, JR Moore, D Slater, **GA Dahle**. 2017. Tree Biomechanics Review. *CAB Reviews* 12:38: 1-11.
15. **Dahle, GA**. 2017. Influence of Bark on the Measurement of Mechanical Strain using Digital Image Correlation. *Wood Science & Technology* 51:1469-1477
16. **Dahle, GA**, KR James, B Kane, J Grabosky, A Detter. 2017. A Review of Factors That Affect the Load-Bearing Capacity of Urban Trees. *Arboriculture & Urban Forestry* 43:89-106

17. Manzo, J, **GA Dahle**, R Hannah. 2017. Assessing the effect of tree canopy stocking on home energy use savings during peak cooling months in West Virginia USA. *International Journal of Horticulture and Floriculture* 5:295-300
18. **Dahle, GA**, A. Carpenter, D. DeVallance. 2017. Does Modulus of Elasticity vary due to Dormancy and Temperature? *Arboriculture & Urban Forestry* 43:49–54
19. **Dahle, GA**, A. Carpenter, D. DeVallance. 2016. Non-destructive Measurement of the Flexural Modulus of Elasticity of Wood Using Acoustical Stress Waves. *Arboriculture & Urban Forestry* 42:227-233
20. **Dahle, G**, J Grabosky, B Kane, J Miesbauer, W Peterson, F Telewski, A Koeser, G Watson. 2014. Tree Biomechanics: A White Paper from the 2010 International Meeting and Research Summit at the Morton Arboretum (Lisle, IL, US). *Arboriculture & Urban Forestry* 40:309-318
21. **Dahle, GA** and JC Grabosky. 2014. Variation in anatomical features along *Acer platanoides* (Aceraceae) branches. *International Journal of Horticulture and Floriculture* 2:130-136
22. **Dahle, GA**, FJ Gallagher, D Gershenson, K VR Schäfer and JC Grabosky. 2014. Allometric and Mass Relationships of *Betula populifolia* in a Naturally Assembled Urban Brownfield: Implications for Carbon Modeling. *Urban Ecosystems DOI 10.1007/s11252-014-0377-9*
23. James, K, **GA Dahle**, J Grabosky, B Kane, A Detter. 2014. Tree Biomechanics Literature Review: Dynamics. *Arboriculture & Urban Forestry* 40:1-15
24. **Dahle, GA** and J Grabosky. 2012. Determining if Lateral Imbalance Exists in First Order Branches Leads to a Potential Development of Torsional Stress. *Arboriculture & Urban Forestry* 38: 141-145
25. Grabosky, JC, ET Smiley and **GA Dahle**. 2011. Research Note: Observed Symmetry and Force of *Plantanus x acerifolia* (Ait.) Willd. Roots Occurring Between Foam Layers Under Pavement. *Arboriculture & Urban Forestry* 37: 35–40
26. **Dahle, GA** and JC Grabosky. 2010. Variation in Modulus of Elasticity (*E*) along *Acer platanoides* L. (Aceraceae) branches. *Urban Forestry Urban Greening* 9:227-233
27. **Dahle, GA** and JC Grabosky. 2010. Allometric patterns in *Acer platanoides* (Aceraceae) branches. *Trees-Structure Function* 24:321–326
28. **Dahle, GA** and JC Grabosky. 2009. Review of Pertinent Literature on the Allometric Relationships in Tree Stems and Branches. *Arboriculture and Urban Forestry* 35:311-320
29. **Dahle, GA**. 2009. How the hydraulic and mechanical properties of wood influence branch form in Norway maple (*Acer platanoides* L.). Doctorate of Philosophy Dissertation. Rutgers University, New Brunswick New Jersey, 156 pp
30. **Dahle, GA**, H Holt, W Chaney, T Whalen, J Grabosky, DL Cassens, R Gazo, R McKenzie, and JB Santini. 2006. Decay patterns in silver maple trees converted from round-over to V-trim. *Arboriculture & Urban Forestry* 32:260-264
31. **Dahle, GA**, H Holt, W Chaney, T Whalen, D Cassens, R Gazo, and R McKenzie. 2006. Branch strength loss implications for silver maple trees converted from round-over to V-trim. *Arboriculture & Urban Forestry* 32:148-154
32. **Dahle, GA** 2004. Strength loss and decay patterns in trees converted from round-overs to V-trims during electrical line clearance operations. Master of Science Thesis. Purdue University, West Lafayette Indiana. pp. 57

**PEER-REVIEWED PUBLICATIONS – UNDER REVIEW**

1. Walker M, **G Dahle**. Literature review of unmanned aerial systems and lidar with application to distribution utility vegetation management. *Arboriculture & Urban Forestry* (In press)
2. Azambuja, R, D DeVallance, J McNeel, **G Dahle**. Cross-laminated timber panels produced from low-grade yellow-poplar sorted by structural visual grade. *Forest Products Journal* (in review)
3. Appiah H, B Dawson-Andoh, G Felton, **G Dahle**. Catalytic conversion of corncob-derived xylan to furfural using deep eutectic and gamma-valerolactone solvents. *Biomass Conversion and Biorefinery journal* (in review)

**PEER-REVIEWED PROCEEDINGS ARTICLES**

1. Beezley KE, **GA Dahle**, J Miesbauer, M Walker. 2019. Importance of the Root-Stem Transition Zone in the Stability of Urban Trees. Proceeding from the Landscape Below Ground Conference Oct 2018, Lisle IL.
2. Beezley, K, **G. Dahle**, J Miesbauer. 2016. Strain measurement within tress across the root-stem transition zone. Proceedings of the 11<sup>th</sup> Rights-of-Way Symposium, Halifax Nova Scotia CA. pp. 107-114.
3. **Dahle, GA**, H Holt, W Chaney, Whalen, D Cassens, R Gazo, and R McKenzie. 2008. Implications of branch strength loss in silver maple trees converted from round-over to V-trims during electrical line clearance operations. In: Proceedings of the 8<sup>th</sup> International Symposium for Environmental Concerns in Rights-Of-Way Management. Goodrich-Mahoney et al., eds. Elsevier, Amsterdam, The Netherlands. pp. 97-100

**PROCEEDINGS DOCUMENTS and ABSTRACTS**

1. **Dahle G**. 2019. Examining strain and angles in the lateral and codominant branch. International Society of Arboriculture 95th Annual Conference, Knoxville TN. August 2019.
2. Fang F, McNeil BE, **Dahle G**. 2018. Urban tree stress symptom detection using satellite images in Washington D.C. American Geophysical Union, Fall Meeting. Washington DC. August 2018.
3. **Dahle G**. 2018 Stories from Three Biomechanics Weeks. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018.
4. **Dahle G**. 2018. Testing Cabled Leaders in Mature Trees. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018.
5. Walker, M, **Dahle G**. 2018. Vegetation Management (VM) applications of aerial lidar and Unmanned Aerial Systems (UAS). International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018.
6. Fang F, **Dahle G**. 2018. Urban tree stress symptom detection using satellite images in Washington D.C. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018.
7. Wiseman, PE, K O'Herrin, **G Dahle**, S Day, J Sullivan, J Koci. 2018. Urban Forestry 2020: Insights into professionalism, higher education and career advancement. 12<sup>th</sup> Biennial Conference on University Education in Natural Recourse. Nacogdoches TX. March 2018.
8. Walker, M., A. Sakazaki, R. Eckenrode. **G. Dahle**. 2017. An Assessment of Tree City USA Cities in West Virginia. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.
9. Quinterno, M., **G. Dahle**. 2017. Imidacloprid Bark Spray Efficacy for HWA. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.
10. Fang, F., **G. Dahle**, B. McNeil. 2017. Remote sensing of urban tree stress and tree species in Washington DC. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.

11. **Dahle G.** 2017 What are cities looking for in an entry level urban forester. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.
12. Persad, A. **G. Dahle 2017.** 2017. Digital correlation stress relationships, acoustic transition times and root necrosis. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.
13. **Dahle, G.** 2015. Using stereo photogrammetry to model strain through the branch connect zone. International Society of Arboriculture 91th Annual Conference, Orlando FL. August 2015.
14. Beezley, K, **G. Dahle.** 2015. Strain measurement within trees across the root-stem transition zone. International Society of Arboriculture 91th Annual Conference, Orlando FL. August 2015.
15. Beezley, K, **G. Dahle.** 2015. Tree root to stem tissue transition and associated terminology. International Society of Arboriculture 91th Annual Conference, Orlando FL. August 2015.
16. Day, SD, K O'Herrin, A. Benjamin. **GA Dahle,** PE Wiseman, J Sullivan. 2015. Urban forestry 2020: a critical look at the profession. International Society of Arboriculture 91th Annual Conference, Orlando FL. August 2015.
17. Day, SD, **GA Dahle,** PE Wiseman, JH Sullivan, K O'Herrin, A Benjamin, J Koci. 2015. What is the role of the urban forestry in relation to allied profession? Ecological Society of America Annual Conference Baltimore MD August 2015.
18. Day, SD, K O'Herrin, A Benjamin, **GA Dahle,** PE Wiseman, JH Sullivan, J Koci, G Frey. 2015. What is the role of the urban forestry in relation to allied profession? Ecological Society of America Annual Conference Baltimore MD August 2015.
19. **Dahle, G.** 2014. Influence of Bark on the Measurement of Mechanical Strain using ARAMIS. International Society of Arboriculture 90th Annual Conference, Milwaukee WI. August 2014.
20. Carpenter, A., **G. Dahle.** 2014. Modulus of elasticity of urban pin oak trees. International Society of Arboriculture 90th Annual Conference, Milwaukee WI. August 2014.
21. Beezley, K., **G Dahle.** 2014. Non-Invasive measurement in the root plate during static loading trials. International Society of Arboriculture 90th Annual Conference, Milwaukee WI. August 2014.
22. Carpenter, A and **GA Dahle.** 2014. Shifts in Modulus of Elasticity in Urban Tree Branches. DCANRD Research & Creative Scholarship Conference. Morgantown WV.
23. **Dahle, GA,** FJ Gallagher, KVR Schafer, J Grabosky. 2011. Allometric Relationships of *Betula populifolia* in a Naturally Assembled Urban Woodlot. 96th ESA Annual Meeting. Austin TX.
24. **Dahle, GA,** J Grabosky, and L Struwe. 2008 Anatomical study to determine vessel to fiber ratio along Norway maple (*Acer platanoides* L.) branches. HortScience 43:594
25. **Dahle, GA,** H Holt, W Chaney, T Whalen, D Cassens, R Gazo, and R McKenzie. 2006. Structural reliability of silver maple trees converted from round-overs to v-trims in association with electrical distribution lines. Abstracts from the 8<sup>th</sup> International Symposium for Environmental Concerns in Rights-Of-Way Management
26. **Dahle, GA.** 2013. Does Taper Affect Bending Stress at the Base of Branches? Proceeding CD from International Society of Arboriculture 89th Annual Conference.
27. **Dahle, GA. K James,** 2012. A Brief Overview of Urban Tree Biomechanics Research. Proceeding CD from International Society of Arboriculture 88th Annual Conference.
28. **Dahle, GA,** J Grabosky. 2011. Do Little Leaf Linden (*Tilia cordata*) First Order Branches Develop with Torsional Balance? Proceeding CD from International Society of Arboriculture 87th Annual Conference.
29. **Dahle, GA.** 2008. Relationship of vessel to fiber ratio and the trade-off between hydraulics and mechanics in Norway maple (*Acer platanoides*). Proceedings CD from International Society of Arboriculture 84<sup>th</sup> Annual Conference

30. **Dahle, G.A.**, J. Grabosky. 2008. Anatomical study to determine vessel to fiber ratio along Norway maple (*Acer platanoides* L.) branches. In: Proceedings of Annual Meeting Northeast Region American Society for Horticultural Science. p. 20
31. Chaney, WE, HA Holt, RA Blaedow, **GA Dahle**, RL McKenzie. 2002. Soil fertilization and efficacy of paclobutrazol. In: Proceeding from the 29<sup>th</sup> Annual Meeting of the Plant Growth Regulation Society of America. pp. 118-122

### FACT SHEET

1. Cox, K., V Cruz, **G Dahle**. 2022. Hiring a Certified Arborist. WVU Extension Fact Sheet. <https://extension.wvu.edu/lawn-gardening-pests/trees-shrubs/hiring-a-certified-arborist>

### POPULAR PRESS

1. Walker, M, G Dahle, and JM Sparkman. 2021. The Research of Tree Failure Understanding why and how trees fail can help vegetation management managers to plan ahead. T & D World 06:40D-40F.
2. Day, S and **G Dahle**. 2016. Urban Forestry 2020: Formulating a strategy for our emerging profession. City Trees 52-3:12-16.
3. Day, S and **G Dahle**. 2015. Urban Forestry 2020 A closer look at an emerging profession. Arborist News 24:38-41.
4. **Dahle, G.** 2015. Restoration pruning after storms. Tree Care Industry Magazine XXVI: 10-12.
5. **Dahle, G.** 2014. AREA student membership opportunities connect peers and researchers. Arborist News 23:66-67.
6. Carpenter A and **G Dahle**. 2014. Biomechanics Research Week. Utility Arborist Newline 5:12-13
7. **Dahle, G.** West Virginia University Arboriculture Program Launches Fall 2011. International Society of Arboriculture AREA e-Newsletter Spring 2011, pg 4-5.
8. **Dahle, G.** A look back at tree biomechanics week: a researcher's perspective. 2011 Arborist News 20:41-42.
9. **Dahle, G.**, and J Grabosky. 2010. Can branch slenderness be used in arboricultural practice? Arborist News 19:28-31
10. **Dahle, G.**, H Holt and R McKenzie. 2003. Students see opportunity at Midwest urban tree care forum. City Trees 329:8-10

### POSTERS

1. Pierce, R., **GA Dahle**. 2021. The Street Tree Diversity of Eleven Small Ohio Cities. WVU Research Apprentice Program Seminar. April 2021
2. Fang, F., BE. McNeil, **GA Dahle**, T Warner, A. Maxwell, E. Eutsler. 2019 Remote sensing of urban tree health and tree species in Washington D.C. American Association of Geographers Annual Conference. Washington DC. April 2019.
3. DeToro, A., A Persad. **GA Dahle**. 2018. International Society of Arboriculture 93th Annual Conference. Technology transfer solutions. Columbus OH. August 2018.
4. Fang, F., BE. McNeil, **GA Dahle**. 2018 Urban tree stress symptom detection using satellite images in Washington D.C. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018.
5. Walker, M., A. Sakazaki, R. Eckenrode. **G. Dahle**. 2017. An Assessment of Tree City USA Cities in West Virginia. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.
6. Quinterno, M., **G. Dahle**. 2017. Imidacloprid Bark Spray Efficacy for HWA. International Society of Arboriculture 93th Annual Conference, Washington DC. August 2017.

7. Walker, M. A Sakazaki, R Eckenropde, **GA Dahle**, R Hannah. 2017. An assessment of Tree city USA in West Virginia. 21<sup>st</sup> Davis College Research & Creative Scholarship Day. April 2017.
8. Benjamin, A. **GA Dahle**. 2016. Perceptions of Urban Forestry Employers. International Society of Arboriculture 92nd Annual Conference, Fort Worth TX.
9. Day, SD, K O'Herrin, A. Benjamin. **GA Dahle**, PE Wiseman, J Sullivan. Urban forestry 2020: 2015. A critical look at the profession. International Society of Arboriculture 91th Annual Conference, Orlando FL.
10. Day, SD, **GA Dahle**, PE Wiseman, JH Sullivan, K O'Herrin, A Benjamin, J Koci. 2015. What is the role of the urban forestry in relation to allied profession? Ecological Society of America Annual Conference Baltimore MD.
11. Day, SD, K O'Herrin, A Benjamin, **GA Dahle**, PE Wiseman, JH Sullivan, J Koci, G Frey. 2015. What is the role of the urban forestry in relation to allied profession? Ecological Society of America Annual Conference Baltimore MD.
12. Beezley, K, **G. Dahle**. 2015. Tree root to stem tissue transition and associated terminology. International Society of Arboriculture 91th Annual Conference, Orlando FL.
13. Beezley, K and **GA Dahle**. 2014. Non-Invasive measurement in the root plate during static loading trials. International Society of Arboriculture 90<sup>th</sup> Annual Conference, Milwaukee WI.
14. **Dahle GA** and JC Grabosky. 2013. Allometry Effects on Urban Forest Biomechanics. International Society of Arboriculture 88<sup>th</sup> Annual Conference, Toronto ON, Canada.
15. Carpenter A. and **GA Dahle**. 2013. How Leaf Area and Allometry Effects Urban Tree Biomechanics. Davis College Graduate Student Competition. Morgantown WV
16. Carpenter A. and **GA Dahle**. 2013. Leaf Area and Allometry Effects on Urban Forest Biomechanics. 5<sup>th</sup> Annual FERC Graduate Symposium. Blacksburg, VA
17. **Dahle GA**, HA Holt, R McKenzie. 2004. Implications of branch strength loss in sliver maple trees converted from round-overs to V-trims during electrical line clearance operations. 2004, Forestry and Natural Resources Research Symposium, West Lafayette, IN
18. **Dahle GA**, HA Holt, R McKenzie. 2003. Influence of Pruning Methods on Health and Reliability of Silver Maple Trees. Forestry and Natural Resources Research Symposium, West Lafayette, IN
19. Chaney, WE, HA Holt, RA Blaedow, **GA Dahle**, RL McKenzie. 2002. Shoot Growth of White Oak in Response to Simultaneous Application of Fertilizer and Paclobutrazol. International Society of Arboriculture 77<sup>th</sup> Annual Conference, Seattle, WA
20. Chaney, WE, HA Holt, RA Blaedow, **GA Dahle**, RL McKenzie. 2002. Shoot Growth of White Oak in Response to Simultaneous Application of Fertilizer and Paclobutrazol. International Society of Arboriculture 5<sup>th</sup> European Congress, Oslo, Norway

## PODCASTS

1. Repairing Wind and Ice Storm Damage: Trees and Forests. Extension Calling: advice for the farm, garden, and home. WVU Extension. March 2021.
2. Does Taper Affect Bending Stress at the Base of Branches? International Society of Arboriculture Science of Arboriculture Podcast series. August 2014.  
Can Changes in Branch Allometry and Material Properties Lead to Structurally Safe Branches? International Society of Arboriculture Science of Arboriculture Podcast series. June 2011.

**TELEVISION**

1. Morgantown Tree Facts. 2012. A presentation of 27 slides designed to increase public awareness of the many benefits (environmental, aesthetic, & social) of urban tree resources and the basics of tree care (planting, pruning etc). Aired on Channel 15, Morgantown WV's local government access station. Beginning May 2012 – ongoing

**Videos**

1. Tree caused outages and relationship to stream and soil type. Delivered to TREE Fund After Hours. December 2020
2. Changes in Branch Allometry and Material Properties Lead to Structurally Safe Branches? DVD Video Presentation from a Two-Day Research Symposium. Kent OH. 2010

**PROFESSIONAL REPORTS**

1. Sparkman, JM, **GA Dahle**, M Walker. 2020. Development of a regional research approach to modeling tree failure risk probability affecting distribution overhead lines. Final Report to the TREE Fund Utility Arboriculture Research Fund grant UARF #19-UAA-01.
2. **Dahle GA**, J. Miesbauer, K. Beezley. 2016. Characterizing Strain and Load Transfer in the Root Flare. Final Report to the TREE Fund for Duling Grant 14-JD-02.
3. Walker M., A. Sakazaki, R. Eckenrode, **G. Dahle**. 2017. Ecosystem Benefits of Tree City USA Cities in West Virginia. Prepared for West Virginia Division of Forestry, Urban Forestry.
4. **Dahle, G.** 2013. Survey Trees for WVU Canopy Tour
5. **Dahle, G.**, 2012. Survey of Candidate Trees for WVU Canopy Tour
6. McKenzie, R., **G. Dahle** and H. Holt. 2003. Crawfordsville tree inventory report
7. McKenzie, R., **G. Dahle** and H. Holt. 2003. Crown Hill cemetery tree inventory report
8. McKenzie, R., **G. Dahle** and H. Holt. 2003. Lafayette tree inventory report
9. McKenzie, R., **G. Dahle** and H. Holt. 2003. Rochester tree inventory report
10. Graham, J., R. McKenzie, **G. Dahle** and H. Holt. 2003 Mitchell tree inventory report
11. Holt, H., R. McKenzie, **G. Dahle**, Z. Lowe, J. Olson, and D. Anderson. 2003. Industrial herbicide test
12. Holt, H., R. McKenzie, **G. Dahle**, J. Graham, and B. Knapp. 2002 Industrial herbicide test
13. **Dahle, G.**, R. McKenzie, and H. Holt. 2002. Fowler tree inventory report
14. **Dahle, G.**, R. McKenzie, and H. Holt. 2002. New Chauncey Hill tree inventory report
15. Holt, H., R. McKenzie, **G. Dahle**, and J. Clark. 2001. Industrial herbicide test
16. **Dahle, G.**, 2001. Agilent Santa Clara Five Year Tree Management Plant. Prepared for Agilent Technologies Company.
17. **Dahle, G.**, 2001. Teradyne Five Year Tree Management Plant. Prepared for Teradyne Company.
18. **Dahle, G.**, 2001. The Forum at Rancho San Antonio Five Year Tree Management Plant. Prepared for Marriot Corporation.
19. **Dahle, G.**, 2000. Hewlett-Packard Cupertino Five Year Tree Management Plant. Prepared for Hewlett-Packard Company.
20. **Dahle, G.**, 2000. Hewlett-Packard Santa Clara Five Year Tree Management Plant. Prepared for Hewlett-Packard Company.
21. **Dahle, G.**, P. Sacamano, L. Burkart, and E. Eshan. 1998. Methods for modeling the influence of precipitation on tree growth. Prepared for Pacific Gas & Electric Vegetation Management Program.
22. Anderson, G., **G. Dahle**, and P. Sacamano. 1998. Greassland fire potential and PRC 4292 compliance dates. Prepared for Pacific Gas & Electric Vegetation Management Program.

**PRESENTATIONS**

1. Tree Biomechanics – A Brief Primer. Biomechanics International Week. Hamilton, OH Biomechanics Week August 2022 (Invited – remote presentation)
2. How do trees deal with decay? West Virginia Woodland Stewards Seminar. August 2022 (Invited speaker – remote presentation)
3. Why should we make small pruning cuts? Alabama Cooperative Extension Raising Trees Webinar Series. February 2022 (national and international audience, Invited speaker – remote presentation)
4. What makes a codominant union...another reason for young tree pruning. Kentucky Arborist Association Annual Conference. Erlanger KY. February 2022 (Invited Speaker)
5. The Importance of Making Correct Cuts of Appropriate Size. Utah Nursery & Landscape Conference. Jan 2022 (Invited speaker – remote presentation)
6. Codominant Unions: One Reason to Prune Trees Early. New Jersey Shade Tree Federation. Cherry Hill NJ. October 2021 (Invited Speaker)
7. When is a Branch Union Considered a Codominant Union? MAC-ISA Annual Conference. Solomons MD. October 2021 (Invited Speaker)
8. Do I really need to prune my tree? West Virginia Woodland Stewards Seminar. August 2021 (Invited speaker – remote presentation)
9. Tree Biology Revisited: Growth and Development of Branches. Maryland Arborist Association 40th Annual Safety & Pesticide Recertification Seminar May 2021 (Invited – remote presentation).
10. How Tree Grow to deal with Gravity & Wind. Wisconsin Arborist Association Annual Conference. February 2021 (Invited Keynote – remote presentation)
11. The importance of making correct pruning cuts of appropriate size. Wisconsin Arborist Association Annual Conference February 2021 (Invited – remote presentation)
12. Tree caused outages and relationship to stream and soil type. TREE Fund After Hours. December 2020 (Invited – remote presentation)
13. How are branches connected to trunks? Trees Matter Montgomery County Parks Tree Symposium December 2020 (Invited speaker – remote presentation)
14. Do Lateral and Codominant Branches Behave the Same? Western Chapter ISA. November 2020 (Invited speaker – remote presentation)
15. Can we estimate the probability of failure along distribution corridors? September 2020. Trees & Utilities Virtual Conference. (Invited speaker)
16. Why Do Tree Branches Fail? TREE Fund Webinar Series. August 2020 (National and International audience, Invited speaker Webinar)
17. Tree Biomechanics: Tree, Wind & Gravity. California Tree Failure Report Program Annual Meeting. January 2020. Woodside CA. (Invited speaker)
18. How loads move through branches & insights into codominant failures. California Tree Failure Report Program Annual Meeting. January 2020. Woodside CA. (Invited speaker)
19. What's Up with Branches – Why Do They Fail? Indiana Arborist Association Annual Meeting. Indianapolis IN. January 2020. (Invited speaker)
20. Restoration of urban forests: Relevance of tree biomechanics and pollinators in replant selection. Natural Areas Association Conference. Pittsburg PA. October 2019. (Speaker)
21. Examining strain & angles in the lateral & codominant branches. International Society of Arboriculture 95th Annual Conference, Knoxville TN. August 2019. (Paper)
22. Looking Backward & forward through TREE Fund research. International Society of Arboriculture 95th Annual Conference, Knoxville TN. August 2019. (Invited Panel Member)
23. Tree Biomechanics Research: Collaboration is the key. Ohio Urban & Community Forestry 40th anniversary. Columbus OH. June 2019 (Invited Speaker)
24. Restoring trees after storms or topping. WVU Entomology/Horticulture Grad Seminar. Morgantown WV February 2019 (Invited speaker)

25. Biomechanics of Trees. Tree Care Forum. Lewis Ginter Botanic Garden. Richmond VA May 2019 (Invited Speaker)
26. Determination of Strain Patterns Across the Root-Stem Transition Zone in Urban Trees. The Landscape Below Ground IV. Lisle IL October 2018 (Paper)
27. Testing Cabled Leaders in Mature Trees. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018. (Paper)
28. Stories from Biomechanics Week: Past, Present, and Future. International Society of Arboriculture 94th Annual Conference, Columbus OH. August 2018. (Invited speaker)
29. Arboriculture & Urban Forestry at WVU. International Society of Arboriculture Workforce Summit. Charlotte NC. May 2018 (Invited speaker)
30. Using Biomechanics to Predict Tree Failures. Appalachian Vegetation Management Association Conference. Stonewall Jackson WV. March 2018 (Invited speaker)
31. Understanding How Trees Withstand Nature's Assault: A Biomechanical Approach. 2018. Mid-Atlantic Horticulture Short Course. Virginia Beach VA. January 2018. (Invited speaker)
32. Trees, wind & gravity. 2017 NW Ohio Urban Forestry Seminar. Bluffton University, Bluffton OH. November 2017 (Invited speaker)
33. Using digital image correlation to map mechanical loading and failures in urban trees. Forestry & Natural Resources Graduate Student Seminar. Purdue University West Lafayette IN. October 2017 (Invited speaker)
34. What are cities looking for in an entry level urban forester? International Society of Arboriculture Annual International Conference. Washington DC. Aug 2017 (Paper)
35. The science of branch and stem failures. Tree Risk Management Short Course VA Department of Transportation. Blacksburg VA. May 2017 (Invited speaker)
36. Refresher on tree biomechanics. Tree Risk Management Short Course VA Department of Transportation. Blacksburg VA. May 2017 (Invited speaker)
37. Adapting technology in arboriculture and forestry. West Virginia SAF Meeting. Glenville WV. April 2017 (Invited speaker)
38. Tree Risk Assessment. USDA Forest Service: Urban Forest Connection. Webinar April 2017. (Invited speaker)
39. Biomechanics: learning how trees fail. Davis College 150th Anniversary Celebration. Morgantown WV. Feb 2017 (Invited speaker)
40. Tree Assessment and Health on Tree Based Courses. WVU Appalachia Aerial Symposium. Morgantown WV. Nov 2016 (Invited speaker)
41. Biomechanical approaches to understand how trees withstand nature's assaults. Mid-Atlantic Chapter International Society of Arboriculture Annual Conference. Morgantown WV. Oct 2016 (Invited speaker)
42. Modeling strain in trees using stereo photogrammetry. Minnesota Shade Tree Short Course. Minneapolis MN. March 2016 (Invited speaker)
43. Using stereo photogrammetry to model Invited speaker in trees. Minnesota Shade Tree Short Course. Minneapolis MN. March 2016 (Invited speaker)
44. Biomechanical approaches to understand how trees fail. PennDel ISA Conference. Lancaster PA. March 2016 (Invited speaker)
45. NASA photogrammetry equipment and acoustics to measure how EAB attach and root balls from EAB affected trees. The Davey Institute's Research Showcase. Revenna OH, October 2015 (Invited speaker)
46. Using stereo photogrammetry to model strain through the branch connect zone. International Society of Arboriculture 91th Annual Conference, Orlando FL. August 2015. (Paper)
47. Is Wood More Likely to Fail in Cold Weather? Appalachian Vegetation Management Association Conference. Stonewall Jackson WV. March 2015 (Invited speaker)

48. Research on Branch Failure: Strength Loss, Elasticity & Taper. Ohio Tree Care Conference. Dayton OH. Feb 2015 (Invited speaker)
49. Restoration Pruning after Storms. Indiana Arborist Association Annual Conference. Indianapolis IN. Jan 2015. (Invited speaker)
50. Basic Electrical Systems: Primary Distribution. Indiana Arborist Association Annual Conference. Indianapolis IN. Jan 2015. (Invited speaker)
51. Vegetation Management Programs. Indiana Arborist Association Annual Conference. Indianapolis IN. Jan 2015. (Invited speaker)
52. Pruning to Restore after Storms. Tree Care Industry Association Annual Conference. Hartford CT. Nov 2014 (Invited speaker)
53. Tree Selection & Installation. Monongalia County Master Gardeners Training. Oct. 2014 (Invited speaker)
54. Tree Pruning. Monongalia County Master Gardeners Training. Oct. 2014 (Invited speaker)
55. Using Biomechanical Approaches to Understand How Branch Development Leads to Stable Crown Form. Presentation to NIFA visiting committee. Morgantown WV. Sept 2014 (Invited speaker)
56. Barks Influence on the Measurement of Mechanical Strain. WVU FRM Graduate Student Seminar Series. Morgantown WV. Sept 2014 (Invited speaker)
57. Using Biomechanical Approaches to Understand How Branch Development Leads to Stable Crown Form. NIFA McIntire-Stennis WVU Visit. Sept 2014 (Invited speaker)
58. Influence of Bark on the Measurement of Mechanical Strain using ARAMIS. International Society of Arboriculture 90th Annual Conference, Milwaukee WI. August 2014 (Paper)
59. ISA Research Agenda. NUCFAC Meeting. Kent OH. June 2014 (Invited speaker)
60. Urban Forestry 2020 - NUCFAC Grant Update. NUCFAC Meeting. Kent OH. June 2014 (Invited speaker)
61. ANZI A300 Pruning Techniques. WVU Extension Services - Tree Care Training for Landscape Professionals. Moundsville WV. Feb. 2014. (Invited speaker)
62. Hazard Tree Identification. WVU Extension Services - Tree Care Training for Landscape Professionals. Moundsville WV. Feb. 2014. (Invited speaker)
63. Can Destructive Sampling Lead to Insights into Restoration Pruning? Waynesboro Workshop. Waynesboro VA. Sept 2013 (Invited speaker)
64. Roots The Important "Hidden" Half. Waynesboro Workshop. Waynesboro VA. Sept 2013 (Invited speaker)
65. Effect of taper on Bending Stress at the Base of Branches? Biomechanics Week 2013 Symposium. Kent OH. August 2013. (Invited speaker)
66. Does Taper Affect Bending Stress at the Base of Branches? International Society of Arboriculture 89th Annual Conference, Toronto ON Canada. August 2013. (Oral paper)
67. The Wonders of Trees. North Elementary School 4th Grade Classes. Morgantown WV April 2013 (Invited speaker)
68. Can Destructive Sampling Lead to Insights into Restoration Pruning? Delaware Arborist & Tree Care Seminar. Wilmington DE. Feb 2013 (Invited speaker)
69. What You Need to Know About the New Tree Risk Assessment BMPs. Delaware Arborist & Tree Care Seminar. Wilmington DE. Feb 2013 (Invited speaker)
70. Can Destructive Sampling Lead to Insights into Restoration Pruning? WVU FRM Graduate Student Seminar Series. Morgantown WV. Feb 2013 (Invited speaker)
71. Can Breaking Stuff Lead to Insights into Restoration Pruning? New Jersey Shade Tree Federation, Cherry Hill NJ. Oct 2012 (Invited speaker)
72. Can Breaking Branches Lead to Insights into Restoration Pruning? Mid-Atlantic Chapter-ISA Annual Conference. Rocky Gap MD. Oct 2012 (Invited speaker)

73. Can Growth of Side Branches Lead to Lateral Imbalance in Primary Branches? Tree Risk Assessment, The Biomechanics of Stability, Strength & Structure. Morton Arboretum Lisle IL. Sept 2012 (Invited speaker)
74. State of the Literature Pertaining to Urban Tree Biomechanics. Tree Risk Assessment, The Biomechanics of Stability, Strength & Structure. Morton Arboretum Lisle IL. Sept 2012 (Invited speaker)
75. Change in the woods: Integration of urban & rural forestry. West Virginia Division of the Society of American Foresters. Morgantown WV Sept 2012 (Invited speaker)
76. Overview of Urban Tree Biomechanics Research. International Society of Arboriculture 88th Annual Conference, Portland OR. August 2012. (Paper)
77. Transplanting and Pruning Trees. SOFET. Lakin Correctional Facility Aug 2012. (Invited speaker)
78. Morgantown WV "Urban Forest USA?". Monongalia County Master Gardeners. Westover WV April 2012. (Invited speaker)
79. Transplanting Trees. Alpha Gamma Rho. Morgantown WV. Nov 2011 (Invited speaker)
80. Arboriculture and Urban Forestry at West Virginia University, a Growth Area for Students and Research. West Virginia Division of the Society of American Foresters. Pipestem WV Sept 2011 (Invited speaker)
81. How much soil should you place on top of a root ball when you install a tree West Virginia University, Morgantown WV March 2011 (Invited speaker)
82. Using Material Properties and Allometry to Understand How Tree Branches Develop. Arboriculture Seminar. West Virginia University, Morgantown WV. Oct 2010 (Invited speaker)
83. Can Changes in Branch Allometry and Material Properties Lead to Structurally Safe Branches? International Society of Arboriculture Tree Biomechanics Symposium, Kent OH August 2010 (Invited speaker)
84. Roots, The Forgotten 'Half' of a Tree. Urban Forestry Seminar. Western Illinois University. Macomb, IL. March 2010 (Invited speaker)
85. Modeling Tree Crown Development to Improve Urban Canopy Health. Urban Forestry Seminar. Lincoln University, Jefferson City MO. February 2010 (Invited speaker)
86. Exploring changes in allometric branch patterns related to variations in branch stiffness and anatomical properties along branches. International Society of Arboriculture 85th Annual Conference, Providence RI. July 2009. (Speaker)
87. How the Hydraulic and Mechanical Properties of Wood Influence Branch Form in Norway Maple (*Acer platanoides* L.). Doctorate defense seminar. Rutgers University, New Brunswick, NJ. February 2009 (Speaker)
88. Relationship of vessel to fiber ratio and the trade-off between hydraulics and mechanics in Norway maple (*Acer platanoides*). International Society of Arboriculture 84th Annual Conference, St. Louis MO. July 2008. (Speaker)
89. Managing trees after heading and reduction cuts, how CODIT and watersprouts influence tree safety. The Connecticut Tree Protective Association. Farmington CT. July 2008. (Invited speaker)
90. Finding space for trees in urban and community landscapes. New York Releaf – Planning for trees in urban and community landscapes workshop. Liberty, NY. April 2008. (Invited speaker)
91. Norway maple more than just invasive, a great tree to study the balance between hydraulics and mechanics. Rutgers University Ecology & Evolution Graduate Student Seminar. New Brunswick NJ. February 2008 (Invited speaker)
92. Anatomical study to determine vessel to fiber ratio along Norway maple (*Acer platanoides* L.) branches. Annual Meeting Northeast Region American Society for Horticultural Science. Rutgers University New Brunswick, NJ. January 2008 (Speaker)

93. Branch modeling for load distribution. Garden State Tree Conference. Rutgers University, New Brunswick, NJ. March 2006. (Invited speaker)
94. Trees & pavement: Design strategies for establishing trees around impervious materials. Mid-Atlantic Horticulture Short Course. Virginia Beach, VA. February 2006 (Invited speaker)
95. Do worms, fungi and mulch aid in tree establishment? Rutgers University Ecology & Evolution Graduate Student Seminar. New Brunswick, NJ. December 2005 (Invited speaker)
96. How utility through-pruning techniques relate to strength and decay patterns in silver maples, Pacific Northwest Chapter's Utility Vegetation Management Conference, Salem, OR. November 2005 (Invited speaker)
97. Decay Patterns in Silver Maple Stems, International Society of Arboriculture 81st Annual Conference, Nashville, TN. August 2005 (Speaker)
98. Structural reliability of silver maples converted from rounds-over to V-trims. Pennsylvania-Delaware Chapter of ISA, 40th Annual Shade Tree Symposium, Lancaster, PA. February 2005 (Invited speaker)
99. Research needs in transmission ROW. Pennsylvania-Delaware Chapter of ISA, 40th Annual Shade Tree Symposium, Lancaster, PA. February 2005 (Invited panel discussion)
100. Measuring branch architecture and localized wood strength properties, Garden State Tree Conference, New Brunswick, NJ. January 2005 (Invited speaker)
101. Pruning affects tree structure and reliability. Indiana Arborist Association Winter Conference, Indianapolis, IN. January 2005 (Invited speaker)
102. Structural reliability of silver maple trees converted from round-overs to V-trims. Rutgers University Ecology & Evolution Graduate Student Seminar. New Brunswick, NJ. October 2005 (Invited speaker)
103. The Tender Years: Selecting, transplanting and caring for trees during the first two years in the ground. Rutgers Cooperative Extension, Master Gardener Association of New Jersey Annual Conference, New Brunswick, NJ. October 2004 (Invited speaker)
104. Structural reliability of silver maple trees converted from round-over to V-prunes in association with electrical distribution lines. 8th Rights-of-Way Symposium, Saratoga Springs, NY. September 2004 (Speaker)
105. Branch attachment strength loss implications for silver maple trees converted from round-over to v-trims. International Society of Arboriculture 80th Annual Conference, Pittsburgh, PA. August 2004 (Speaker)
106. Effects of soil surface treatments on tree establishment. Tree Florida Conference, Key West FL. June 2004 (Invited speaker)
107. Influence of planting depth and root number on trees. Tree Florida Conference, Key West FL. June 2004 (Invited speaker)
108. Strength loss and decay patterns in trees converted from round-overs to v-trims during electrical line clearance operations. Masters defense seminar. Purdue University, West Lafayette, IN. April 2004 (Speaker)
109. Influence of Pruning Methods on Health and Reliability of Silver Maple Trees. International Society of Arboriculture 78th Annual Conference, Montreal, Quebec, Canada. August 2003 (Speaker)
110. Influence of Pruning Methods on Health and Reliability of Silver Maple Trees. 4<sup>th</sup> Plant Biomechanics Conference, East Lansing, MI. July 2003 (Speaker)
111. Progress Report on the Influence of Pruning Methods on Tree Health and Reliability. Indiana Arborist Association Winter Conference, Indianapolis, IN. January 2003 (Invited speaker)

## **SERVICE**

### Affiliations & Committees

Allegany College of Maryland Forestry Advisory Committee 2020 – present  
ANSI A300 Part-1 Pruning Subgroup. 2013-2015.  
Appalachian Vegetation Management Association, Board of Director 2015 – 2018, 2021 – present  
Bartlett Tree Foundation, Consulting Director 2011 – present  
International Society of Arboriculture  
Arboriculture Research & Education Academy (AREA) President, 2013 – 2014  
AREA VP then President-Elect, 2011 – 2013  
Best Management Practices Review Committee, 2022 – present  
Biomechanics Week Planning Committee 2011 – 2022  
Conference & Programing Committee 2013 – 2014  
Chair Conference & Programing Committee 2017  
Membership Committee 2015 – 2019  
Proctor Certified Arborist Exam 2004 – 2018  
Student Sub-committee, 2013 – 2019  
Utility Arborist Association Research Committee 2012 – present

Mid-Atlantic Chapter International Society of Arboriculture  
Annual Conference Committee 2011  
Annual Conference Committee Program Chair 2015 –16  
Certified Arborist Preparation Course Instructor 2020 – present  
Board of Directors 2012 – 2016  
Scholarship Committee Chair 2014 – 2016

Morgantown Tree Board, Morgantown, WV, 2011 – present

Rutgers University, Ecology & Evolution Graduate Student Association  
Correspondence Secretary, 2006 – 2008  
Co-Chair Student Seminar, 2005 – 2006

### Purdue University

Treasurer, Purdue Graduate Student Government, 2002 – 2004  
Supervisor, Student Society of Arboriculture Tree Care Crew, 2002 – 2004  
Forester/President, Xi Sigma Pi National Forestry Honor Fraternity, 1994 – 1995  
President and Vice President, Student Chapter of The Wildlife Society, 1993 – 1995  
Co-Editor, The Log, Departmental Yearbook, 1993 – 1994

West Virginia Urban Forest Council 2011-present

### West Virginia University

#### Division of Forestry & Natural Resources

Arboriculture Scholarship Committee Chair 2015 – present  
Diversity, Equity & Inclusion Committee 2020 – present  
Policy Committee 2022 – present  
Program Coordinator Sustainable Forestry & Biomaterials 2017 – 2022  
Promotion & Tenure Committee 2019 – 2021  
Student Arboriculture & Urban Forestry Club – Advisor 2013 – present  
Xi Sigma Pi Forestry Honor Fraternity – Advisor 2012 – 2014

Davis College

Davis College Faculty Executive Committee 2020 – present  
Davis College Faculty Executive Committee Chair 2021 – 2022  
Davis College Advising Task Force, 2021 – present  
Davis College Assessment Council 2021 – present  
Davis College Structure Committee 2021  
Gamma Sigma Delta, Executive Committee April 2021 – present  
Student Research & Creative Scholarship Committee 2014 – 2018  
Student Research & Creative Scholarship Judge 2013, 2014

University

Academic Technology Committee 2022 – present  
Faculty Senator 2022 – present  
Tree Campus USA Board Member 2017 – present

**PROFESSIONAL AFFILIATIONS and HONOR SOCIETIES**

Appalachian Vegetation Management Association  
Arboricultural Research and Education Academy  
Gamma Sigma Delta Honor Fraternity  
International Society of Arboriculture  
Mid-Atlantic Chapter International Society of Arboriculture  
Utility Arborist Association  
Xi Sigma Pi Forestry Honor Society