

Tara L. Bal, PhD, CF

Curriculum Vitae - March 2023

College of Forest Resources and Environmental Science, Michigan Technological University
Noblet Building, Office 112, 1400 Townsend Dr, Houghton, MI 49931
Work: (906) 487-1898 | Cell: (906) 281-6241 | Email: tibal@mtu.edu
<https://tinyurl.com/GScholarTLBal> | h-index:8 | Total Citations: 233 (March '23)
ORCID iD: 0000-0001-5784-6101

EDUCATION

- Michigan Technological University, Ph.D. Forest Science 2013
Dissertation: “*Evaluation of Sugar Maple Dieback in the Upper Great Lakes Region and Development of a Forest Health Education Program.*”
- Michigan Technological University, M.S. Forest Ecology and Management 2007
Thesis: “*Emerald Ash Borer: Host preferences of a newly established population and development of silvicultural management tools.*”
- Purdue University, B.S. Forestry, Minor: Wildlife Science 2004
Specialization in Botany

PROFESSIONAL ACCREDITATION

- Certified Forester #147361 2014 – present
Society of American Foresters

PROFESSIONAL PROFILE OF EMPLOYMENT

- *SFRES= CFRES (School of Forest Resources and Environmental Science transitioned to College in 2019)
- Michigan Technological University, CFRES, Houghton, MI 2020 – present
Assistant Professor, Forest Health
- Michigan Technological University, CFRES, Houghton, MI 2014 – 2020
Research Assistant Professor
- Michigan Technological University, CFRES, Houghton, MI 2014 – present
Master of Forestry Degree Program Director
- Michigan Technological University, SFRES, Houghton, MI 2013- 2018
Administrative Staff and Research Assistant
- Michigan Technological University, SFRES, Houghton, MI 2013
Assistant to the Director of Development and Outreach
- Michigan Technological University, SFRES, Houghton, MI 2007-2009
Research Technician, Sirex Woodwasp/Emerald Ash Borer Detection Surveys
- Texas Forest Service, Palestine, TX 2004-2005
Forest Inventory and Analysis Forester II
- Purdue University, Forestry and Natural Resources, West Lafayette, IN 2002
Research Assistant, ecological mapping in Northern Indiana
- Purdue University, Forestry and Natural Resources, West Lafayette, IN 2002
Lab Technician, Hardwood Tree Improvement & Regeneration Center
- Eberhart Excavating, Mishawaka, IN 1999-2001
Heavy Machinery Driver (tractors, skidders, articulated dump trucks)
- Notre Dame University, Department of Biological Sciences, South Bend, IN 1999-2000
Mosquito Lab Technician, Insect Vector Ecology Laboratory

TEACHING EXPERIENCE

‡ delivered in Alberta, Michigan as part of Integrated Field Practicum ("camp")

‡Forest Health, FW 3840, 3 credits **this course also has between 1-6 MF students in FW5700*

Bal, 19 students	Summer 2023
Bal, 40 students	Fall 2022
Bal, 13 students	Summer 2022
Bal, 51 students	Fall 2021
Bal, 17 students	Summer 2021
Bal, 40 students, <i>hybrid</i>	Fall 2020
Bal, 9 students, <i>virtual/online</i>	Summer 2020
Bal, 29 students	Fall 2019
Bal, 14 students	Summer 2019
Bal, 31 students	Fall 2018
Bal, 15 students	Summer 2018
Storer and Bal, 51 students	Fall 2012

‡Insect Ecology, FW3800, 2 credits

Bal, Lane-Clark- graduate teaching experience, 12 students	Summer 2023
Bal, Schneider- graduate teaching experience, 33 students	Fall 2021
Bal, 11 students	Summer 2021
Bal, 24 students, <i>hybrid</i>	Fall 2020
Bal, 6 students, <i>virtual/online</i>	Summer 2020
Bal, 12 students	Fall 2019
Bal, 7 students	Summer 2019
Bal, 13 students	Fall 2018
Bal, 7 students	Summer 2018
Bal, 15 students	Fall 2017
Bal, 10 students	Summer 2017
Bal, 8 students	Fall 2016
Bal, 9 students	Summer 2016
Bal, 12 students	Fall 2015
Bal, 15 students	Fall 2014
Bal, 13 students	Fall 2013

‡Forest Management, FW 5079, 2 credits

Bal and Jarvi, 5 students	Fall 2022
Bal and Jarvi, 1 student	Summer 2022
Bal and Jarvi, 2 students	Fall 2021
Bal and Jarvi, 3 students	Summer 2021
Bal and Jarvi, 2 students	Summer 2020
Bal and Jarvi, 3 students, <i>hybrid</i>	Fall 2020
Bal and Jarvi, 2 students, <i>online/virtual</i>	Summer 2020
Bal and Jarvi, 4 students	Fall 2019
Bal and Kelly, 3 students	Summer 2019

Professionalism in Forestry, FW 5081, 1 credit, Spring Semester

Bal, 4 students	2023
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Bal, 9 students	2022
Bal, 6 students	2020
Bal, 12 students	2019
<u>The Natural Resources Professional, FW1050, 2 credits, Spring Semester</u>	
Bal and Burton, 92 students	2022
Bal and Burton, 76 students	2020
Bal and Jondreau, 72 students	2019
Bal and Storer, 60 students	2018
<u>Maple Syrup Mgmt & Culture, FW 3765, 1 credit, online *HAAS designation</u>	
Bal, 42 students	2020
Bal, 40 students	2019
Bal, 41 students	2018
Bal, 40 students	2017
Bal, 37 students, FW4500	2016
Bal, 19 students, FW4500/5510	2015
<u>Communication for Natural Resources Professionals, FW 4800, 2 credits, Fall Semester</u>	
Jarvi, Bal, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer 36 students	2019
Storer, Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer 29 students	2018
Storer, Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer 12 students	2017
Storer, Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer 9 students	2016
<u>Field Techniques, FW 2051, 2 credits, Fall Semester</u>	
Bal, 68 students	2017
Bal, 67 students	2016
Bal, 59 students	2015
Bal, 58 students, *1 credit	2014
<u>Wild Foods: People and Plants in the Northern Forest, Summer Semester</u>	
Bal, 8 students, online	2021
Bal, 7 students, FW 3111, 2 credits online	2019
Bal and Schmidt, 12 students, FW4500, 1 credit online	2017
<u>Vegetation of North America, Fall Semester, 4 cr UG, 2 cr G</u>	
Bal and Webster, Woody Plants, FW 5020, 8 students	2017
Webster and Bal, Woody Plants, FW5020, 10 students	2016
Jarvi and Bal, FW 2010/5020, 62 students, 11 in G	2015
Roth and Bal, FW 2010, 62 total students, 10 in G	2014
Pregitzer, FW 2010, 11 students, TA	2006
<u>Independent Study, Bal, FW4500 (service/uncompensated)</u>	
<u>Plants and Fungal Biocontrol</u> 1 student, 2 credits	Spring 2023
<u>Forest Health Advanced</u> 1 student, 3 credits	Fall 2021
<u>Insect Field Research</u> 2 students, 2 credits	Fall 2019
<u>Woody Plants of the Great Lakes Region</u> 1 student, 2 credits	Summer 2019

<u>Sugarbush Operations</u> 1 student, 2 credits	Spring 2019
<u>Special Topics, Bal, FW5510 (service/uncompensated)</u>	
<u>Coleoptera Natural History</u> 1 student, 2 credits	Fall 2021
<u>Michigan Forest Tax Policy</u> 1 student, 1 credit	Spring 2018
<u>Mechanical & Anatomical Properties of Wood</u> 1 student, 2 credits	Fall 2016
<u>Teaching in Natural Resources</u> 1 student, 4 credits	Fall 2016
<u>Michigan Forest Health</u> 1 student, 1 credit	Summer 2014

Other courses delivered

<u>Ethnobotany</u> FW3116, Orr and Bal, 14 students, 3 credits	Fall 2019
<u>Integrated Resource Data Collection</u> Kelly, FW4811	Fall 2018
<u>Integrated Resource Practicum</u> Kelly, FW4812 4 credits, Team advisor, 6 students	Spring 2019
<i>“Pollinator Management Plan for Michigan Northwoods Club, Marquette, MI”</i>	
<u>Wood Anatomy and Products</u> FW1035, Bal, 41 students, 4 credits	Spring 2016
<u>Research Methods in Natural Resources</u> , FW5810, Storer, 13 students	Fall 2012
<u>‡Multiple Resource Assessment</u> , FW3190, 48 students, 3 credits	Fall 2008
<u>Integrated Resource Practicum</u> , FW4810, 41 students, 4 credits	Spring 2009

Additional Youth and Adult Educational Instruction

Forest Health Workshop, Chassell Elementary School	2021
Aquatic Macroinvertebrate Tutorials for Educators, Alberta, MI	2017
Engineering Exploration Day for Middle and High School Girls, MTU Center for Science and Environmental Outreach	2017
Get WISE, (Women in Science and Engineering), MTU Pre-College Outreach	2017
Summer Youth Programs, Michigan Tech, ‘Ecology and the Environment’	2013, 2014
Western Upper Peninsula Center for Science, Mathematics, and Environmental Education, (WUPCSMEE) Natural Resources Presenter	2006-occasionally
Great Explorations, Calumet-Lake Linden-Keweenaw (CLK) Child Development, Summer Science Leader	2008
Great Explorations, Baraga, Houghton, Keweenaw (BHK) Child Development, Tutor	2006-2007
Purdue University, Department of Forestry and Natural Resources, Tutor	2003-2004

HONORS and AWARDS

Nominated by Michigan Society of American Foresters, SAF Fellow	Spring 2023
Excellence in Design Poster- MTU, Undergrad. Res. Sym. Coauthor K. Bershing	2023
3 rd Place Poster Award- Natural Areas Association, Coauthor A. Stone	2022
Poster Merit Award, Ecosystem Science Center Symposium, Coauthor A. Stone	2022
1 st Place Poster Award- The Wildlife Society, Coauthor K. Schneider	2021
2 nd Place Presentation Award- MTU Grad Res. Coll., Coauthor K Schneider	2021
MTU, Recognition for Outstanding Transition to Remote Instruction during Pandemic	2020
MTU, Exceptional “Average of 7 Dimensions” Teaching Accomplishment	2017

Michigan Technological University CLT Instructional Award Curriculum Development and Assessment	2017
Dean's Teaching Showcase Member, SFRES and the William G. Jackson Center for Teaching and Learning (February)	2017
Michigan Society of American Foresters Certificate of Appreciation for Dedication while serving as UP Chair	2016
Graduate School, MTU Dean's Award for Outstanding Scholarship	2013
Graduate Student Council Research Poster Session, MTU Best Presentation, 3 rd Place	2006
Ecosystem Science Center Graduate Research Grant, MTU	2006
Ecosystem Science Center Graduate Travel Grant, MTU	2006
Graduate Student Council Travel Grant, MTU	2006
North Central Forest Pest Workshop, LaCrosse, WI 'Best New Research Idea' poster award	2005
Graduate Student Council Travel Grant, MTU	2005
FNR Summer Practicum, Purdue University, Iron River, MI "Biltmore Wings"	2003
Purdue University, West Lafayette, IN Martell Scholarships	2001-2003

PROFESSIONAL MEMBERSHIPS and AFFILIATIONS

North Central Forest Pest Workshop, Member at large	2019-2022
Michigan Forest Association, Board of Directors	2022-2024
2023 Michigan Forest Celebration Chair	2022-2023
Natural Areas Association, Professional Member	2021-present
Forest Stewards Guild, Professional Member	2019-2020
Wild Mushroom Identification Certification #MC00547	2018 – 2022
MI Department Agriculture and Rural Development and Midwest American Mycology Info	
Women in Natural Resources, FRES	advisor '18-'19
Women in Natural Resources, FRES	co-advisor '17,'18, '20
Ecosystem Science Center, FRES	2013-present
Wood Protection Group, FRES	2013-present
Society of American Foresters	2003-present
District 5 Representative, National Board of Directors	elected 2019, 2020-2023
Liaison to the Certification Review Board	2020-2023
Executive Committee Member	2020-2023
Forester's Fund Proposal Co-author, \$15K, Leadership Academy	2021
WI- SAF DEI Initiative Board	2020-2021
#ForestProud Merger Advisory Panel	2021
F3-Diversity & Inclusion Working Group	2015-present
D1- Forest Health & Genetics Working Group	2012-present
Michigan SAF, MTU Liaison, 2 nd Webmaster (communications)	2018-present
Michigan SAF, UP Chapter Chair	2016-2018

Michigan SAF, UP Chapter Vice Chair	2013-2015
Michigan SAF Continuing Forestry Education Coordinator	2015-2018
Michigan Tech Student Chapter Vice Chair	2006-2007
Entomological Society of America	2005-2010, 2022-present
Michigan Entomological Society	2023- present
Copper Country Beekeeping Club	2020-present
Xi Sigma Pi, MTU, Forestry Honor Society	2013 induction
Ecological Society of America	2010-2012
The National Society of Leadership and Success	2011 induction
American Society for Environmental History/Forest History Society	2002-2006
Fun-rth, Purdue University, (natural resources tutoring organization)	2003-2004
Gamma Sigma, Purdue University, Agricultural Honor Society	2003 induction

COLLABORATIVE WORKING GROUPS and COMMUNITY PARTNERSHIPS

Lake Superior Stewardship Community Partner, Chassell Township Schools	2023+
Advisory Group, UW Extension Maple Syrup Program	2023+
Sister Forest Collaborative Group (Björkoholmen, Sweden)	2022+
Great Lakes Basin Forest Health Collaborative, Tree Breeding programs	2022+
Great Lakes Forest Fire Compact (GLFFC) Forest Health Contact List	2020+
Beech Leaf Disease Research Working Group affiliation	2020+
Interdisciplinary Berry Working Group, Research Development Group MTU	2019

PUBLICATIONS and PRESENTATION CITATIONS

*Eberhart is maiden name

PEER REVIEWED PUBLICATIONS

22. Bal, T. 2023. Draw a bee: A simple drawing activity can highlight our misperceptions and diversity of bees. *The American Biology Teacher* 85 (1): 45-47.
DOI:10.1525/abt.2023.85.1.45.
21. Myers, A., Dickinson, Y., Storer, A., Bal, T. 2022. A pilot study in transplanting methods for wildling American beech (*Fagus grandifolia*). *Horticulturae* 8: 565
DOI:10.3390/horticulturae8070565.
20. Schneider, K., Brzeski, K., Bal, T.L., 2022. "Novel Applications of iDNA Tool for Measuring Small Mammal Community Biodiversity Via Silphid Beetles." In: Proceedings of the Northern Hardwood Conference. General Technical Report. (accepted, available online in 2022 <https://www.fs.usda.gov/treesearch/>).
19. Burmann, L., Kelly, M., Schelly, C., and Bal, T.L.. 2022. Formative interests and pathways to natural resources careers among historically underrepresented people. *Society and Natural Resources*. 35(3): 260-280. DOI:10.1080/08941920.2022.2028046.
18. Bal, T.L., Dickinson, Y., Storer, A. 2022. "Exotic earthworms impact forests: increase awareness and integrate impacts into forest management decisions." In: Proceedings of the Northern Hardwood Conference. General Technical Report. (accepted, available online in 2022 <https://www.fs.usda.gov/treesearch/>).
17. Owuor, J.A., Giessen, L., Prior L.C., Cilio, D. , Bal, T.L., Bernasconi, A., Burns, J., Chen, X., Goldsmith, A. A., Jiacheng, Z., Kallioniemi, M., Kastenholz, E., Larasatie, P., Lehtikoinen, A., Lewark, S., Maciel Viana, C., Montero de Oliveira, F.E., Oberholzer, F., Sharik, T.L., Schwärzli, J., Schweinle, J., Viitanen, J., Wästerlund, D., Yovi, E. Y. and Winkel, G. 2021.

- (Editorially reviewed by EFI). Trends in forest-related employment and tertiary education: Insights from selected key countries around the globe. European Forest Institute (EFI). <https://efi.int/publications-bank/trends-forest-related-employment-and-tertiary-education-insights-selected-key> DOI: 10.36333/k2a.
16. Ela, R.C.A., Chipkar, S., Bal, T.L., Xie, X., and Ong, R.G. 2021. Lignin-propiconazole nanocapsules are an effective bio-based wood preservative. *ACS Sustainable Chemistry and Engineering*. 9(7): 2684-2692. DOI: 10.1021/acssuschemeng.0c07742
 15. Sharik, T.L.; Storer, A.J.; Bal, T.L.; Abbas, D. 2020. Education as a driver of change in U.S. forests and the forest sector. In: Dockry, M.J.; Bengston, D.N.; Westphal, L.M., comps. 2020. Drivers of change for U.S. forests and forestry over the next 20 years. Gen. Tech. Rep. NRS-P-197. Madison, WI: U.S. Department of Agriculture, Forest Service, Northern Research Station: 84–99. <https://doi.org/10.2737/NRS-GTR-P-197-paper9> , <https://www.fs.usda.gov/treearch/pubs/61513>
 14. Bal, T., Rouleau, M., Sharik, T., Wellstead, A. 2020. Enrollment Decision-making by Students in Forestry and Related Natural Resources Degree Programs Globally. *International Forestry Review* 22(3): 287-305. DOI: 10.1505/146554820830405627
 13. Bal, TL, Schnieder, KE, Richter, DL. 2020 Decay of birdseye sugar maple (*Acer saccharum*) and curly red maple (*Acer rubrum*). *Wood and Fiber Science* 52(3): 292-297. DOI: 10.22382/wfs-2020-027
 12. Bal, T, Richter, D, and Raj, J. 2019. Influence of Chaga (*Inonotus obliquus*) in wood decay tests. *Current Research in Environmental and Applied Mycology* 9(1): 85-91. DOI: 10.5943/cream/9/1/9.
 11. Bal, T, Sharik T. 2019. Web content analysis on university forestry landing webpages: What gender and race/ethnicity diversity is seen by potential students? *Journal of Forestry*. 117(4): 379–397. DOI: 10.1093/fvx/fvz024
 10. Bal, T, Sharik T. 2019. Image Content Analysis of U.S. Natural Resources-Related Professional Society Websites with Respect to Gender and Racial/Ethnic Diversity. *Journal of Forestry* 117(4): 360–364. DOI: 10.1093/fvx/fvz023
 9. Cladas, K, Bal, T, Storer, A. 2018. Is success in detection of *Agrilus planipennis* related to forest edges? *Journal of Applied Entomology*. 143: 214-224. DOI: 10.1111/jen.12591
 8. Bal, TL, Storer, AJ, Jurgensen, MF, 2018. Evidence of damage from exotic invasive earthworm activity was highly correlated to sugar maple dieback in the Upper Great Lakes Region. *Biological Invasions*. 20(1): 151-164. DOI: 10.1007/s10530-017-1523-0
 7. Rekola, M, Abbas, D, Bal, T, Burns, J, Lackner, M, Rodriguez, S, Sharik, T(eds). 2017. Global Outlook of Forest Education (GOFE): A Pilot Study Report. International Union of Forest Research Organizations and International Forestry Students Association. Available online at www.foresteducation.wordpress.com. 145p.
 6. Bal, TL, Abbas, D, Sharik, T, and Storer A. 2017. Forestry Education competency analysis of recent graduates in the U.S. In *Global Outlook of Forest Education (GOFE) Joint IUFRO-IFSA Task Force on Forest Education*. Available online at www.foresteducation.wordpress.com. Pgs 132-145
 5. Bal, TL and Storer, AJ, 2015. Evaluation of sugar maple dieback trends in the Upper Great Lakes Region (Project NC-EM-B_10_02). 2015. Pgs 119-124 in Potter, KM and Conkling, BL., eds. 2015. Forest health monitoring: national status, trends, and analysis 2014. Gen. Tech. Rep. SRS-209. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 190 p.

4. Bal, TL, Storer, AJ, Jurgensen, MF, Doskey, PV, Amacher, MC 2015. Nutrient stress predisposes and contributes to sugar maple dieback across its northern range: a review. *Forestry* 88 (1): 64-83.
3. Janowiak, MK, Iverson, L, Mladenoff, DJ, Peters, E, Wythers, KR, Xi, W, Brandt, LA, Butler, PR, Handler, SD, Shannon, PD, Swanston, CW, Parker, LR, Amman, AJ, Bogaczyk, B, Handler, C, Lesch, E, Reich, PB, Matthews, S, Peters, M, Prasad, A, Khanal, S, Liu, F; Bal, T; Bronson, D, Burton, A, Ferris, J, Fosgitt, J, Hagan, S, Johnston, E, Kane, E, Matula, C, O'Connor, R, Higgins, D, St. Pierre, M, Daley, J, Davenport, M, Emery, MR; Fehringer, D, Johnson, G, Neitzel, D, Notaro, M, Rissman, A, Rittenhouse, C, Ziel, R., 2014. Forest ecosystem vulnerability assessment and synthesis for northern Wisconsin and western Upper Michigan: a report from the Northwoods Climate Change Response Framework. Gen. Tech. Report. NRS-136. Newtown Square, PA; U.S. Department of Agriculture, Forest Service, Northern Research Station 247 p. www.treearch.fs.fes.us/pubs/46393
2. Bal, TL, 2014. Forest Health Detectives. *The American Biology Teacher*. 76 (8): 532-537. DOI: 10.1525/abt.2014.76.8.7
1. Bal, TL, Storer, AJ, Richter, DL, Jurgensen, MF. 2013. The relationship of the sapstreak fungus, (*Ceratocystis virescens*) to sugar maple dieback and decay in northern Michigan. *The American Journal of Plant Sciences* 4(2A): 436-443.

BOOKS

The Turkey Tail Mushroom and its Many Look-alikes. August Camp and Tara Bal. Illustrated by Ande Myers. Michigan Tech Digital Commons. 2022. ISBN: 978-1-7326524-7-7. DOI:10.37099/mtu.dc.oabooks/8, <https://digitalcommons.mtu.edu/oabooks/8/>

CURATED COLLECTIONS

Michigan Technological University Insect Collection (MTU-MTUIC) since 2020
<https://scan-bugs.org/portal/collections/misc/collprofiles.php?collid=333>
 Over 9,000 preserved specimens, with unique DOIs online, over 10,000 cataloged in collection
 Collections dating back to 1960s focusing on Baraga and Houghton County, Michigan

Wood Protection Group Fungi Culture Collection since 2019
<https://www.mtu.edu/forest/research/partnerships/wpg/>
 Over 400 live cultures, used in experimental laboratory testing, Rots, Molds, and Mycorrhizae

OTHER PUBLICATIONS AND REPORTS

**does not include testing reports or progress reports to sponsors (n=100+)*

- Bal. 2023. Michigan Forest Health Highlights 2022. www.michigan.gov/dnr
 Bal Forest Health Lab Overview
 Northern Oak Wilt Modeling (Bal, Reed)
 Beech Bark Disease Resistance and Experimental Plantings (Bal, Myers)
- Bal. 2022. Cleveland Museum of Natural History. Sample submission of *Lipaphis allariae*, garlic mustard aphid. First sample from Michigan submitted to Holden Arboretum, Ohio.
- Bal. 2022. Rev. of "The American chestnut: an environmental history." By Davis, D.E. Choice, October 2022, 60 (2).
- Bal. 2022. Michigan Forest Health Highlights 2021.
 Northern Oak Wilt Modeling (Bal, Reed)
 Sugar Maple Dieback: 10+ years later
 Beech Bark Disease Resistance and Experimental Plantings (Bal, Myers)
- Bal. 2021. Rev. of "Colour atlas of trees and woody plants" By Bowes, B., CRC Press. Choice, July 2021, 58(11).

- Bal. 2021. Research and Monitoring Michigan Technological University- Bal lab update; “Beech Bark Disease Research Update: Alternate source of grafting rootstock” By Myers and Bal Michigan Forest Health Highlights 2020.
- Bal. 2021. Research and Monitoring MTU- Bal lab update; “Maple dieback continues to be reported” by Grinstead and Bal. Michigan Forest Health Highlights 2020.
- Bal, TL. 2019. Rev. of “Dance of the dung beetles: their role in our changing world” By Byrne, M., and Lunn, H. Wits University Press. Choice, December 2019, 57:1326.
- Bal, TL. 2019. “Earthworms: good for your garden, not-so-good for your woods” Michigan Forests. Michigan Forest Association. Summer 2019, 41(3): 12-13.
- Bal, TL. 2019. Rev. of “Evolutionary dynamics of plant-pathogen interactions” By Burdon, JJ. Cambridge University Press. Choice, August 2019, 56:12.
- Bal, TL. 2019. Rev. of “Sedges and rushes of Minnesota: the complete guide to species identification” By Welby Smith. University of Minnesota Press. Choice, February 2019, 56:6.
- Provost’s Task Force on Innovation, 2018. Report to the Provost and Senior Vice President for Academic Affairs on Recommendations for Enhancing and Adding to Michigan Tech’s Methods of Education Delivery. Sent 12-7-2018.
- Price, G. 2018. Michigan Timber Tax Policy: An Overview 2018. T. Bal and B. Orr (Eds). Sent to multiple forestry news outlets (emailed to members of groups) and available online
- Bal, TL. 2018. Canadian Institute of Forestry, Central Ontario Section News. 2018 Joint SAF/CIF Chapter Meeting Report. May 2018 Issue 4.
- Bal, TL. 2018. Rev. of “The living forest: a visual journey into the heart of the woods.” By Joan Maloof. Timber, 2017. Choice, July 2018, 55:11.
- Bal, TL. 2018. Rev. of “Mushrooms of the Southeast” By Todd F. Elliott and Steven L. Stephenson. Timber. Choice, July 2018 55: 4022.
- Bal, TL. 2017. Rev. of “The green menace: emerald ash borer and the invasive species problem” By Marche, J. Oxford University Press, Choice, April 2018 55:8.
- Bal, TL. 2017. Earthworms. Good in Your Garden, Not-So-Good in your Sugarbush! Wisconsin Maple News. Volume 36 Issue 1. Winter 2017.
- Bal, TL. 2017. Earthworms. Good in Your Garden, Not-So-Good in your Sugarbush! Winter 2017 Michigan Forester.
- Bal, TL. 2017. Social media guide for Foresters. The Michigan Forester. Number 86, Fall 2017.
- Bal, TL. 2017. Rev. of “Invasion Dynamics” By Hui, C., and Richardson, DM. CRC Press, Choice, September 2017 55:175.
- Bal, TL. 2017. Spring Conference Recap: Forests for Fish. The Michigan Forester. Number 85, Spring/Summer 2017.
- Bal, TL. 2016. Rev. of “In one yard: close to nature: we meet some of the wildlife in one urban yard in Portland, Oregon.” By Hatch, WA. CRC Press, Choice, 54:1197 November 2016.
- Bal, TL. 2016. Rev. of “Hubbard Brook: The Story of an Ecosystem.” By Holmes, RT and Likens, GE. Yale University Press, Choice, October, 2016.
- Bal, TL. 2016. Rev. of “Managing oak forests in the eastern United States.” By Keyser, PD, Fearer, T., and Harper, CA. CRC Press, Choice, 54:658, September 2016.
- Bal, TL. 2016. “What goes into a State Conference?” The Michigan Forester. Number 83, Summer 2016.
- Bal, TL. 2016. Rev. of “Plantations and protected areas: a global history of forest management.” By Bennett, BM. MIT, Choice, 53:5244, August 2016.
- Bal, TL, Richter, DL., Heyd, B., Mech, R., Lint, S. 2016. “Be on the lookout for HRD (Heterobasidion Root Disease) in Michigan and Northern Wisconsin!” Partners in Forestry Landowner Cooperative Newsletter. Conover, WI. February 2016.
- Bal, TL. 2015. Rev. of “Beyond the war on invasive species: a permaculture approach to ecosystem restoration.” By Orian, Tao. Chelsea Green, Choice, 53:1176, December 2015.

- Bal, TL. 2015. Rev. of “Multiaged silviculture: managing for complex forest stand structures.” By O’Hara, Kevin L. Oxford University Press, Choice, 52:5334, June 2015.
- Bal, TL, and Sharik, TL. 2015. An update on the Michigan Biomaterials Initiative. *The Michigan Forester*, Number 80, Fall/Winter 2014/2015.
- Bal, TL. 2015. Celebration marked the 60th anniversary of the Ford Center at Michigan Tech’s Research Forest. *The Michigan Forester*, Number 80, Fall/Winter 2014/2015.
- Bal, TL, Sharik, TL, Storer, AJ., Hohnholt, CA., Abbotts, HH. 2014. Michigan Biomaterials Initiative Steering Committee Meeting Summarization. March 28-29, 2014 Houghton, MI. *Report submitted to Michigan Technological University, School of Forest Resources and Environmental Science, and the Michigan Biomaterials Initiative List-Serve*. 5 pgs.
- Bal, TL and Sharik, TL. 2014. Literature pertaining to enrollment in Natural Resources Academic Programs with an Emphasis on Gender and Ethnic/Racial Diversity: A Bibliography. *Prepared for the North American Summit on Forest Science Education, May 7-9, 2014, at the University of California-Berkeley, Session Theme 8, Diversifying Student Demographics*. 13 pgs.
- Bal, TL, Sharik, TL, Storer, AJ, Hohnholt, CA, Abbotts, HH (eds.) 2013. Proceedings of the Conference on a Michigan Biomaterials Initiative: The Role of Education, Research, and Technology. School of Forest Resources and Environmental Science, Michigan Technological University. October 3-4, Traverse City, MI.
- Bal, TL and Storer AJ. 2013. Forest Health Monitoring Evaluation Project: Maple Decline. *In 2013 Forest Health Highlights*. Michigan Department of Natural Resources, pgs 33-34. www.michigan.gov/foresthealth
- Bal, TL and Richter, DL. 2013. Sapstreak of Sugar Maple, a native disease in our forests. *The Michigan Forester*, Number 78, Fall 2013.
- Bal, TL and Richter DL. 2013. Sapstreak of sugar maple, a native disease in our forests. *Partners in Forestry Landowner Cooperative Newsletter*. July 2013.
- Bal, TL, AJ Storer, A Berns, MF Jurgensen, and DL Richter. 2013. Evaluation of Sugar Maple Dieback in Upper Michigan. *Executive Summary submitted to GMO Renewable Resources*. 8 pgs.
- Bal, TL and Storer AJ. 2012. Maple Decline in the Western Upper Peninsula. *In 2012 Forest Health Highlights*. Michigan Department of Natural Resources, pg 30-31. www.michigan.gov/foresthealth
- Michigan Department of Natural Resources. 2011. Forest Health Highlights: Maple Decline increases in the western Upper Peninsula. page 22. http://fhm.fs.fed.us/fhh/fhh_11/MI_FHH_2011.pdf
- Bal, TL, AJ Storer, MF Jurgensen, DL Richter, and MC Amacher. 2011. Evaluation of Sugar Maple Dieback in Upper Michigan. *Summary Report submitted to the Michigan Department of Natural Resources and Environment*. 3 pgs.
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12. Lake Superior Magazine, 2017. *Nature's Candy*. Living Feature article. July 2017: 72-73
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7. MTU LODÉ, 2017. Women in Natural Resources. Kira Ferguson, Houghton, MI. Feb 16, 2017. mtulode.com/blog_post.php?p=791
6. Daily Mining Gazette. 2016. Fall Delay: warm temps slow change. Kurt Hauglie, Houghton, MI. October 6, 2016.
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4. The Great Lakes Echo. 2015. Earthworms rob forests of key nutrients; pave way for other invaders. Chris Symons. May 19, 2015. <http://greatlakesecho.org/2015/05/19/earthworms-rob-forests-of-key-nutrients-pave-way-for-other-invaders/#>

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PRESENTATIONS (presenter/speakers in bold)

Invited Talks (starred *)	50+
Presentations at Scientific Meetings	50+
Presentations to Communities (includes school groups, not all listed)	40+

ORAL PRESENTATIONS IN ACADEMIA/PROFESSIONAL MEETINGS

92. **Higdon**, Bal, Brzeski. 2023. The application of Silphids as an iDNA tool through genetic analysis. Entomological Society of America, National Harbor, Maryland, November 2023.
91. ***Zhu Ning** (moderator), **Kavanagh, Nagel, Ning, Bal, Stiffarm**. Successes, challenges, and opportunities in promoting diversity, equity, and inclusion. NAURFP organized panel. Society of American Foresters. Sacramento, CA October 24-28, 2023.
90. ***Bal**, Sharik, Ziegler, Meeks, Jalil. Update of enrollment trends in natural resources degree programs through Fall 2022. Society of American Foresters. Sacramento, CA October 24-28, 2023.
89. **Panella**, Myers, Webster, Hofmeister, Bal. Monitoring planting trials and nucleated seed orchards for restoration of beech bark disease impacted forests. Society of American Foresters. Sacramento, CA October 24-28, 2023.
88. ***Bal** with guests from Vice President for Research Development Office, Dixon, Atkinson. Safe and Inclusive Field Plans. Ecosystem Science Center Business Meeting. Michigan Tech. April 25, 2023.
87. **Higdon**, Bal, Brzski. iDNA from Silphid Beetles as a Novel Tool to Sample Mammals. Michigan Tech Graduate Research Colloquium. March 29, 2023.
86. Myers, Panella, **Bal**. Restoration activities in Two National Parks to Mitigate Beech Bark Disease. Great Lakes Science for National Parks Symposium, Ashland, WI. March 2023.
85. ***Halvorsen** (moderator). **Bal, Rhodes, Bowman**. Vice-President for Research- Research Series: Safe and Inclusive Off-campus/Fieldwork Research Project Planning. Panel. March 21, 2023
84. ***Butterwort**, Bal, Reed. Identifying the high-risk period for sap beetle-vectored oak wilt in Canada. Invasive Species Centre, Sault Ste Marie, Ontario. February 8, 2023.
83. ***Bal, Brady, Anderson, Lane-Clark**. Stressors of Maple: Dieback and Mortality. Pennsylvania State University Extension Webinar, January 25, 2023. (400 registrants, over 250 attendees, managed over ~1,360,000 acres).
82. *The Food and Agricultural Education Information System (FAEIS), NIFA webinar. Wendy **Fink** (APLU), Terry **Sharik** (MTU), **Tara Bal** (MTU) invited panelists. January 2023.
81. *Unlikely Collaborators: Remarkable Stories from the Research Kingdom. Michigan Tech Research Day. Panelist. January 2023.

80. ***Bal**, Kim, Nagel and NAUFRP Diversity Committee. 2022. (Invited Moderator). Diversity Forum and Discussion. National Association of University Forest Research Programs Meeting, Baltimore, Maryland. September 20 2022.
79. ***Reed SE**, Sweeney J, Bal T, Hughes C, Ross F, Llewellyn J, Webster M. 2022. Refining guidelines for managing overland spread of oak wilt by Nitidulidae (Coleoptera) beetles in Canada. IUFRO Lisbon 2022. The IUFRO All Division 7 (Forest Health, Pathology and Entomology) 2022 Conference. (International Union of Forest Research Organizations) Sept 6-9, Portugal. Session Invitation by Jon Sweeney (Entomologists and Pathologists working together).
78. **Bal**, Tara, Reed, Sharon, Arkwright, Michael, Sweeney, Jon, Hughes, Cory, Ross, Fiona. 2022. Northern Oak Wilt? Examining Vectors and Spread Risk across Upper Michigan and Canada. Entomological Society of America, Vancouver, British Columbia, November 2022.
77. **Schneider**, Bal, Brzeski. 2022. Establishing Silphids as an iDNA tool: diet analysis through genetics. Entomological Society of America, Vancouver, British Columbia, November 2022.
76. ***Bal**, Reed, Arkwright, Butterworth. 2022. Will Oak Wilt Go Further North? Examining Vectors and Spread Risk across Upper Michigan and Canada. North Central Forest Pest Workshop, Grand Rapids, MN Sept 12-15, 2022.
75. ***Brady**, Anderson, Burton, Webster, Bal*. 2022. Recent sugar maple dieback trends in the Upper Great Lakes Region. North Central Forest Pest Workshop, Grand Rapids, MN Sept 12-15, 2022.
74. **Katherine E. Higdon**, Tara L. Bal, Kristin E. Brzeski, and Valoree S. Gagnon. 2022. Bridging Knowledge Systems Through Beetle Community Research and Indigenous Knowledge. The Wildlife Society Conference. Spokane, Washington. Nov. 6-10, 2022.
73. ***Bal** (Invited Moderator), Marchel, and panel. Young Professional Panel Session (1.5hr). Society of American Foresters National Conference, Baltimore, Maryland, September 2022.
72. **Bal**, Sharik, Ziegler, Jalil, Meeks. 2022. Enrollment update from natural resources degree programs through the pandemic: How has it impacted students? Society of American Foresters National Conference, Baltimore, Maryland, September 2022.
71. **Brady**, Anderson, Burton, Webster, Bal. 2022. Collaborative Management for Sugar Maple Dieback in the Upper Great Lakes. Society of American Foresters National Conference, Baltimore, Maryland, September 2022.
70. **Bal, T.**, Sharik., T. Ziegler, P, Jalil, D., Meeks, A. 2022. Update on enrollment trends in natural resources degree programs through the pandemic. 14th Biennial Conference of University Education in Natural Resources. University of Nebraska-Lincoln. March 23-24, 2022.
69. ***Krause, E.**, Bal, T. 2022. Outside with Pride: Growing in New Directions. Keynote. Wild Rivers Conservancy, St. Croix Conference, Wisconsin March 24, 2022.
68. ***Sharik, T.**, Bal., T. Ziegler, P, Jalil, D., Meeks, A. 2021. Enrollment trends in natural resources and environment degree programs in the U.S. with an emphasis on diversity. Michigan Botanical Club, Huron Valley Chapter February 21, 2022.
67. ***Sharik, T.**, Bal., T. Ziegler, P, Jalil, D., Meeks, A. 2021. Enrollment trends in natural resources degree programs in the U.S. with an emphasis on diversity. University of Alberta, Edmonton, endowed Forest Industry Lecture. November 19, 2021.
66. *T. Bal¹, **S. Reed**², J. Sweeney³, C. Hughes³, F. Ross⁴, and J. Llewellyn⁵. Northern Oak Wilt Modeling - Predicting Vector Timing and Risk of Spread with Climate Change. ¹ MTU Houghton, Michigan; ² Ontario Ministry of Natural Resources, Sault Ste. Marie, Ontario; ³Natural Resources Canada, Canadian Forest Service, Atlantic Forest Center, Fredericton, New Brunswick; ⁴ Manitoba Conservation, Forestry Branch, Winnipeg, Manitoba; ⁵

- Ministry of Agriculture, Food and Rural Affairs, Economic Development Division, Guelph, Ontario. North Central Forest Pest Workshop. Nov. 10, 2021.
65. ***Bal, T.** 2021. Earthworm impacts as exotic invasive species. Ohio Community Wildlife Cooperative Conference. Nov. 8, 2021.
 64. **Bal, T.**, Dickinson, Y., Storer, A. Increasing Awareness and Integration of Exotic Earthworm Impacts into Forest Management Decisions. Northern Hardwoods Conference, Green Bay, WI June 16-18, 2021.
 63. **Y. Dickinson**, T. Bal, C. Bartlick, K. Brzeski, R.E. Froese, S. Hupperts, M.C. Kelly, J.M. Schmierer, C.R. Webster, and J.D. Wolfe. Introducing the Northern Hardwood Silviculture Experiment to Enhance Diversity (NHSEED). Northern Hardwoods Conference, Green Bay, WI June 16-18, 2021.
 62. **Bal, T.**, Katherine Schnieder, Kristin Brzeski 2021. Novel applications of iDNA tool for measuring small mammal community biodiversity via Silphid beetles. Northern Hardwoods Conference, Green Bay, WI June 16-18, 2021.
 61. ***Bal, T.** Native Plants and Native Insects. 4th Annual Keweenaw Native Plant Symposium, Keweenaw Garden Club, Keweenaw Land Trust. *April 22, 2021.*
<https://keweenaw.wildones.org/2021-keweenaw-native-plant-symposium/>
 60. ***Bal.** Got worms? That might be a problem! Investigating Impacts of Non-Native Earthworms in Hardwood Forests. Ohio Woodland, Water, and Wildlife Conference. 1.5-hour webinar, 191 attendees. The Ohio State University Extension Program. *March 3, 2021.*
 59. ***Bal.** (panel member). SAF Diversity Scholar Forum. Society of American Foresters, Diversity Scholar Program for National Convention. Nov. 20, 2020.
 58. **Bal**, Dickinson, Hyslop, Froese, Jarvi, Schmierer, Webster, and Wolfe. 2020. Getting lost in the woods, emerging a professional: Field-based learning experiences bridge the forestry and natural resources professions. Society of American Foresters Conference, Providence, Rhode Island, October 28-November 1, 2020.
 57. **Sharik**, Bal, Ziegler, Jalil, Meeks. 2020. Enrollment trends in natural resources degree programs in the U.S. with an emphasis on Diversity. Wisconsin Society of American Foresters. (virtual) October 14, 2020.
 56. ***Bal, T.** (panel member). Challenges and Success during the Covid Pandemic. Michigan Society of American Foresters. October 1, 2020.
 55. ***Bal, T.** Forest Health in the UP. Keynote Speaker. Michigan Society of American Foresters Conference, Grayling, MI. June 10, 2020.
 54. **Sharik**, Bal, Rouleau, Wellstead. 2020. Student perspectives on enrolling in forestry and related natural resources degree programs at NAUFRP institutions in the U.S. 13th Biennial Conference of University Education in Natural Resources. University of Montana. March 12-14, 2020.
 53. **Bal**, Sharik, Ziegler, Jalil, Meeks. 2020. Comparative analysis of enrollment trends in natural resources academic programs in the US based on IPEDS and USDA-FAEIS data. 13th Biennial Conference of University Education in Natural Resources. University of Montana. March 12-14, 2020. **Sharik presented due to COVID-19**
 52. **Bal**, Dickinson, Hyslop, Froese, Jarvi, Schmierer, Webster, and Wolfe. 2020. Immersive, field-based learning experiences bridge the natural resources professions: Getting lost in the woods to emerge a professional. 13th Biennial Conference of University Education in Natural Resources. University of Montana. March 12-14, 2020. **Froese presented due to COVID-19**

51. ***Bal**. 2020. Wood Flooring and Mold. Maple Flooring Manufacturers Association Conference. San Juan, Puerto Rico, February 27-29, 2020.
50. ***Sharik, T.**, Bal, T., Ziegler, P, Jalil, D., Meeks, A. 2020. Enrollment trends in natural resources degree programs in the U.S. with an emphasis on diversity. Chequamegon-Nicolet National Forest, U.S. Forest Service, Rhinelander, WI. January 30, 2020.
49. ***Sharik, T.**, Bal, T., Ziegler, P, Jalil, D., Meeks, A. 2019. Enrollment trends in natural resources degree programs in the U.S. with an emphasis on diversity. University of Minnesota Department of Forest Resources. December 9, 2019.
48. ***Sharik, T.**, Bal, T. 2019. Forest Sector Employment, Green Jobs, and Forest Education Part 2: Forest Sector Employment and Green Jobs in the United States. IUFRO- EFI- IFSA Report Workshop, Bonn, Germany. November 19, 2019.
47. ***Sharik, T.**, Bal, T., 2019. Forest Sector Employment, Green Jobs, and Forest Education Part 1: Higher and Technical Forestry Education in the United States. IUFRO- EFI- IFSA Report Workshop, Bonn, Germany. November 18, 2019.
46. **Sharik, T.**, Bal, T., 2019 Forestry Enrollment Trends Update. HSD Professional Development Session. Society of American Foresters National Conference, Louisville, Kentucky. October 30-November 3, 2019. Journal of Forestry 118(2): 210-211, 2020.
45. **Sharik, T.**, Bal, T., ^AZiegler, P., ^AJalil, D., and ^AMeeks, A. (^AUSDA FAEIS) 2019. Enrollment Trends in Natural Resources Degree Programs in the U.S. with an Emphasis on Diversity. Society of American Foresters National Conference, Louisville, Kentucky. October 30-November 3 (Nov. 2), 2019. Journal of Forestry 118(2): 210-211, 2020.
44. ***Bal, T.** Impacts of Invasive Earthworms on Northern Hardwood Forests. Michigan Association of Conservation Districts Convention. Bellaire, Michigan October 30, 2019.
43. **Rekola, M.** Abbas, D., Bal, T., Rodriguez-Pineros, Sharik, T. 2019. Global Outlook on Forest Education: GOFE- Preliminary Results. IUFRO World Congress. September 29, 2019. Curitiba, Brazil.
42. **Myers, A.**, Bal, T., Leutscher, B., Storer, A., Dickinson, Y. 2019. Development of a Restoration Planting Strategy to Mitigate Beech Bark Disease at Two National Lakeshores in Northern Michigan. North Central Forest Pest Workshop. Lisle, IL., September 27 2019.
41. **Myers, AL**, TL Bal, AJ Storer, B Leutscher, YL Dickinson. Investigating the driving forces in severity of beech bark disease to guide restoration efforts in northern Michigan. 2019. Ecological Society of America Annual Meeting, Louisville, KY. August 11, 2019.
40. ***Bal, T.** Update on Forest Health at Michigan Tech. 2019 Spring Interagency Invasive Species Committee Meeting. Okemos, MI, April 23, 2019.
39. ***Bal, T.** Spruce Beer, White Pine Tea, and Sugar from Trees: Regional Ethnobotany. Guest Lecture in FW 2160 Botany. April 22, 2019.
38. ***Bal, T.** Forest Impacts & Invasive Earthworms. Forest Health Meeting, Ohio Department of Natural Resources and Division of Forestry. Jackson, Ohio. April 2-3, 2019.
37. **Bal, T**, Sharik T, Wellstead A, Rouleau, M. Major Hesitancy Factors for Students Enrolling in Forestry or Related Natural Resource Programs in the U.S. Society of American Foresters National Convention, Portland, Oregon, October 2-7, 2018. Journal of Forestry 117(1): S86-S87, Abstract #548, 2019.
36. **Bal, T** and Sharik T. Natural Resources Professional Societies' Visual Portrayal Online: Are They Representative? Society of American Foresters National Convention, Portland, Oregon, October 2-7, 2018. Journal of Forestry 117(1): S86 Abstract #476, 2019.

35. ***Sharik, T** and Bal, T. Enrollment in Natural Resources Degree Programs in the U.S.: Trends, Drivers, and Implications for the Future of the Natural Resources Profession. Forest Products Society Conference, Madison, Wisconsin, June 11-13, 2018.
34. ***Bal, T**. Forest Regeneration Issues – Invasive earthworms. 14th Annual Sustainable Forestry Conference, Florence, Wisconsin. April 19, 2018.
33. ***Sharik, T** and Bal, T. Enrollment in Natural Resources Degree Programs in the U.S.: Trends, Drivers, and Implications for the Future of the Natural Resources Profession. Michigan Society of American Foresters and Canadian Institute of Forestry Joint Conference, Sault Ste Marie, Michigan and Ontario, April 12-13, 2018.
32. **Rekola, M**, D Abbas, T Bal, J Burns, M Lacker, C Paulus, S Rodríguez, T Sharik. 2018. Global Outlook on Forest Education (GOFE): Competency survey on recent graduates. 5th Meeting of Asia Pacific Forestry Education Coordination Mechanism: Globalization of Higher Forestry Education in a Digital Era, March 28, 2018, Beijing, China.
31. **Sharik, T**, A Storer, T Bal. 2018. Education as a driver of change in U.S. forests and the forest sector. 5th Meeting of Asia Pacific Forestry Education Coordination Mechanism: Globalization of Higher Forestry Education in a Digital Era, March 28, 2018, Beijing, China.
30. **Storer, A**, T Sharik, T Bal. 2018. Accreditation and assessment of student learning outcomes in a US forestry education program. 5th Meeting of Asia Pacific Forestry Education Coordination Mechanism: Globalization of Higher Forestry Education in a Digital Era, March 28, 2018, Beijing, China.
29. **Storer, A**, T Sharik, T Bal. The role of accreditation in natural resource programs. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018.
28. ***Sharik, T**, A Storer, T Bal, D Abbas. Education as a driver of change in U.S. Forests and the Forest Sector Change in US Forests and The Forest Sector. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018. *
27. ***Sharik, T**, and T. Bal. Enrollment trends in natural resources and environmental degree programs in the US with emphasis on Diversity: an Update. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018. *
26. **Bal, T**, and T. Sharik. Inter-institutional variation in forestry and related natural resources programs in the US in relation to diversity perception on program websites. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018.
25. **Bal, T**. Engaging students online: development of a non-traditional online course in maple syrup management and culture increases interdisciplinary undergraduate enrollment in a natural resource academic program. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018.
24. **Bal, T**, Sharik, T, Storer, A, Abbas, D, Rekola, M. Forest education competency analysis of recent graduates: interview results from the U.S. participation in the Global Outlook on Forest Education Project. The 12th Biennial Conference on University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018.
23. **Rekola, M**, Abbas, D, Bal, T, Burns, J, Lackner, M, Rodriguez, S, Sharik, T. Global Outlook on Forest Education (GOFE) – preliminary results. The 12th Biennial Conference on

- University Education in Natural Resources. Stephan F Austin State University, Nacogdoches, TX, March 8-10, 2018.
22. **Sharik, T** and Bal, T. 2018. Undergraduate enrollment in Natural Resources Programs in the United States: Trends, Drivers, and Implications for the Future of Natural Resource Professions. February 13-14, Minnesota Society of American Foresters Meeting, Grand Rapids, MN*
 21. ***Bal, T.** 2018. Sugar from Trees: the history, lore, and actual mechanics behind maple syrup. International Forestry Student Association's (IFSA) Canadian American Regional Meeting (CARM). February 6. Ford Forestry Center, Alberta, MI*
 20. ***Sharik, T** and Bal, T. 2018. Undergraduate enrollment trends in natural resources and environmental degree programs in the U.S. with an emphasis on diversity. January 2018. Traverse City, MI. Michigan Department of Natural Resources Joint Forestry and Wildlife Workshop. *
 19. ***Rekola M,** Abbas D, Bal T, Burns J, Lackner M, Paulus C, Rodríguez-Pineros S, Sharik T, Storer A. Behavioral Event Interviews (BEI) related to skills and capabilities needed in current forest sector - results from the Global Outlook on Forest Education. IUFRO. Freiburg, Germany. September 2017.*
 18. ***Bal, TL.** Development of Online Maple Syrup Management & Culture Class. Intertribal Maple Syrup Producers Workshop & Gichi Manidoo Giiziz Traditional PowWow. Sponsored by Fond du Lac Tribal and Community College. Cloquet, MI. January 2017.*
 17. ***Sharik TL** and **Bal, TL.** Inter-institutional Variation in Minority Enrollment in Undergraduate Natural Resources Programs in the US in relation to Web-Based Recruitment Strategies. Society of American Foresters National Conference, Madison, WI. November 2016.*
 16. ***Bal, TL.** Investigations of maple dieback and decline in Michigan. Live Webinar. Utah State Extension Service. April 2016.*
 15. **Storer, AJ,** Bal, TL, Hyslop, MD. Integrated Management of Emerald Ash Borer. Entomological Society of America, Annual Meeting, Portland, OR November 2014.
 14. **Bal, TL.** Severity of Sugar Maple Crown Dieback in Relation to Winter Climate Variables, Soil Nutrients, and the Presence of Exotic Earthworms. IUFRO XXIV World Congress Incubator Session, Salt Lake City, UT October 2014.
 13. ***Bal, TL.** Sugar Maple Regeneration and Decline. Michigan Chapter of the Society of American Foresters, Escanaba, MI March 2014.*
 12. ***Bal, TL,** AJ Storer, MF Jurgensen, DL Richter, MC Amacher. Sugar Maple Decline in the Great Lakes Region. Forest Service, Forest Health Conference Call, Coordinated by Paul Berang and Carrie Sweeney, USDA Forest Service, March, 2014.
 11. **Bal, TL,** AJ Storer, MF Jurgensen, DL Richter, MC Amacher. Sugar Maple Dieback in the Great Lakes Region. Society of American Foresters National Conference, Charleston, SC, October 2013.
 10. **Bal, TL.** Forest Health Detectives: an easy way to incorporate vigor into forest lesson plans. Sugar Maple Dieback in the Great Lakes Region. Society of American Foresters National Conference, Charleston, SC, October 2013.
 9. ***Bal, TL,** AJ Storer, K Hietala, R Griesmer-Zakhar. Maple Decline and other northern hardwood insect and disease issues. Wisconsin Chapter of the Society of American Foresters, Minoqua, WI October 2013.*

8. ***Bal, TL**, AJ Storer, A Berns, MF Jurgensen, DL Richter, MC Amacher. Evaluation of sugar maple dieback in the Upper Great Lakes Region. North Central Forest Pest Workshop, Hartland, MI October 2011. *
7. ***Bal, TL**, AJ Storer, MF Jurgensen, DL Richter, MC Amacher. Evaluation of sugar maple dieback in the Great Lakes Region. Michigan Chapter of Society of American Foresters Meeting, St. Ignace, MI March, 2011. michigansaf.org/Tours/12NoName/03-Bal.pdf*
6. **Storer, AJ**, I Fraser, TL Eberhart, JM Marshall, LM Nagel, JA Metzger and VC Mastro. 2007. Components of a management program for the invasive emerald ash borer, *Agrilus planipennis* (Coleoptera: Buprestidae), in North America. IUFRO Forest Health Meeting, Vienna, Austria, 2007
5. **Eberhart, TL**, AJ Storer, and LM Nagel. Living With Emerald Ash Borer: Implementation of Ash Reduction Models to Reduce Population Potential. Entomological Society of America National Convention, Indianapolis, IN December 2006.
4. ***Eberhart, TL**, AJ Storer, and LM Nagel. Living with Emerald Ash Borer: Development and Implementation of an ash phloem reduction model to reduce population potential of emerald ash borer. Emerald Ash Borer – Asian Longhorned Beetle Joint Research Update, Cincinnati, OH, October 2006.*
3. Storer, AJ, **TL Eberhart**, and LM Nagel. Modeling the Relationship of Emerald Ash Borer and Ash Phloem, With Management Implications. North American Forest Insect Work Conference, Asheville, NC May 2006.
2. **Eberhart, TL**, AJ Storer, and LM Nagel. Living With Emerald Ash Borer: Modeling Ash Phloem Removal. Western Great Lakes Research Conference, Ashland, WI, March 2006.
1. *Storer AJ, **Eberhart, TL** and LM Nagel. 2005. Living with emerald ash borer: Modeling ash phloem removal from forests. 3rd Annual Emerald Ash Borer Research Meeting, September 26-27, 2005, Pittsburg, PA.*

PRESENTATIONS TO OTHER GROUPS (all Invited)

18. Honey Spinning. October 12, 2022. Houghton Elementary School Visual Arts Program.
17. Wood Protection Group Overview. Finnish Delegations Visit to Michigan Technological University. May 17, 2022.
16. “An Inordinate Fondness for Beetles”: An Intro to Beetle Diversity, Life History, and Role as Beneficial Insects in our Gardens.” Keweenaw Wild Ones. December 7, 2021.
15. Forest Health for the classroom. Lake Superior Stewardship Initiative Teacher Training July 14, 2021, Chassell Elementary School.
14. Beaudoin, S., and Bal, T (academic sponsor, co-author). Public Perceptions of wild berry crops and an invasive species pest threat in rural Michigan. January 25, 2020. Junior Science & Humanities Symposium, University of Wisconsin La Crosse, Tomahawk, WI.
13. Spotted Wing Drosophila. Iron County Conservation District, Baraga, MI. October 9, 2019.
12. Forest Health Exotics on Our Radar. Iron County Conservation District, Iron River, MI. September 20, 2019.
11. Spotlight on Spotted Wing Drosophila. Ontonagon Conservation District, Algoma Acres, Mass City, MI. August 28, 2019.
10. Maple Syrup and Sugaring Activities. Book readings, demonstrations, and taste testing with K-12 groups, e.g. Houghton Elementary, Little Huskies Preschool, KBIC Youth group. 2015-current year.
9. Insect Lesson Ideas. Engaging students in Authentic Science Research Teacher Institute. Michigan Tech. June 2016
8. Forest Health Measurements. Natural Resource Career Pathways for Detroit High School Students in the UP and Michigan Tech. June 2016

7. Insect Importance. Houghton Middle School Engineering and Science Explorations Class, 2013, 2014.
6. Forest Health Ideas in the Michigan Class Room. Michigan Association of Foresters Conference, Michigan Technological University. 2012.
5. Forest Health: Insects and Disease. Michigan Technological University and Western Upper Peninsula Center for Science, Mathematics and Environmental Sciences, Forest Resources and Environmental Sciences Teacher Institute. 2011.
4. Entomology for the Class Room. Michigan Technological University and Western Upper Peninsula Center for Science, Mathematics and Environmental Sciences, Forest Resources and Environmental Sciences Teacher Institute. 2010.
3. Entomology! A scientist in the classroom! Visit to Calumet Kindergarten class, 2009, 2010.
2. Wild and Buggy! An overview of Michigan's Important Forest Insects. 2009. Ottawa National Forest, Forest Service, Iron Wood, MI.
1. Insect-tigations! and other Natural Resource based presentations. Conducted during school field trips and Family Science Night Community Presentations, Western Upper Peninsula Center for Science, Mathematics, and Environmental Science. All Western Upper Peninsula K-12 Schools. Since 2008. (more than 25 presentations)

POSTERS

57. **Hidgon**, Bal. 2023. Communicating Silphidae relationships through visual and abstract representation. Entomological Society of America, National Harbor, Maryland. November 2023.
56. **Bershing**, Higdon, Bal. 2023. Moth community diversity across varying silvicultural treatments post 5 years harvesting. Ecosystem Science Center Symposium, Michigan Technological University. March 2023.
55. **Hidgon**, Langston, Gagnon, Bal. 2023. A Visual and Abstract Representation of the Relationships of the Family Silphidae. Ecosystem Science Center, Michigan Technological University. March 2023.
54. **Bershing**, Higdon, Bal. 2023. Moth community distribution across varying silvicultural treatments post 5 years harvesting. Undergraduate Research & Scholarship Symposium, Michigan Technological University. March 2023. **Won Excellence in Design and Format**
53. **Stone**, Dolinski, Webster, Bal, Resh. 2023. Spray-Based Deployment of a Fungal Biocontrol on Invasive Buckthorn Sprouts. Undergraduate Research & Scholarship Symposium, Michigan Technological University. March 2023.
52. **Anderson**, Bal. 2022. Overview of diminutive conspicuous sugar maple leaf and twig pests in the Great Lakes region. North Central Forest Pest Workshop, Minnesota, September 2022.
51. **Myers**, Dickinson, Storer, Bal. 2022. Underplanting trial of American beech in northern hardwood forests. North Central Forest Pest Workshop, Minnesota, September 2022.
50. **Stone**, Resh, Bal. 2022. Testing Spray-Based Deployment of a Native Fungus on Invasive Buckthorn Sprouts. Upper Midwest Invasive Species Conference. Green Bay, Wisconsin. October 25-27, 2022.
49. Bal, **Arkwright**, Reed. 2022. Oak Wilt even further north? Examining vectors and potential spread risk across Upper Michigan and Canada. Society of American Foresters National Conference. September 20-24, 2022.
48. **Schneider**, Gagnon, Bal. 2022. Bridging knowledge systems in insect research: Exploring human-insect relationships through traditional ecological knowledge and beetle research. Entomological Society of America, Vancouver, British Columbia, November 2022.
47. **Myers**, Dickinson, Storer, Bal. 2022. Establishing protocol for the underplanting of grafted American beech. Society of American National Conference, Baltimore MD, September 20-24, 2022.

46. **Lane-Clark**, Bal, Gagnon. 2022. Perceptions, purpose, and pieces out of place: Deconstructing discourse on non-endemic earthworms. Natural Areas Association Conference, Duluth, MN September 2022.
45. **Stone**, Dolinski, Resh, Webster, Bal. 2022. Natural Solutions: Development and deployment of a local polypore as a myco-biocontrol on invasive buckthorn sprouts. Natural Areas Association Conference, Duluth, MN September 2022. **Won 3rd Place Poster Overall**
44. **Schneider (Higdon)**, Gagnon, Bal. 2022 Bridging western science and traditional ecological knowledge in beetle research: exploring socio-ecological relationships between humans and beetle families. Natural Areas Association Conference, Duluth, MN September 2022.
43. **Anderson**, Brady, Webster, Jarvi, Bal. 2022. Implications of forest health risk factors: geospatial analysis of Sugar Maple decline in hardwood forests of the Lake Superior Region. Natural Areas Association Conference, Duluth, MN September 2022.
42. **Anderson**, Brady, Jarvi, Webster, Bal. 2022. Responses of herbaceous plant community structure to sugar maple dieback and associated earthworm invasion: a case-study from the Upper Great Lakes Region. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022
41. **Stone**, Dolinski, Webster, Resh, Bal. 2022. Developing a Commercially-Viable Native Biocontrol Application for Invasive Buckthorn Management. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022. ***Undergraduate Merit Award Winner.***
40. **Brady**, Anderson, Webster, Burton, Bal. 2022. Decadal Reevaluation of sugar maple dieback etiology across the Upper Great Lakes Region. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022.
39. **Arkwright**, Bal, Reed. 2022. Nitidulids north of oak wilt: examining vectors and potential spread risk across Michigan's Upper Peninsula. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022.
38. **Lane-Clark**, Bal, Ong. 2022. Bioturbation by non-endemic earthworms as a potential catalyst for changes in maple sap chemistry in northern hardwood forests. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022.
37. **Schneider**, Bal, Brzeski. 2022. Potential for non-invasive small mammal and broader biodiversity sampling: establishing Silphids in the iDNA toolbox. Ecosystem Science Center Research Forum. Michigan Technological University. April 2022.
36. **Schneider**, Bal, Brzeski. 2022. Revealing Silphid Stomach Contents Using Novel iDNA Methods. Michigan Technological University, Graduate Student Research Colloquium, March 2022.
35. **Brady**, Anderson, Bal. 2022. Quantifying sugar maple dieback phenomena in the Upper Great Lakes Region. Michigan Technological University, Graduate Student Research Colloquium March 2022.
34. **Schneider**, Bal, Brzeski. 2021. Potential for Broad Biodiversity of Vertebrate Species Detection Using iDNA Analysis of Carrion Beetle Diets. The Wildlife Society (virtual) November 1-5, 2021. *****Awarded Best Student Poster Presentation**
33. **Myers**, Dickinson, Storer, Bal. 2021. Reflections on Restoration: The Importance of Human Connections, Networking, and Knowledge Transfer. Ecological Society of America Annual Meeting. (virtual) August 2-6, 2021.
32. **Schneider**, Bal, Brzeski. 2021. Novel use of Silphid stomach contents for iDNA Methods. Ecosystem Science Center Forum (virtual, 3 minute lightning talk), Michigan Tech, April 16, 2021.
31. **Grinstead**, Bal. 2021. Revisiting sugar maple decline in the Great Lakes region after a decade: development of decision making tools. Ecosystem Science Center Forum (virtual, 3 minute lightning talk), Michigan Tech, April 16, 2021.

30. **Schneider**, Bal, Brzeski. 2021. Revealing Silphid Stomach Contents Using Novel iDNA Methods. Michigan Tech Graduate Student Colloquium. April 1-2, 2021. *Won 2nd Place.*
29. **Ela**, Bal, Xie, Ong. 2020. Lignin-Propiconazole Nanocapsules are an Effective Bio-based Wood Preservative. American Institute of Chemical Engineers Conference (virtual) November 17, 2020.
28. **Myers**, Dickinson, Storer, Bal. 2020. Morphological features as predictors of survival of excavated wildling and nursery-raised American beech seedlings. Michigan Society of American Foresters Convention (virtual), October 2020.
27. **Myers**, Dickinson, Storer, Bal. 2020. Excavation and Care of Wildling American Beech (*Fagus grandifolia* Ehrh.) Seedlings. Society of American Foresters National Convention (virtual), October 2020.
26. **Bal**, Dickinson, Hyslop, Froese, Jarvi, Schmierer, Webster, and Wolfe. 2020. Getting lost in the woods to emerge a professional: An immersive, field-based learning experience which bridges the natural resources professions. Upper Peninsula Teaching and Learning Conference. Lake Superior State University, Sault Ste. Marie. May 8, 2020.*cancelled covid-19*
25. **Beaudoin** and Bal. 2020. Public Perceptions of wild berry crops and pest threat of Spotted Wing Drosophila in rural Michigan. Junior High School Science and Humanities Symposium, Washington, D.C April 2020.
24. **Schnieder**, Bal, Brzeski. 2020. Silphid beetles as novel iDNA tool for measuring small mammal communities. Ecosystem Science Center Symposium, SURF Symposium, and Undergraduate Research Symposium
23. **Picard** and Bal. 2019. Taphole Maple Lumber: Exploratory Survey of Market Potential in Michigan. Michigan Forest Bioeconomy Conference. Grand Rapids, Michigan February 2019.
22. **Myers**, Dickinson, Bal, Storer, Leutcher. Regeneration Response to Beech Bark Disease in an Affected Forest in Pictured Rocks National Lakeshore, Munising, MI. Society of American Foresters National Conference, Portland, Oregon 2018.
21. **Bal**. Development and Success of a Blended, Online Course in Maple Syrup Management & Culture. Society of American Foresters National Conference. Madison, WI. November 2016. *Journal of Forestry* 115(2): S107.
20. **Bal**, Richter, Heyd, Mech, Lint. The Search for Heterobasidion Rot Root in Michigan. North Central Forest Pest Workshop. Gaylord, MI. September 2016.
19. **Bal**. Development and Success of a Blended Learning, Online Course in Maple Syrup Management and Culture. # 346, Society of American Foresters National Conference, Madison, WI October 2016.
18. **Cladas**, Bal, Storer. 2015. Is *Agrilus planipennis* Detection Success at Low Densities Associated with Distance from Roads? Ecosystem Science Center Research Forum, Michigan Technological University, School of Forest Resources and Environmental Science. March.
17. Cladas, Bal, **Storer**. Is Detection of Emerald Ash Borer at Low Population Density Influenced by Distance to Roads? USDA Interagency Research Forum on Invasive Species, Annapolis, MD January 2015.
16. **Bal**, Storer, Jurgensen, Richter, Amacher. Assessment of Sugar maple dieback across the Great Lakes Region. Forest Health and Monitoring Workgroup Meeting, Tuscon AZ April, 2012
15. **Bal**, Storer, Jurgensen, Richter, Amacher. Sugar maple dieback in the Great Lakes Region. North American Forest Insect Work Conference, Portland, OR May, 2011.
14. **Windmuller**, Storer, Nagel, Bal. Using the Ash Phloem Model in Real Stands. USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2010.

13. Bal, **Storer**, Nagel. Ash Phloem Reduction Models Vary Among Species and Growing Conditions. USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2009.
12. **Bal**, Storer, Richter, Lilleskov. A Sticky Situation: Sugar Maple Dieback across the Landscape. Michigan Technological University, Graduate Student Council Research Colloquium, April 2009.
11. **Eberhart**, Storer. Living with Emerald Ash Borer: Understanding Which Trees are Attacked First. Michigan Tech Ecosystem Science Center Graduate Research Forum, February 2007.
10. **Eberhart**, and Storer. Living with emerald ash borer: Larger, older trees attacked first. Annual Meeting of the Entomological Society of America, Dec. 9-12, 2007, San Diego, CA.
9. **Eberhart**, Storer, Nagel. Modeling ash phloem removal to reduce the density of emerald ash borer, *Agrilus planipennis*. Michigan Technological University, Graduate Student Council Research Session, February 2006.
8. **Eberhart**, Storer, Nagel. Modeling ash phloem removal to reduce the density of emerald ash borer, *Agrilus planipennis*. Michigan Technological University, Ecosystem Science Center Forum, February 2006.
7. **Eberhart**, Storer, Nagel. Modeling ash phloem removal to reduce the density of emerald ash borer, *Agrilus planipennis*. Western Great Lakes Research Conference, Ashland, WI March 2006.
6. **Eberhart**, Storer, Nagel. Living with Emerald Ash Borer: Modeling Phloem Reduction to Reduce Resource Availability. North American Forest Insect Work Conference, Asheville, NC May 2006.
5. **Eberhart**, Storer, Nagel. Living with Emerald Ash Borer: Modeling Phloem Reduction to Reduce Resource Availability. North Central Forest Pest Workshop, Pellston, MI October 2006.
4. **Eberhart**, Storer, Nagel. Management of Emerald Ash Borer: Reducing Resource Availability to Lower Pest Populations. Society of American Foresters National Convention, Pittsburgh, PA, October 2006.
3. **Eberhart**, Storer, Nagel. Modeling phloem removal from ash stands to reduce the density of emerald ash borer, *Agrilus planipennis*. North Central Forest Pest Workshop, LaCrosse, WI, September 2005.
2. **Eberhart**, Storer, Nagel. Modeling phloem removal from forests containing ash to reduce the population potential of emerald ash borer, *Agrilus planipennis*. Entomological Society of America National Convention, Fort Lauderdale, FL November 2005.
1. **Eberhart**, Storer, Nagel. Modeling phloem removal from ash stands to reduce the density of emerald ash borer, *Agrilus planipennis*. Society of American Foresters National Convention, Fort Worth, TX October 2005.

PROFESSIONAL SERVICE

Boards (elected or *invited)

Michigan Forest Association Board of Directors*	2022-2024
Society of American Foresters Board of Directors	2020-2022
Internal Evaluation & Advisory Board, ADVANCE at Michigan Tech, NSF*	2020-2022

Michigan Technological University

Women in the Academy, Co-Chair	2023-current
Leading Scholar Faculty Host, Office of the Vice President	Spring 2023
Ecosystem Science Center, Student Research Grant Reviewer	Spring 2023

Research Day Panelist	Spring 2023
Ecosystem Science Center, Strategic Planning Group	Summer 2022
Ecosystem Science Center Research Grants, Graduate and Undergraduate	Spring 2022
Ecosystem Science Center Forum, Faculty judge	Spring 2022
Summer Undergraduate Research Fellowship Reviewer	2022
Ecosystem Science Center Forum, Faculty judge	Spring 2021
Professional Masters Working Group Ad Hoc Committee by Provost	Spring 2021
Sustainable and Resilient Communities Social Network and Research Collaborative (SRC-Squared)	Spring 2021
Internal Evaluation and Advisory Board, NSF ADVANCE	Dec 2020- current
Research Excellence Fund Proposal Reviewer	2020
Early Career Mentorship Committee, Mentee position	2020-2021
Summer Undergraduate Research Fellowship Reviewer	2020
MTU STEM High School Intern Faculty Host, SYP, 2 students	2019
Gen Ed Council for Assessment: Goal 3, Global Literacy Assessor	2019
Facilitator, Interdisciplinary Berry Working Group, Research Development	2019-current
Facilitator, Navigating D.C. Faculty Trip, Research Development Day	2019
Special Task Force on Innovation in Education	2018-2019
Gen Ed Council for Assessment: Goal 2, Physical/Natural World Assessor	2017, 18
University Online Education Committee	2017-2019
Gen Ed Council for Assessment: Goal 4, Science/Math Assessor	2016
Diversity and Inclusion Council Liaison for SFRES	2016-2018
Graduate School Orientation Facilitator, RCR training	2014
MTU Graduate Student Council Representative	2005-2007

Michigan Tech, College of Forest Resources and Environmental Science

Ad Hoc Committee on Integrated Field Practicum Capacity Challenges	2023-2024
Keweenaw Invasive Species Management Area, Letter of Support, Collab.	2022
Finnish Delegations Visit, Michigan Tech – Luncheon and Tour	2022
CFRES Seminar Host: Dr Erin Cameron, St. Mary's Halifax, CAN	March 24, 2022
CFRES Awards Committee Member	2021-2022
Ad Hoc Ford Center Tree Planting Committee Member	2021-2023
Diversity and Inclusion Committee Member	2020-2023
Sustainable & Resilient Communities Social Network and Research Collaborative (SRC-Squared)	Spring '21-current
Virtual Open House, Forestry Representative	Nov 2020
Curriculum Committee Member	2019-2021
Ad Hoc/Formal Diversity Committee Member	2020-2021
Department of Defense (DoD) STEM camp, K-12 "Virtual Great Lakes Region and Tribal Nations" July and August sessions 2020	2020
Ecosystem Science Center Research Grant Proposal Reviewer	2020
Ad Hoc Charter and Bylaws Committee	2019-2021
Ad Hoc Diversity Committee Member	2019-2020
Curriculum Committee Member	2019-2021

Search Committee, SFRES Lecturer Position	Spring 2019
Ad Hoc Committee on Strategic Plan	2018
Ad Hoc Committee on Online and Blended Learning	2018-2019
Advisory Board planning, Diversity and Inclusion Topic Leader	2017, 18
Branding Development and Guide Team	2017-2018
School Council Representative, Research Faculty	2017-2018
Women in Natural Resources, Club Officer	2017-current
Participant/recorder Midwest Regional Climate Engagement Workshop	March 2017
Graduate Studies Committee (Chair)	2016-2018
Curriculum Committee (Additional)	2015-2018
Michigan Maple Syrup Association, Michigan Tech Sugarbush	2016-current
School Council Representative, Research Faculty	2015-2016
Graduate Studies Committee (Formal)	2015-2016
SFRES, Recruitment/Departmental Tours (as needed)	2014-current
SFRES Council Member, Alternate, Non-Tenure Track Faculty	2014-2015
Recruitment and Retention Committee	2014-2015
Graduate Curriculum Committee (Formal)	2014-2015
Graduate Curriculum Committee (Additional)	2013-2014
Curriculum Committee (Additional)	2014-2015
Springboard Undergraduate Advising Session	2014
Graduate Professional Development Forum Planner	2011
Graduate Seminar Committee	2009-2011
Student Advisory Committee	2009-2010
Student Advisory Committee	2006-2007

Ad Hoc Peer Reviews

Society of American Foresters National Conference Proposal Reviewer	2023
Journal of Environmental Studies and Sciences	2023
The American Biology Teacher	2023
Land	2023
Iniaatigoog Survey of Maple Sugar Producers, University of Wisconsin	2023
“Hinge Cut Survival Rate Report” Hunters Land Management LLC	2022
Forests	2022
Faculty application letter for University promotional position (external)	2022
Forests	2022
Society of American Foresters National Conference Proposal Reviewer	2022
American Biology Teacher	2022
Forests	2021
Northern Hardwood Conference Proceedings Reviewer, USDA GT	2021
Forestry Research	2021
“Bark Beetle Ecology, Management, and Climate Change” Chapter Synopsis	2021
The American Biology Teacher	2020
Journal of Forestry	2020
Minnesota Invasive Terrestrial Plants and Pests Center, University of MN	2020

Climate Change Resource Center, US Forest Service <i>Maple Syrup and Climate Change</i>	2020
Journal of Forestry	2020
Biological Invasions	2020
Forests	2020
The American Biology Teacher	2020
<i>Member of Reviewer Board, Forests, MDPI</i>	2020
Forests	2019
Academy of Finland, Academy Postdoctoral Researcher Applications Research Council for Natural Sciences and Engineering	2019
The American Biology Teacher	2019
Sustainability	2019
Forests	2019
Great Lakes Indian Fish & Wildlife Commission Climate Change Vulnerability Assessment for ziinzibaakwadwaatig	2018-2019
Sustainability	2018
Natural Sciences and Engineering Research Council of Canada Discovery Grant Proposal, Evolution & Ecology	2018
The Canadian Journal of Forest Research	2018
The American Biology Teacher	2018
Forest Ecology and Management	2018
The American Biology Teacher	2018
Journal in Advances in Biology & Biotechnology	2017
The American Biology Teacher	2017
The American Biology Teacher	2016
The American Biology Teacher	2016
The American Biology Teacher	2015
International Journal of Plant & Science	2014
The American Biology Teacher	2014
The American Biology Teacher	2014

Book Reviews

<i>Atlas of Forests and Trees</i> , Princeton University Press	2021
Choice, Current Reviews for Academic Libraries	
<i>The American Chestnut</i>	2022
<i>Colour Atlas of Trees and Woody Plants</i>	2021
<i>Dance of the Dung Beetle: Their Role in our Changing World</i>	2019
<i>Evolutionary Dynamics of Plant-Pathogen Interaction</i>	2019
<i>Sedges and Rushes of Minnesota</i>	2018
<i>Mushrooms of the Southeast</i>	2018
<i>Living Forests</i>	2018
<i>Invasion Dynamics</i>	2017
<i>Conserving the Dust Bowl: New Deal's Prairie States Forestry Proj.</i>	2017
<i>Forests of Michigan, 2nd Edition</i>	2016

<i>In One Yard: Close to Nature</i>	2016
<i>Hubbard Brook: The Story of an Ecosystem</i>	2016
<i>Managing Oak Forests in the Eastern United States</i>	2016
<i>Plantations and Protected Areas: A Global History of Forest Manage.</i>	2016
<i>Wildlife Habitat Management: Concepts and Applications in Forestry</i>	2016
<i>Beyond the War on Invasive Species</i>	2015
<i>The Future Use of Nordic Forests: A Global Perspective</i>	2015
<i>Multiaged Silviculture</i>	2015

Other Professional Service

National Association of University Forest Research Programs (NAUFRP) Diversity Committee Member	2022-2024
*SAF, Certification Seminar, SAF National Conference	2022
*SAF, Moderator, Young Professional Panel, SAF National Conference	2022
*SAF Advisory Group for #forestproud merger	2021
*NCFPW, Virtual Host, Judge for student competition	2021
NA Forest Insect Work Conference, Judge of student paper competitions	2021
SAF Engagement & Inclusion- Pilot Study (IRB through Colorado State U) Review of survey tool with Jamie Dahl, Terry Baker	2021
NCFPW State and Province Reports, Zoom Meeting Moderator	2020
North American Forest Insect Workshop 2021, Duluth, MN Session Proposal: When a 'native' species has an 'exotic' response.	2020
Women in Natural Resources Coffee Conversation, MSAF conference *planned – postponed due to covid-19	2020
Gabrielle Roberts, Houghton High School, Health Skills Microbiology lab training for medical lab science competition	2019
Houghton Middle School 7 th Grade Day of Science & Engineering	2019
North Central Forest Pest Workshop Conference Planning Committee	2018-current
Sugarbush Art, host painting class for Women in Natural Resources	2018
Keweenaw Bay Ojibwe Community College, June 22 Great Lakes Exploration Summer STEM Camp	2017
Metro Detroit Youth Day: College Row, Michigan Tech, Belle Isle	2016
Trees for Tomorrow College Panel, Eagle River, WI	2016
IUFRO, International Forestry Students Association (IFSA), Global Outlook on Forest Education, Task Force Participant	2016-current
Xi Sigma Pi, Michigan Tech Chapter, Scholarship Review Committee	2016-'19
SFRES Alumni Reunion, Ford Center 60 th , and SAF Summer Field Tour	2014
Boy Scout Merit Badge Instructor: Insect Study, April 12	2014
Climate Change Ecosystem Vulnerability Assessment Workshop Northern Wisconsin/Western UP, Houghton, MI, May 14-15	2013
Forest Investigations Summer Camp, Presenter, 'Forestry Tools' WUPCSMEE, June	2013
Lake Superior Youth Symposium, Presenter 'Non-native invaders of our Forest and Forest Health,' May	2013

Lake Superior Stewardship Initiative, Community Partner with C.J. Sullivan Elementary, L'Anse, MI, 'Insect Anatomy', May	2013
Science Exploration Program, 'Insect Importance', Presenter, Houghton Middle School	2012, '13, '14
Science Exploration Program, 'Invasive Insects', Presenter, Houghton Middle School	2014
CLK Family Engagement Night, 'All about Insects' Presenter, Lake Superior Stewardship Initiative, Community Partner with C.J. Sullivan Elementary, L'Anse, MI,	2012, '13, '14 2012
'Insect and Forest Health Importance to the Great Lakes'	
Lake Superior Stewardship Initiative, Hands-On Nature Workshop 'Entomology in the Classroom' Presenter	2011
American Forest Management Inc., Canopy Assessment Training	2010, '11, '12
Calumet Elementary School, Class Visit as a Forest Entomologist	2010, '11
Calumet Elementary School Career Fair, 'Forester' Presenter	2010
Western Upper Peninsula Science Fair Judge,	2009, '10
Western Upper Peninsula Science Fair Entomology Booth Developer	2007

PROFESSIONAL DEVELOPMENT AND TRAINING

"Detecting Oak Wilt across scales from leaves to landscapes" Forest Health Webinar, USDA Forest Service	2023
Advancing equity in the campus community considering the effects of insufficient childcare and caregiver support. ADVANCE Midwest Partnership	2023
"My data is not normal. What do I do now? An entomologists perspective" Statistical Workshop at JAM Entomological Society of America	2022
Mental Health Overview at Michigan Tech. Training for CFRES retreat.	2022
Nitidulidae Morphology and Identification. Training provided by David Dutkiewicz, Insect Taxonomist, OMNRF Ontario	2022
How do "well-meaning" faculty of privileged identities sustain inequity? NSF ADVANCE lecture series, Melissa Dancy, Western Michigan University	2022
Society of American Foresters, Oregon Wildfire Impact, Field Trip for BOD	2022
Bumble Bee Short Course for Community Scientists, The Ohio State University	2022
Data Science in Ecology: Needs and strategies for workforce development	2022
Institute for Policy, Ethics, and Culture Series, MTU: Dr. Suzanne Simard	2022
SAF DEI Working Group: A conversation with Dr Thomas Rashad Easley	2022
Ininaatig Dibaajimowinan, Storytelling : Sugar Maple, GLIFWC	2022
Project Implicit, Implicit Bias Workshop, NSF Advance	2022
SAF District V Leadership Academy (speaker and attendee)	2021
Forest Service Forest Health Conference Call	2021
State and Private Forestry Competitive Grant Programs & Funding Opportunities	
North American Maple Syrup Council, Keys to Maximizing Yield	2021
Menominee Tribal Enterprises, Oak Wilt Management & Control	2021
USDA NRCS, Beneficial Invertebrates in Our Soil (1.5hr webinar)	2021
Women in Forestry Virtual Summit, Canadian Forest Industries	2021

American Bird Conservancy Great Lakes- Invasive Shrubs and Forest Birds	2021
Controlling Ailanthus through Utilization (Forest Products Lab)	2021
MTU, CTL, Curriculum Design, Assessment, and Beliefs, Katrina Black	2021
Canvas Commons, Local Literacy of the Copper Country (3 modules)	2021
MTU, Research Development Day	annual participation since 2015+
MTU, VPR Series, SPO Award Team and Get Ready for Research Day	2020
MTU, Diverse Dialogues, We can't be what we can't see:	2020
Best practices for recruiting & retaining diverse faculty & staff leaders	
Warnell School of Forestry, UGeorgia, Carolyn Finney	2020
“What's Race Got to do With It? Christian Cooper, John Muir, and the Nature of Green Space”	
Lake Superior Stewardship Initiative, Hunting for Fabulous Fungi with Students!	2020
MTU, VPR Office, SciENcv – Building your Biosketch, Budgeting like a Pro	2020
MTU, CFRES, Faculty Forum on Teaching Remotely and Hybrid	2020
Forest Service Forest Health Conference Call –9-1	2020
Update on European Gypsy Moth and Slow the Spread Programs	
MTU, Faculty Orientation	2020
Coronavirus Prevention in the Workplace, MTU Flex, State of Michigan	2020
Alger County Conservation District, HWA training and Forest Health Updates	2020
EAB University, Forest Invaders to watch for and how to manage them:	2020
Spotted Lanternfly, Gypsy moth, and Hemlock Woolly Adelgid, Purdue University	
MTU, CTL Idea Hub: Engaging students online (multiple sessions)	2020
NAFSE Webinar: Lyme disease ecology: working to understand hot spots	2020
Southern Regional Extension, Forest Health Webinar: Case of Callery Pear	2020
MTU, Center for Teaching & Learning, Education Technology Roundup	2019
MTU, Research Development Day attendee	2015, '16, '17, '18, '19, '20
Research Meeting, Oconto Seed Orchard, WI, Forest Service	2019
Research Meeting and Tour, Koppers, Pittsburgh, PA	2019
MTU, Advocates and Allies Workshop, NSF ADVANCE Program	2019
MTU, CTL Workshop: Choosing and Using Media	2019
MTU, Anishinaabemowin Distance Learning Session, Dr. Noodin	2019
MTU, SFRES, Brown Bag Dialogue with Calvin Hartig	2019
“Recruitment and Retainment of/for Native American Students”	
<i>Drawing Nature, Science and Culture: Natural History Illustration 101</i>	2019
University of Newcastle Australia, NewcastleX, MOOC. Aug 13-Sept 24	
Continental Mycoblitz, North American Mycoflora Project, iNaturalist	2019
Debweyendan (“believe in it”) Indigenous Gardens (DIGs)	2019
Community Garden Workshop, Companion Planting – How plants help each other	
Western UP Food Systems Council Meeting, Leek Harvesting Workshop	2019
Ezhi-wiidanokiindiyang omaa akiing ebiitamang	2019 – present
“As we work together here in our home the earth”, Environmental Steward/ Indigenous Engagement & Inclusivity Learning Community Member	
MTU, Information Security & Compliance Training	2019
MTU, Best Practices for Faculty Hiring/Legal Aspects	2019

MTU, Diversity Literacy Workshop Training, Full Course Faculty	2019
MTU, SFRES Budget Workshop	2018
MTU, Web Accessibility Online Training	2018
MTU, Registered Student Organization Training for Advisors	2018
500 Women Scientists, Member of STEMM platform	2018-present
Heterobasidion Root Disease Timber Sale Spec Training, MDNR	2018
MTU, Faculty Research Development Trip to Washington DC	2018
Washington DC Alumni and Congressional Staffers Event, National Science Foundation (OISE, SBET, HER, Soc., DEB) AAAS Science and Technology, USDA NIFA, FS Liaisons – Program Manager meetings	
Certified Wild Mushroom Forager & Commercial Identifier	2018 – present
Michigan Department Agriculture and Rural Development and Midwest American Mycological Information	
MTU, Center for Teaching & Learning, Teaching Fast and Slow Thinkers	2018
Forest Service, Northeastern Areas Forest Health Group, Monthly Calls	2016 – present
Friends of the Porkies, Plant Dying Technique Workshop	2017
Elsevier Campus, Gender Bias in Academic Publishing	2017
MTU, ED5540 Foundations of Online Teachings, 1 credit Graduate Course	2017
MTU, Technology Day, Social Media Workshop	2017
MTU, Safe Place Ally Training Program	2017
MTU, Best Practices for Faculty Hiring/Legal Aspects	2016
MTU, Diversity Literacy Workshop Training, Full Course Staff	2016
MTU, Staff Search Committee Best Practices Workshop	2016
Lake Superior Stewardship Initiative & MTU, Education and the Seventh Generation: Anishinaabe perspective & integration into the classroom	2016
MTU, Professional Development, difficult conversations, body language	2016
MTU, Teaching Tools, Center for Teaching and Learning	2015
Society of American Foresters, Heartland Leadership Academy, Aug. 3-6	2014
EDU: Stop Harassment & Discrimination (US-13F)	2014
MTU, Content Management System (CMS) Web Administration	2013
Responsible Conduct in Research Online Program	2012
Collaborative Institutional Training Initiative, University of Miami	
SFRES Professional Development Forum	
Time Management	2009
Getting Published	2011
Engaging Community, Outreach in Research	2013
Successful Networking	2014
Ash Inventory Crown Assessment Training,	2005, '06, '09
Magna Online Seminars, Webcast	2008
Classroom Management 101: Working with Difficult Students	
Certified Tree Farm Inspector Training	2007
Forest Industry Safety & Training Alliance, Chainsaw Safety Certification	2005
National Wildfire Coordinating Group	2004
Wildland Firefighting Red Card Certification	
Project Learning Tree PreK-8 Certification	2003

GRADUATE STUDENT ADVISING**MASTER OF FORESTRY STUDENTS – ADVISOR**

75. Hurin, Melina*	2023-2024	34. Kaiser, Coleman*	2018-2019
74. Craddock, Harlee	2023-2024	33. Evans, Zachary	2018-2019
73. Zych, Jordan*	2023-2024	32. Palmer, Jamal	2018-2019
72. Schimmel, Laura	2023-2024	31. Tyran, Doug	2018-2019
71. Alakayak, Wabanungoquay	2022-2023	30. Warmboe, Ryan	2018-2019
70. Hohnholt, Courtney	2022-2024	29. Fodor, Hunter	2017-2018
69. Jensen, Oliver-Hobbes	2022-2023	28. Bradsher, Jacob	2017-2018
68. Beeson, Joseph‡	2022-2023	27. Michaelson, Tristan	2017-2018
67. Fallu, Chase*	2022-2023	26. Selan, Jeff‡	2017-2018
66. Foguth, Ryan (d)	2022-2024	25. Amundson, Jarrod	2017-2018
65. Neibaur, Evan*	2022-2023	24. Price, Garret	2017-2018
64. Dahms, Kyle	2021-2022	23. Johnson, Joe	2017-2018
63. Hacker, Katelyn	2021-2022	22. Martinchek, Justin	2016-2018
62. Panella, Tom	2021-2022	21. Peacock, Brian	2016-2017
61. Garbacz, Ben (d)	2021	20. Raj, Jake	2016-2017
60. Verduyn, Michael	2021-2022	19. Halabut, Jacob	2016-2017
59. Arkwright, Michael	2021-2023	18. Taylor, Joel	2016-2017
58. Biggs, Bradley	2021-2022	17. Mantani, Steven	2016-2017
57. Yeo, Matthew*	2021-2022	16. Gilmore, David	2015-2016
56. Brady, Mattison‡	2020-2021	15. Perrier, Alexandra	2015-2016
55. Lewis, Seth	2020-2021	14. Kleiman, Shane*	2015-2016
54. De Triquet, Thomas	2020-2021	13. Heikennen, Travis	2015-2016
53. Cermak, Hudson	2020-2021	12. Dee, Stella	2015-2016
52. Slavsky, Laura	2020-2021	11. Coval, Brodrick	2015-2016
51. Loewe, Angela	2020-2021	10. Semones, Darren	2015-2016
50. Krause, E.	2019-2021	9. Rood, Michael	2015-2016
49. Montgomery, Elizabeth	2019-2020	8. Shideler, Bryan	2014-2015
48. Mrozek, Shane	2019-2020	7. Scabia, Michael	2014-2015
47. Sigg, Casey	2019-2020	6. Perzynski, Kevin	2014-2015
46. Krause, Liam (trans. MS)	2019	5. Genther, Winona	2014-2015
45. Prangly, Nathan*	2019-2020	4. Modlin, Matt	2014-2015
44. Hibner, Trenton*	2019-2020	3. Travis, Ben	2014-2017
43. Hawley, Logan*	2018-2020	2. Pinti, Nathan	2014-2015
42. Choiniere, Michael	2018-2020	1. Aksentowitz, Sean	2013-2015
41. Laux, Ashley	2018-2019		
40. Kamp, Lauren	2018-2019		
39. Diedrich, Patrick	2018-2019		
38. Goss, Ethan	2018-2019		
37. Noack, Mirko	2018-2019		
36. Myers, Seth	2018-2020		
35. Suozzi, Kevin*	2018-2019		

*accelerated Master's of Forestry

‡Dual MF, MS Advisee

RESEARCH DEGREE – ADVISEES

Primary Advisor*, Co-Advisor**, or Committee Members

*Bershing, Kathleen – MS	2023-2025	Dolinski, Lindsey - MS	2019-2022
*Beeson, Joseph – MS/MF	2023-2024	**Eskola, Joseph - MS	2019-2023
Ring, Libbie – MS	2023-2024	Ela, Raisa- PhD, Chem Eng	2018-2020
Tran, Mai Ahn- PhD, SS	2022-2024	*Klemm, Jennifer – MS	2018-2020
*Panella, Tom- PhD	2022-2025	Burmann, Laura- MS	2018-2020
Petosky, Hailee – MS, Biology	2021-2023	*Myers, Andrea- PhD	2017-2021
Hohnholt, Christopher- PhD	2021-2023	Post-Doc	2021-2023
*Anderson, Manuel – MS	2021-2023	*Uykun, Cuma - MS	2017-2018
*Brady, Mattison – MS	2021-2022	Selan, Jeff- MS	2018-2019
*Grinstead, Julie- PhD	2020-2021	Petras, Megan – MS	2016-2017
*Lane-Clark, Shelby – MS	2020-2023	Cladas, Karen- MS	2014-2015
*Higdon, Kath – PhD	2020-2023	Klapperich, James- MS	2013-2015

STUDENT PROJECTS

(“” are completed Dissertations/Theses titles)

Kathleen Bershing, MS student	2023-2025
<i>Northern oak wilt modeling, monitoring nitidulids and phenology above current range</i>	
Tom Panella, MF & PhD Student	2021-2025
<i>Development of an Entomological Specimen Collection and Monitoring Success of a Grafting Program for Restoration of American Beech</i>	
Abraham Stone, undergraduate	2022-2024
SURF recipient “ <i>Developing efficient deployment of a natural myco-biological control on an invasive tree species</i> ” Senior Thesis. Spring 2022. SURF recipient “ <i>The Hawkweeds of Isle Royale: Biodiversity and Hybridization along the Greenstone Ridge.</i> ” Spring 2023. MSGS Awardee.	
Katelyn Hacker, MF student	2022
<i>Chondrostereum purpureum wood decay on buckthorns and native species</i>	
Manuel Anderson, MS student	2021-2023
<i>Improving Maple Dieback Models in the Great Lakes Region</i>	
Mattison Brady, MS student	2021-2022
<i>“Decadal Reevaluation of Sugar Maple Dieback Etiology across the Upper Great Lakes Region”</i>	
Seth Lewis, MF student	2020-2021
<i>Assessment of Stream Restoration to Inform Future Efforts to Maintain Coldwater Streams</i>	
Shelby Lane-Clark, MS student	2020-2023
<i>“Impacts of Introduced Earthworms on Sugar Maple Sap Chemistry and the Discourse of Invasion Ecology”</i>	
Lindsey Dolinski, MS student, Forest Ecology and Management	2020-2021
<i>“Evaluation of Fungal Biocontrol of Invasive Buckthorn”</i>	
Julie Grinstead, PhD student	2020-2021
<i>Evaluation of Sugar Maple Dieback and Improving Models in the Great Lakes Region</i>	

Joseph Eskola, MS student, Forestry	2019-2022
<i>Methodology evaluation of wood decay laboratory testing</i>	
Tess Peterson, Insect Research Independent Study	2019-2020
<i>A review of thimbleberry pests and future threats</i>	
Katherine Schneider, BS Applied Ecology and Environmental Science, Biotech	2019-2020
(Higdon), PhD Student, Forest Science	2020-2023
<i>Burying beetles as iDNA tool for small mammal community biodiversity</i>	
SURF recipient. ESC Undergraduate Research Grant Award \$750 “ <i>Sequencing DNA extracted from Silphidae: a new iDNA tool for sampling small mammal biodiversity</i> ”	
Andrea Myers, PhD Student, Forest Science	2018-2021
<i>“Development of a Propagation Program for Beech Bark Disease-Resistant American Beech (Fagus grandifolia) and an Applied Restoration Plan for Mitigation of Beech Bark Disease”</i>	
CS 4760 – User Interface Design and Implementation	Spring 2020
(Collaboration with Pastel and Kitalong) <i>Backyard Berry App</i> student team advisor	
Raisa Carmen Ela, PhD student, Chemical Engineering	2019-2020
<i>Innovative Sustainable Wood Preservatives from Pulp and Paper Industry Byproducts</i>	
Eva Granroth and Shion Terrell, Summer Youth Programs STEM Internship	2019-2020
<i>Legacy effects of experimental silviculture on wild blueberry production</i>	
Siona Beaudoin, Lake Linden High School Intern	2019-2021
Junior Science and Humanities Symposia Program, Regional Nominee, JSHS National Symposia Competition, 3 rd place Poster April 2020.	
<i>“Public Perceptions of Wild Berry Crops and an Invasive Species Pest Threat in Rural Michigan”</i>	
Jennifer Klemm, MS student, Applied Ecology	2018-2020
<i>“Adapting Environmental Education for the Virtual Space” Report</i>	
ESC grant “ <i>Overview of Acer saccharum in the Upper Peninsula of Michigan through the use of palynology and historical records</i> ”	
Jamal Palmer	2018-2019
<i>Assessment of Urban Trees of Michigan Tech’s Campus</i> (changed to coursework)	
Jeffrey Selan, MS report, Forest Ecology and Management	2018-2019
<i>“Are the Effects of Ecosystem N Saturation Induced by Chronic Simulated N Deposition Rapidly Reversible?”</i>	
Laura Burmann, Master of Science in Forestry	2018-2019
<i>“Formative Interests and Pathways to Natural Resources Careers among Historically Underrepresented People”</i>	
Kaydi Picard	2017-2019
<i>Evaluating Midwest Markets for Tapped Maple Wood</i> (withdrew)	
Cuma Uykun: Master of Science, Forestry	2017-2018
<i>“Above-ground biomass and carbon estimations and recommendations for forests in Turkey”</i>	
Megan Petras; Master of Science, Forest Ecology and Management	2016-2017
<i>“Effects of group selection with Yellow Birch (Betula alleghaniensis) retention on the understory and sapling layer in northern hardwood forests”</i>	
Karen Cladas; Co-Advisor, Master of Science, Forest Ecology and Management	2014-2015

“Agrilus planipennis detection success at low densities associated with distance from road.”

James Klapperich; Master of Science, Forest Ecology and Management 2013-2015
Assessment of beech bark disease in Upper Michigan (changed to coursework)

STUDENT ASSISTANTS (undergrad & graduate)	
August Camp (editing support)	2022
Liz McCloskey, Lexi Kincaid (earn and learns), Will Anderson (2 nd E&L)	2022-23
Katie Bershing (NHSeed Silphid field technician)	2022
John Siskinetz, Katelyn Hacker (earn and learn, wood decay lab technicians)	2021-22
Ayla Zambrano, Will Anderson, Stell Barone, Marisa Wilks, Tom Panella, Kelsey Gancsos, (earn and learn Entomology technicians) Clara Stauber (volunteer)	2021-22
Forest health field technicians	2021-22
Allie Johnson (oak wilt), Anna Debraber (maple sap), Emma Jones (maple dieback) Stell Barone (maple dieback), J.T. Boudreau (oak wilt), Zhongming An (oak wilt) Multiple volunteers from FW3840 for tree planting in Alberta (1 day fall) Helen Belopavlovich, Samuel Mensah Opoku, Robby MacKinnon (volunteer winter scion collection March 5-6)	
Chass Winters (greenhouse technician)	2021
Gabrielle Roberts (decay lab technician)	2021-2022
Sierra Rosten (earn and learn, insect ecology lab)	2021
Ande Myers (grading assistant, Forest Health)	2020
John Siskinetz (earn and learn, wood decay lab technician)	2020-21
Max Vredeveld, Clara Stauber, (earn and learn Entomology technicians)	2020-21
Zachary Merrill (TA, FW1050 Natural Resources Professional)	2020
Shane Mrozek, Casey Sigg (Earn and Learn, wood decay lab technicians)	2019-2020
Max Rivas, Sierra Williams, Kristen Miller, Leo Wheeler (Earn and Learn)	2019
James Rauschendorfer (TA, FW1050 Natural Resources Professional)	2019
Katherine Schnieder (2 nd year Earn and Learn, Insect and Fungi Labs)	2018-2019
Kaydi Picard, Rachel Verran, Jarrod Amundson, Garret Price, Emma Byrne, Kaitlyn Dodge (Earn and Learn)	2018
Joyanne Mittig, Kaydi Picard (SFRES Strategic Planning Report Assistant)	2018
Jarrod Amundson, Kaitlyn Dodge, Ethan Dankert, Emma Byrne, Alex Moyer (Earn and Learn, various SFRES projects)	2017-2018
Laura Jacobs, Tilly Behrman, Tristan Michaelson, Garret Price (TAs FW2010)	2017
Kaydi Picard (SFRES special project assistant)	2017
Brian Peacock, Jonathon Homer, Alexis Dahlgren (Earn and Learn, SFRES photographer)	2016-2017
Jacob Halabut, Fred Saigh (Earn and Learn, equipment manager)	2016-2017
Shane Kleiman, Kaydi Picard, Ashley Truitt, Danielle Stewart (TA and Lab Leaders FW2051)	2016
Winona Genther, Brody Coval, Darren Semones, Devin Kohn (TA FW2010)	2015
Winona Genther, Mickey Jarvi, Joanna Rodgers (TAs FW2010)	2014
David Gilmore (Earn and Learn, Equipment Management)	2015-2016

Kira Ferguson, Danielle Stewart, (Earn and Learn, MTU Tree Walk)	2014-2015
Kurt Lehman, Jonathan Malette – Field Techs	2012
Andrew Beebe, Sunshine Love, Blaine Stormer, Erik Adams, Adam Larsen, Amy Berns – Field Techs	2011-2012
James Klapperich, Chad Fortin, Christine Jones, Mellissa Porter, Donovan Young, Will Schultz – Field Techs	2010-2011
Sally Sanderson - Field Techs	2009-2010

CONFERENCES and PROFESSIONAL MEETINGS ATTENDED: (* Research presented)

<u>Invasive Species Forum</u>	2023
(virtual, Sault Ste Marie, Ontario, Canada 2-7/2-9, Invasive Species Centre)	
<u>Improving Oak Wilt Management Conference</u>	2022
(virtual, Penn State Extension 2-1/2-2)	
<u>Forest Pest Management Forum 2021, Natural Resources Canada</u>	2021
(virtual 2-16/ 2-17)	
<u>Upper Midwest Invasive Species Conference</u>	2020
Duluth, MN (virtual) 11-2/11-7 – special attendance, “Words we use Matter”	
<u>Interagency Forest Invasives Committee Meeting (Spring and Fall)</u>	
Okemos, Michigan (virtual)	2019*, 2019, 2020,
2020, 2021, 2021, 2022, 2022, 2023	
<u>Biennial Conference on University Education in Natural Resources</u>	
University of Nebraska (virtual)	2022*
University of Montana, Missoula (Zoom conf. due to COVID-19)	2020*
Stephen F Austin State University, Nacogdoches, Texas	2018*
<u>International Maple Syrup Institute/North American Maple Syrup Council Conference</u>	
Concord, New Hampshire	2018
Levis, Quebec	2017
<u>International Union Forest Research Organizations (IUFRO)</u>	
Freiburg, Germany (125 th World Congress)	2017*
Salt Lake City, Utah	2014
<u>Upper Peninsula Teaching and Learning Conference, Houghton, MI</u>	2017, 19, 20
<u>Heterobasidion Root Disease Work Planning Meeting (Forest Service FPL)</u>	2015*
<u>Society of American Foresters National Conventions</u>	
Baltimore, Maryland	2022*
Sacramento, California Virtual	2021*
Providence, Rhode Island, Virtual	2020*
House of Society Delegates, Leadership Roundup, Certification Seminar (invited)	
Portland, Oregon	2018*
Madison, Wisconsin	2016*
Salt Lake City, Utah (in conjunction with IUFRO World Congress)	2014*
Charleston, South Carolina	2013*
Pittsburgh, Pennsylvania	2006*
Fort Worth, Texas	2005*
Buffalo, New York	2003

Society of American Foresters Chapter Conferences

Grayling, Michigan Spring Meeting	2023
Keshena, Wisconsin (BOD report)	2022
Escanaba, Michigan (BOD report)	2022
Grayling, Michigan (BOD report)	2022
Virtual, Minnesota (BOD report)	2022
-Joint with Sustainable Forests Education Cooperative Research and Practice	
Virtual, Michigan (BOD report)	2021
Virtual, Iowa (BOD Report)	2020
Virtual, Wisconsin (BOD Report)	2020*
Virtual, Michigan (BOD Report)	2020*
Grayling, Michigan, virtual (BOD Report)	2020*
Brainerd, Minnesota (BOD Report)	2020
Escanaba, Michigan	2019
Sault Ste. Marie, Michigan (organizer and MC)	2018*
-Joint meeting with Ontario Chapter Canadian Institute of Forestry	
Marquette, Michigan (organizer and MC)	2017
Gaylord, Michigan	2016
Bay City, Michigan	2015
Marquette, Michigan (organizer and MC)	2015
Bay Harbor, Michigan	2014
Escanaba, Michigan (organizer)	2014*
Minoqua, Wisconsin	2013*
Traverse City, Michigan	2013
St Ignace, Michigan	2011*
<u>Natural Areas Association National Conference</u>	
Duluth, Minnesota	2022*
<u>Northern Hardwood Conference</u>	
(virtual)	2021*
<u>North Central Forest Pest Workshop</u>	
Grand Rapids, Minnesota (Invited)	2022*
Virtual Conference (11-8/11-9) (moderator and host)	2021*
Virtual State/Province Update (moderated)	2020
Lisle, Illinois	2019*
Gaylord, Michigan	2016*
Hartland, Michigan	2011*
LaCrosse, Wisconsin	2005*
<u>Canadian Institute of Forestry</u>	
Canada Forest Pest Forum (Feb 16-17, virtual)	2021
<u>Ohio Department of Natural Resources Forest Health Meeting</u>	2019*
<u>Maple Syrup Producer Workshop, Gitche Manidoo Giizis PowWow</u>	2017*
<u>Western Great Lakes Research Conference</u> Ashland WI	2006*
<u>Graduate Student Research Session</u> , Michigan Technological University	2006*, '09*
<u>Sustainable Forestry Conference</u> , Florence WI	2006, 2018*

North American Forest Insect Work Conference

Duluth, Minnesota (virtual – organized, moderated session, student judge) 2021 “When ‘native’ insects have an ‘exotic’ response”	
Portland, Oregon	2011*
Ashville, North Carolina	2006*
<u>Ecosystem Science Center Research Forum, Michigan Tech</u>	2006+add.yrs
<u>Entomological Society of America</u>	
Vancouver, British Columbia, Canada	2022*
San Diego, California	2007*
Indianapolis, Indiana	2006*
Fort Lauderdale, Florida	2005*
<u>Rapid Response Invasive Plant Intervention Team for the UP Marquette, MI</u>	2011
<u>IUFRO-IFSA</u> (International Union of Forest Research Organizations – International Forest Student Association) Joint Task Force Webinars Global Outlook on Forest Education and Educator’s Forum	2016, 17, 18

PROPOSALS

62 Proposals awarded since 2014 (28 as PI) (does not include student awards listed below)

Student Advisee Awards

*(*excluding scholarships and travel grants)*

Bershing, Katie: Undergraduate Research Symposium, Excellence Design Poster	2023
Higdon, Katherine: competitive RA position for Integrated Field Practicum	2023
Higdon, Katherine, Graduate Teaching Excellence, Michigan Tech	2023
Anderson, Manuel, Ecosystem Science Center Graduate Research Grant: \$1000	2023
Stone, Abraham: Natural Areas Association National Conf., 3 rd Place Poster Pres.	2022
Lane-Clark, Shelby, Professional Grant, Natural Areas Association: \$100	2022
Hacker, Katelyn, Career Enrichment Grant \$300 (SAF)	2022
Lane-Clark, Shelby: Ecosystem Science Center Graduate Research Grant: \$1000	2022
Schnieder, Katherine: Ecosystem Science Center Graduate Research Grant: \$1000	2022
Stone, Abraham: Ecosystem Science Center Undergraduate Research Grant: \$750	2022
Schneider, Katherine: CFRES Outstanding Graduate Student Service	2022
Schneider, Katherine: Competitive TA position for Integrated Field Practicum (3yrs)	2021
Myers, Ande: Michigan Tech Graduate School Finishing Fellowship	2021
Schnieder, Katherin: The Wildlife Society National Conf., 1 st Place Poster Pres.	2020
Klemm, Jennifer, Ecosystem Science Center Research Grant: \$1000	2019

WHITE PAPER DEVELOPMENT

Bal, Windmuller Campione. 2022. Forest Education & Diversity: Programmatic Surveys to Address Impacts on Students. NAURFP Education Committee, 2022
Bal. 2019. Biochar, Forest Health Impacts, and Circular Bioeconomy. Koppers, Inc. December, 2019
Rudnicki, Bal, Dai, Xie. 2019. Connor Sports Wood Flooring Competitiveness. July, 2019.
Bal, Carter, Hersh-Green. 2018. Invasive fruit fly: ecological and social sustainability impacts. USDA National Institute of Food and Agriculture. May 2018.

Private Consulting

Mold sample Analysis. <i>Mann+Hummel Purolator Filters.</i>	November 2021
Wood sample Analysis. <i>ISK Biocides.</i>	November 2021
Wood Sample Analysis. <i>DTE Energy.</i>	October 2020
Wood Sample Analysis. <i>ISK Biocides.</i>	September 2020
Paid reviews, Academy of Finland	December 2019
Wood Sample Analyses. <i>ISK Biocides.</i>	May 2019
Wood Sample Analyses. <i>ISK Biocides.</i>	February 2019
Wood Sample Analyses. <i>Koppers.</i>	February 2019
Wood Sample Analyses. <i>ISK Biocides.</i>	November 2018
Tree Ring Analysis to Age Apple Trees. <i>Eliason Law.</i>	March 2014

Other Metrics

Google Scholar: <https://tinyurl.com/GScholarTLBal>
Total Citations: 233 (March 2023)
h-index 8

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