

Tara L. Bal, PhD, CF

Forest Health Specialist

Curriculum Vitae – April 21, 2020

School of Forest Resources and Environmental Science, Michigan Technological University

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Google Scholar: <https://tinyurl.com/GScholarTLBal> | Total Citations: 101 (April 1, 2020)

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
- Wild Mushroom Identification Certification #MC00547 2018 – present
Michigan Department Agriculture and Rural Development and
Midwest American Mycology Information

TEACHING EXPERIENCE

- Bal, Professionalism in Forestry 2020
FW 5081, 6 students, Spring Semester, 1 credit
- Bal and Burton. The Natural Resources Professional 2020
FW1050, 76 students, Spring Semester, 2 credits
- Bal, Maple Syrup Mgmt & Culture 2020
FW 3765, 42 students, Spring Semester, 1 credit, online
- Orr and Bal, Ethnobotany, 2019
FW 3116, 14 students, Fall Semester, 3 credits
- Jarvi, Communication for Natural Resources Professionals 2019
Co-taught Bal, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer
FW 4800, 36 students, Fall Semester, 2 credits
- Bal, Insect Field Research, Independent Study 2019
FW 4500, 2 students, Fall Semester, 2 credits each
- Bal, Forest Health 2019
FW 3840, 29 students, Fall Semester, 3 credits, IFP
- Bal and Jarvi, Forest Management 2019
FW 5079, 4 students, Fall Semester, 2 credits, IFP

Bal, <u>Insect Ecology</u>	2019
<i>FW 3800, 12 students, Fall Semester, 2 credits, IFP</i>	
Bal, <u>Forest Health</u>	2019
<i>FW 3840, 14 students, Summer Semester, 3 credits, IFP</i>	
Bal and Kelly, <u>Forest Management</u>	2019
<i>FW 5079, 3 students, Summer Semester, 2 credits, IFP</i>	
Bal, <u>Insect Ecology</u>	2019
<i>FW 3800, 7 students, Summer Semester, 2 credits, IFP</i>	
Bal, <u>Woody Plants of the Great Lakes Region</u>	2019
<i>FW 4500, Independent Study, 1 student, Summer Semester, 2 credits</i>	
Bal, <u>Wild Foods: People and Plants in the Northern Forest</u>	2019
<i>FW 3111, 7 students, Summer Semester, 2 credits online, TA Jennifer Klemm</i>	
Bal, <u>Maple Syrup Mgmt & Culture</u>	2019
<i>FW 3765, 40 students, Spring Semester, 1 credit, online</i>	
Bal, <u>Sugarbush Operations</u>	2019
<i>FW 4500, Independent Study, 1 student, Spring Semester, 2 credits</i>	
Bal, <u>Professionalism in Forestry</u>	2019
<i>FW 5081, 12 students, Spring Semester, 1 credit</i>	
Bal and Jondreau. <u>The Natural Resources Professional</u>	2019
<i>FW1050, 72 students, Spring Semester, 2 credits</i>	
Kelly, <u>Integrated Resource Data Collection and Practicum</u>	2018-19
<i>FW4811, FW4812, Fall and Spring Semester, 4 credits, Team advisor</i>	
<i>"Pollinator Management Plan for Michigan Northwoods Club, Marquette, MI"</i>	
Bal, <u>Forest Health</u>	2018
<i>FW 3840, 31 students, Fall Semester, 3 credits, IFP</i>	
Bal, <u>Insect Ecology</u>	2018
<i>FW 3800, 13 students, Fall Semester, 2 credits, IFP</i>	
Storer, <u>Communication for Natural Resources Professionals</u>	2018
<i>Co-taught Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer</i>	
<i>FW 4800, 29 students, Fall Semester, 2 credits</i>	
Bal, <u>Forest Health</u>	2018
<i>FW 3840, 15 students, Summer Semester, 3 credits, IFP</i>	
Bal, <u>Insect Ecology</u>	2018
<i>FW 3800, 7 students, Summer Semester, 2 credits, IFP</i>	
Bal and Storer. <u>The Natural Resources Professional</u>	2018
<i>FW1050, 60 students, Spring Semester, 2 credits</i>	
Bal, <u>Maple Syrup Management & Culture</u>	2018
<i>FW 3765, 40 students, Spring Semester, 1 credit</i>	
Bal, <u>Michigan Forest Tax Policy</u>	2018
<i>FW 5510, 1 student Independent Study, Spring Semester, 1 credit</i>	
Bal, <u>Field Techniques</u>	2017
<i>FW 2051, 68 students, Fall Semester, 2 credits</i>	
Bal and Webster, C. <u>Woody Plants of North America</u>	2017
<i>FW 5010, 8 students, Fall Semester, 2 credits</i>	

Bal, <u>Insect Ecology</u>	2017
<i>FW 3800, 15 students, Fall Semester, 2 credits, IFP</i>	
Storer, <u>Communication for Natural Resources Professionals</u>	2017
Co-taught Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer	
<i>FW 4800, 12 students, Fall Semester, 2 credits</i>	
Bal, <u>Insect Ecology</u>	2017
<i>FW 3800, 10 students, Summer Semester, 2 credits, IFP</i>	
Bal and Schmidt, K. <u>Wild Foods: People and Plants in the Boreal Forest</u>	2017
<i>FW 4500, 12 students (cap), Summer Semester, 1 credit, online</i>	
Bal, <u>Maple Syrup Mgmt & Culture</u>	2017
<i>FW 3765, 40 students, Spring Semester, 1 credit, online</i>	
Storer, <u>Communication for Natural Resources Professionals</u>	2016
Co-taught Bal, Bergmann, Burton, Cavaleri, Flaspohler, Hyslop Rudnicki, Schmierer	
<i>FW 4800, 9 students, Fall Semester, 2 credits</i>	
Bal, <u>Field Techniques</u>	2016
<i>FW 2051, 67 students, Fall semester, 2 credits</i>	
Webster, C. and Bal, <u>Vegetation of North America</u>	2016
<i>FW2010/5020, Fall semester, 4 credits</i>	
Bal, <u>Insect Ecology</u>	2016
<i>FW3800, 8 students, fall semester, 2 credits, IFP</i>	
Bal, <u>Teaching in Natural Resources</u>	2016
<i>FW5510, 1 student Independent study, fall semester, 4 credits</i>	
Bal, <u>Insect Ecology</u>	2016
<i>FW3800, 9 students, summer semester, 2 credits, IFP</i>	
Bal, <u>Maple Syrup Mgmt. & Culture</u>	2016
<i>FW 4500, 37 students, spring semester, 1 credit online</i>	
Bal, <u>Wood Anatomy and Products</u>	2016
<i>FW1035, 41 students, spring semester, 4 credits</i>	
Bal, <u>Mechanical & Anatomical Properties of Wood</u>	2016
<i>FW 5510, 1 student Independent Study, 2 credits</i>	
Bal, <u>Field Techniques</u>	2015
<i>FW 2051, 59 students, fall semester, 2 credits</i>	
Bal, <u>Insect Ecology</u>	2015
<i>FW 3800, 12 students, fall semester, 2 credits, IFP</i>	
Jarvi, M. and Bal, <u>Vegetation of North America</u>	2015
<i>FW 2010/5020, 62 students, 11 in lab section, fall semester, 4 credits</i>	
Bal, <u>Maple Syrup Mgmt. & Culture</u>	2015
<i>FW 4500/5510, 19 students, spring semester, 1 credit online</i>	
Bal, <u>Field Techniques</u>	2014
<i>FW 2051, 58 students, fall semester, 1 credit</i>	
Roth, A. and Bal, <u>Vegetation of North America</u>	2014
<i>FW 2010, 62 total students, 10 in lab section, fall semester</i>	
Bal, <u>Insect Ecology</u>	2014
<i>FW 3800, 15 students, fall semester, 2 credits, IFP</i>	

Bal, <u>Michigan Forest Health</u>	2014
<i>FW 5510, 1 student Independent Study, summer semester, 1 credit</i>	
Bal, <u>Insect Ecology</u>	2013
<i>FW 3800, 13 students, fall semester, 2 credits, IFP</i>	
Storer, A.J. and Bal, <u>Forest Health</u>	2012
<i>FW 3840, 51 students, fall semester, 3 credits, IFP</i>	
Storer, <u>Research Methods in Natural Resources</u>	2012
<i>FW 5810, (teaching assistant), 13 students, fall semester</i>	
Bal, <u>Multiple Resource Assessment</u>	2009
<i>FW 3190, 48 students, fall semester, 3 credits</i>	
Bal, <u>Integrated Resource Practicum</u> (Capstone)	2009
<i>FW 4810, 41 students, spring semester, 4 credits</i>	
Pregitzer, M. <u>Vegetation of North America</u>	2006
<i>FW 2010, (teaching assistant), 11 students in lab, fall semester</i>	
*IFP is Integrated Field Practicum taught at Alberta, MI, Ford Center Campus	
<u>Additional Youth and Adult Educational Instruction</u>	
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

PROFESSIONAL PROFILE OF EMPLOYMENT

*SFRES= CFRES (School of Forest Resources and Environmental Science transitioned to College in 2019)

Michigan Technological University, CFRES, Houghton, MI <i>Research Assistant Professor</i>	2014 – present
Michigan Technological University, CFRES, Houghton, MI <i>Master of Forestry Degree Program Director</i>	2014 – present
Michigan Technological University, SFRES, Houghton, MI <i>Administrative Staff and Research Assistant</i>	2013- 2018
<ul style="list-style-type: none"> • SFRES Web and Social Media Liaison • Marketing and Recruiting projects/duties in between filled staff positions • SFRES Strategic Planning Surveys • Global Outlook on Forest Education IUFRO Surveys • Michigan Biomaterials Initiative kickoff 	
Michigan Technological University, SFRES, Houghton, MI	2013

<i>Assistant to the Director of Development and Outreach</i>	
Michigan Technological University, SFRES, Houghton, MI	2007
<i>Research Technician, Sirex Woodwasp/Emerald Ash Borer Detection Surveys</i>	
Texas Forest Service, Palestine, TX	2004-2005
<i>Forest Inventory and Analysis Forester II</i>	
Purdue University, Forestry and Natural Resources, West Lafayette, IN	2002
<i>Research Assistant, ecological mapping in northern Indiana</i>	
Purdue University, Forestry and Natural Resources, West Lafayette, IN	2002
<i>Lab Technician, Hardwood Tree Improvement & Regeneration Center</i>	
Eberhart Excavating, Mishawaka, IN	1999-2001
<i>Heavy Machinery Driver (tractors, skidders, articulated dump truck)</i>	
Notre Dame University, Department of Biological Sciences, South Bend, IN	1999-2000
<i>Mosquito Lab Technician, Insect Vector Ecology Laboratory</i>	

HONORS and AWARDS

MTU, Exceptional “Average of 7 Dimensions” Teaching Accomplishment	2017
Michigan Technological University CLT Instructional Award	2017
Curriculum Development and Assessment	
Dean’s Teaching Showcase Member, SFRES and the William G. Jackson	2017
Center for Teaching and Learning (February)	
Michigan Society of American Foresters	2016
Certificate of Appreciation for Dedication while serving as UP Chair	
Graduate School, MTU	2013
Dean’s Award for Outstanding Scholarship	
Graduate Student Council Research Poster Session, MTU	2006
Best Presentation, 3 rd Place	
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	2005
‘Best New Research Idea’ poster award	
Graduate Student Council Travel Grant, MTU	2005
FNR Summer Practicum, Purdue University, Iron River, MI	
“Biltmore Wings”	2003
Purdue University, West Lafayette, IN	2001-2003
Martell Scholarships	

PROFESSIONAL MEMBERSHIPS and AFFILIATIONS

Forest Stewards Guild, Professional Member	2019-present
North Central Forest Pest Workshop, Member at large	2019-2021
Women in Natural Resources, SFRES	advisor ’18-’19
Women in Natural Resources, SFRES	co-advisor ’17,’18, ’20
Ecosystem Science Center, SFRES	2013-present
Wood Protection Group, SFRES	2013-present

Society of American Foresters	2002-present
District 5 Representative, National Board of Directors	elected 2019, 2020-2023
Liaison to the Certification Review Board	
Executive Committee Member	
Washington DC 12-20; Virtual 5-20	
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-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

PROFESSIONAL SERVICE

Michigan Technological University

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

Ecosystem Science Center Research Grant Proposal Reviewer	2020
Ad Hoc Charter Committee	2019-2020
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

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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

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 Sustainability	2018-2019
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

Choice, Current Reviews for Academic Libraries	
<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

Women in Natural Resources Coffee Conversation, MSAF conference	2020
*planned – postponed due to covid-19	
Gabrielle Roberts, Houghton High School, Health Skills	2019
Microbiology lab training for medical lab science competition	
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	2017
Great Lakes Exploration Summer STEM Camp	
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'	2013
WUPCSMEE, June	
Lake Superior Youth Symposium, Presenter	2013

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

PROFESSIONAL DEVELOPMENT AND TRAINING

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 (12-16)	2019
Research Meeting and Tour, Koppers, Pittsburgh, PA (11-19)	2019
MTU, Advocates and Allies Workshop, NSF ADVANCE Program (10-17)	2019
MTU, CTL Workshop: Choosing and Using Media (10-17)	F 2019
MTU, Anishinaabemowin Distance Learning Session, Dr. Noodin (10-16)	2019
MTU, SFRES, Brown Bag Dialogue with Calvin Hartig	2019
“Recruitment and Retainment of/for Native American Students” (10-15)	
<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 ebitamang	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

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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, <u>ED5540 Foundations of Online Teachings</u> , 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

PUBLICATIONS and PRESENTATION CITATIONS

*Eberhart is maiden name

PEER REVIEWED PUBLICATIONS

19. Peterson, T. and Bal, T. 2020. Thimbleberry (*Rubus parviflorus*) and the gallmaker (*Diastrophus kincaidii*: Cynipidae:Hymenoptera): 30 years after reports in the Keweenaw Peninsula, Michigan. *Great Lakes Entomologist* (in review, April 2020)
18. Bal, TL, Schnieder, KE, Richter, DL. Decay of birdseye sugar maple (*Acer saccharum*) and curly red maple (*Acer rubrum*). *Wood and Fiber Science* (in review February 2020)
17. Bal, T. 2020. What does a ‘bee’ look like? A classroom drawing activity and historical representations highlight shifting perceptions and diversity of bees. *Insect Conservation and Diversity* (in review January 2020)
16. IUFRO-EFI-IFSA (International Union of Forest Research Organizations-European Forestry Institute- International Forestry Students’ Association) Report on Forest Sector Employment, Green Jobs, and Forest Education. Bal, T. and Sharik, T. (editors) (in review, January 2020)
15. Bal, T., Rouleau, M., Sharik, T., Wellstead, A. 2019. Enrollment Decision-making by Students in Forestry and Related Natural Resources Degree Programs Globally. *International Forestry Review* (accepted, in revisions, December 2019)
14. Bal, T. Maple Syrup Sweetens the Pot: How a Blended Learning Course Increases Student Engagement in Online Learning. *Journal of Ethnobiology* (in review, November 2020)
13. 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.
12. 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
11. 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
10. Sharik, T, Storer, A, Bal, T, Abbas, D. 2020. Education as a Driver of Change in US Forests and the Forest Sector. Edited by M. Dockery. Gen. Tech. Rep. U.S. Department of Agriculture Forest Service, Northern Research Station, Strategic Foresight Group. (in press)
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, 2017. 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

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3. Burmann, Kelly, and Bal. 2020. Formative interests and pathways to natural resources careers among historically underrepresented people. (in prep for *Society and Natural Resources*).
4. Schnieder, Bal, Brzeski. 2020. Silphid beetles as novel iDNA tool for measuring small mammal community biodiversity (in prep)
5. Myers, Bal, Storer, Dickinson. 2020. Review of Advances in Propagation of American Beech and their Application in Mitigation of Beech Bark Disease. (in prep for *Forest Ecology and Management*).
6. Peterson, T. and Bal, T. 2020. A Literature Review of Thimbleberry (*Rubus parviflorus*) pests and diseases and impacts in the Great Lakes Region. (in prep)
7. Musah, M., Chaterpal, M., Bal, T., Carter, A. Ghana's food security and policies: weaving the path of food sovereignty for national development. (in prep for *Journal of Peasant Studies*)
8. Xie, X. and Bal, T. Temperate hardwood better withstands decay even with leaching and weathering than commonly used tropical hardwood species. (in prep)
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12. Bal, T and Storer, A. Long Term Sugar Maple Management: Health, Growth, and Abundance in a Northern Hardwood Forest. (Revising for *The Forestry Chronicle*)

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14. 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.
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- *list does not include University or School news mentions for published articles or travel

PRESENTATIONS (presenter in Bold)

Invited Talks (starred *)	34
Presentations at Scientific Meetings	40+
Presentations to Communities (includes school groups, not all listed)	40+
Posters at Scientific Meetings	23

ORAL PRESENTATIONS IN ACADEMIA/PROFESSIONAL MEETINGS

59. **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, 2020. ***rescheduled for 2021***
58. **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, 2020. ***rescheduled for 2021***
57. **Bal, T.**, Katherine Schnieder, Kristin Brzeski 2020. Novel applications of iDNA tool for measuring small mammal community biodiversity via Silphid beetles. Northern Hardwoods Conference, Green Bay, WI June 16-18, 2020. ***rescheduled for 2021***
56. ***Bal, T.** Forest Health in the UP. Keynote Speaker. Michigan Society of American Foresters Conference, Grayling, MI. April 16, 2020. ***rescheduled for June 10, 2020***
55. **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.
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.
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.
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.
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.
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.*

INVITED PRESENTATIONS TO OTHER GROUPS

14. Beaudoin, S., and Bal, T (reviewer, academic sponsor). 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

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**, K., Bal, T, Brzeski, K. 2020. Silphid beetles as novel iDNA tool for measuring small mammal communities. Ecosystem Science Center Symposium, SURF Symposium, and Undergraduate Research Symposium
23. **Picard, K**, and Bal, TL. 2019. Taphole Maple Lumber: Exploratory Survey of Market Potential in Michigan. Michigan Forest Bioeconomy Conference. Grand Rapids, Michigan February 2019.
22. **Myers, AL**, Dickinson, YL, Bal, TL, Storer, AJ, Leutcher, B. 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, TL**. 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, TL**, Richter, DL, Heyd, R, Mech, R., Lint, S. The Search for Heterobasidion Rot Root in Michigan. North Central Forest Pest Workshop. Gaylord, MI. September 2016.
19. **Bal, TL**. 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, KL**, TB Bal, AJ Storer. 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 2015.

17. Cladas, KL, TB Bal, **AJ 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, TL**, AJ Storer, MF Jurgensen, DL Richter, MC Amacher. Assessment of Sugar maple dieback across the Great Lakes Region. Forest Health and Monitoring Workgroup Meeting, Tuscon AZ April, 2012
15. **Bal, TL**, AJ Storer, MF Jurgensen, DL Richter, MC Amacher. Sugar maple dieback in the Great Lakes Region. North American Forest Insect Work Conference, Portland, OR May, 2011.
14. **Windmuller ND**, AJ Storer, LM Nagel and TL Bal. Using the Ash Phloem Model in Real Stands. USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2010.
13. Bal, TL, **AJ Storer**, and LM Nagel. Ash Phloem Reduction Models Vary Among Species and Growing Conditions. USDA Interagency Research Forum on Invasive Species, Annapolis, MD, January 2009.
12. **Bal, TL**, AJ Storer, DL Richter, E Lilleskov. A Sticky Situation: Sugar Maple Dieback across the Landscape. Michigan Technological University, Graduate Student Council Research Colloquium, April 2009.
http://www.ashmodel.org/ecologylab/publications/Sugar_Maple_Poster2.ppt
11. **Eberhart, TL**, AJ Storer. Living with Emerald Ash Borer: Understanding Which Trees are Attacked First. Michigan Tech Ecosystem Science Center Graduate Research Forum, February 2007.
10. **Eberhart, TL** and AJ 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM Nagel. Living with Emerald Ash Borer: Modeling Phloem Reduction to Reduce Resource Availability. North Central Forest Pest Workshop, Pellston, MI October 2006.
4. **Eberhart, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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, TL**, AJ Storer, and LM 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.

GRADUATE STUDENT ADVISING

MASTER OF FORESTRY STUDENTS* – ADVISOR

Loewe, Angela	2020-2021	Price, Garret	2017-2018
Montgomery, Elizabeth	2019-2020	Johnson, Joe	2017-2018
Krause, E.	2019-2020	Martinchek, Justin	2016-2018
Mrozek, Shane	2019-2020	Peacock, Brian	2016-2017
Sigg, Casey	2019-2020	Raj, Jake	2016-2017
Krause, Liam (trans. MS)	2019	Halabut, Jacob	2016-2017
Prangly, Nathan*	2019-2020	Taylor, Joel	2016-2017
Hibner, Trenton*	2019-2020	Mantani, Steven	2016-2017
Hawley, Logan*	2018-2020	Gilmore, David	2015-2016
Choiniere, Michael	2018-2020	Perrier, Alexandra	2015-2016
Laux, Ashley	2018-2019	Kleiman, Shane*	2015-2016
Kamp, Lauren	2018-2019	Heikennen, Travis	2015-2016
Diedrich, Patrick	2018-2019	Dee, Stella	2015-2016
Goss, Ethan	2018-2019	Coval, Brodrick	2015-2016
Noack, Mirko	2018-2019	Semones, Darren	2015-2016
Myers, Seth	2018-2020	Rood, Michael	2015-2016
Suozzi, Kevin*	2018-2019	Shideler, Bryan	2014-2015
Kaiser, Coleman*	2018-2019	Scabia, Michael	2014-2015
Evans, Zachary	2018-2019	Perzynski, Kevin	2014-2015
Palmer, Jamal	2018-2019	Genther, Winona	2014-2015
Tyran, Doug	2018-2019	Modlin, Matt	2014-2015
Warmboe, Ryan	2018-2019	Travis, Ben	2014-2017
Fodor, Hunter	2017-2018	Pinti, Nathan	2014-2015
Bradsher, Jacob	2017-2018	Aksentowitz, Sean	2013-2015
Michaelson, Tristan	2017-2018		
Selan, Jeff	2017-2018		
Amundson, Jarrod	2017-2018		

*accelerated Master's of Forestry, unless noted w/ another degree confirmation

RESEARCH DEGREE – ADVISEES

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

*Schneider, Kath – MS	2020-2021	*Klemm, Jennifer – MS	2018-2020
Dolinski, Lindsey - MS	2019-2021	*Uykun, Cuma - MS	2017-2018
**Eskola, Joseph - MS	2019-2021	Selan, Jeff- MS	2018-2019
Ela, Raisa- PhD	2018-2020	Petras, Megan – MS	2016-2017
Myers, Ande- PhD	2017-2020	Cladas, Karen- MS	2014-2015
Burmann, Laura- MS	2018-2019	Klapperich, James- MS	2013-2015

STUDENT PROJECTS

Lindsey Dolinski, MS student, Forest Ecology and Management <i>Evaluation of fungal biocontrol of invasive barberry and buckthorn</i>	2020-current
Joseph Eskola, MS student, Forestry <i>Methodology evaluation of wood decay laboratory testing</i>	2019-current
CS 4760 – User Interface Design and Implementation (Collaboration with Pastel and Kitalong) <i>Backyard Berry App</i> student team advisor	Spring 2020
Tess Peterson, Insect Research Independent Study <i>A review of thimbleberry pests and future threats</i>	2019-current
Eva Granroth and Shion Terrell, Summer Youth Programs STEM Internship <i>Legacy effects of experimental silviculture on wild blueberry production</i>	2019-current
Siona Beaudoin, Lake Linden High School Intern 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>	2019-current
Raisa Carmen Ela, PhD student, Chemical Engineering <i>Innovative Sustainable Wood Preservatives from Pulp and Paper Industry Byproducts</i>	2019-current
Katherine Schneider, BS Applied Ecology and Environmental Science, Biotech <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>	2019-current
Jennifer Klemm, MS student, Forest Ecology and Management <i>Historical Maple Pollen Distribution in the Landscape and Human Influence</i> Spring 2019 - Ecosystem Science Center Research grant <i>“Overview of Acer saccharum in the Upper Peninsula of Michigan through the use of palynology and historical records”</i>	2018-current
Jamal Palmer <i>Assessment of Urban Trees of Michigan Tech’s Campus</i> (changed to coursework)	2018-2019
Andrea Myers, PhD Student, Forest Science <i>“Evaluating Beech Bark Disease Resistance or Persistence in Beech Trees and Beech Reintroduction to National Lakeshores in Michigan”</i>	2018-current
Jeffrey Selan, MS report, Forest Ecology and Management <i>“Are the Effects of Ecosystem N Saturation Induced by Chronic Simulated N Deposition Rapidly Reversible?”</i>	2018-2019
Laura Burmann, Master of Science in Forestry <i>“Formative Interests and Pathways to Natural Resources Careers among Historically Underrepresented People”</i>	2018-2019
Kaydi Picard <i>Evaluating Midwest Markets for Tapped Maple Wood</i> (withdrew)	2017-2019
Cuma Uykun: Master of Science, Forestry <i>“Above-ground biomass and carbon estimations and recommendations for forests in Turkey”</i>	2017-2018
Megan Petras; Master of Science, Forest Ecology and Management <i>“Effects of group selection with Yellow Birch (Betula alleghaniensis) retention on the understory and sapling layer in northern hardwood forests”</i>	2016-2017
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

STUDENT ASSISTANTS (undergrad & graduate)

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)

Interagency Forest Invasives Committee Meeting

Okemos, Michigan Spring 2019*, Fall 2019, Spring 2020

Biennial Conference on University Education in Natural Resources

University of Montana, Missoula (Zoom conf. due to COVID-19) 2020*

Stephen F Austin State University, Nacogdoches, Texas 2018*

International Maple Syrup Institute/North American Maple Syrup Council Conference

Concord, New Hampshire 2018

Levis, Quebec 2017

International Union Forest Research Organizations (IUFRO)

Freiburg, Germany (125th World Congress) 2017*

Salt Lake City, Utah 2014

<u>Upper Peninsula Teaching and Learning Conference</u> , Houghton, MI	2017, 19, 20
<u>Heterobasidion Root Disease Work Planning Meeting</u> (Forest Service FPL)	2015*
<u>Society of American Foresters National Conventions</u>	
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
<u>Society of American Foresters Chapter Conferences</u>	
Grayling, Michigan	2020*
Brainerd, Minnesota	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	2014*
Minoqua, Wisconsin	2013*
Traverse City, Michigan	2013
St Ignace, Michigan	2011*
<u>North Central Forest Pest Workshop</u>	
Lisle, Illinois	2019*
Gaylord, Michigan	2016*
Hartland, Michigan	2011*
LaCrosse, Wisconsin	2005*
<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*
<u>North American Forest Insect Work Conference</u>	
Portland, Oregon	2011*
Ashville, North Carolina	2006*
<u>Ecosystem Science Center Research Forum</u> , SFRES, Michigan Tech	'06*, '07*, '10*
<u>Entomological Society of America</u>	
San Diego, California	2007*
Indianapolis, Indiana	2006*
Fort Lauderdale, Florida	2005*
<u>Rapid Response Invasive Plant Intervention Team for the UP</u> Marquette, MI	2011

IUFRO-IFSA (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

WHITE PAPER DEVELOPMENT

- Bal, T.L. 2019. Biochar, Forest Health Impacts, and Circular Bioeconomy. Koppers, Inc. December, 2019
- Rudnicki, M., Bal, T., Dai, Q., Xie, X. 2019. Connor Sports Wood Flooring Competitiveness. July, 2019.
- Bal, T.L., Carter A., Hersh-Green, E. 2018. Invasive fruit fly: ecological and social sustainability impacts. USDA National Institute of Food and Agriculture. May 2018.

Private Consulting

- Wood Sample Analyses. *ISK Biocides*. May 2019
- Wood Sample Analyses. *ISK Biocides*. February 2019
- Wood Sample Analyses. *Koppers*. February 2019
- Wood Sample Analyses. *ISK Biocides*. November 2018
- Tree Ring Analysis to Age Apple Trees. *Eliason Law*. March 2014