

34th USDA COOPERATIVE RESEARCH FORUM ON INVASIVE SPECIES

Annapolis MD, February 24-26, 2026





TUESDAY AFTERNOON, FEBRUARY 24
POSTER SESSION – STEVEDORE'S I-II
3:00 – 6:00 PM

WEDNESDAY MORNING, FEBRUARY 25
OPENING SESSION – BALLROOM
8:15 – 10:00 AM

Moderator: Scott Myers, USDA APHIS PPQ, Buzzards Bay, MA

8:15 AM Welcome. **Scott Myers**, USDA APHIS PPQ, Buzzards Bay, MA. **Christie Trifone Millhouse**, North American Invasive Species Management Association (NAISMA), Monona, WI

MIKE MCMANUS MEMORIAL KEYNOTE PRESENTATIONS

- 8:30 AM** The Tree Species in Peril breeding program. **Jennifer Koch**
USDA Forest Service, Northern Research Station, Delaware, OH
- 9:15 AM** What parts of invasive species science and management can we leave to AI, and what parts will remain our job? **Jiri Hulcr**
University of Florida, Entomology and Nematology Department, Gainesville, FL

BREAK

10:00 – 10:30 AM

WEDNESDAY MORNING, FEBRUARY 25

RESEARCH REPORTS

10:30 – 11:50 AM

Moderator: Andreas Linde, University for Sustainable Development,
Eberswalde, Germany

- 10:30 AM** Implementing trapping networks with generic lures at ports-of-entry in southern Europe for early detection of non-native xylophagous species. **Alain Roques**
INRAE, Zoologie Forestière, Orléans, France
- 10:50 AM** Research progress on the Asian longhorned beetle infestation in South Carolina. **Courtney Johnson**¹, Lindsey Stone², Caleb Davis², R. Talbot Trotter³, Will Scheper², David Coyle², Kelly Oten¹
¹North Carolina State University, Raleigh, NC, ²Clemson University, Clemson, SC, ³USDA Forest Service, Northern Research Station, Hamden, CT
- 11:10 AM** Insights into understanding the brown spot needle blight epidemic affecting pine forests in the southern USA. **Jason Smith**¹, Kathy Smith², Nicolas Anger², John Riggins³
¹University of Mount Union, Alliance, OH, ²University of Florida, ³Oregon State University

11:30 AM Machine-learning-based classification of Callery pear across the Southeast United States. **Jess Hartshorn**¹, Kavi Raj Awasthi², Nilesh Timilsina², Federico Iuricich², Brook T. Russell²
¹ecoLogic, Dayton, OH, ²Clemson University, Clemson, SC

LUNCH

11:50 AM – 1:00 PM

WEDNESDAY AFTERNOON, FEBRUARY 25

INVASIVE PATHOGENS

1:00 – 2:40 PM

Organizer: Anna Conrad, USDA Forest Service, Northern Research Station, Delaware, OH

Moderator: Cameron McIntire, USDA Forest Service, Northeastern Area State and Private Forestry, Durham, NH

1:00 PM Pre-symptomatic chemical and spectral indicators of Dutch elm disease tolerance. **Avalon M. Miller**¹, Anna O. Conrad², Charles E. Flower², Nancy Hayes-Plazolles², Cornelia Wilson², and Cristina Rosa¹

¹The Pennsylvania State University, University Park, PA

²USDA Forest Service, Northern Research Station, Delaware, OH

1:20 PM Progress in efforts to reduce the impact of brown spot needle blight in loblolly pine. **Colton Meinecke**, Rhys A. Eshleman, Rowan Christopher, Zachary Bragg, Caterina Villari
University of Georgia, Athens, GA

1:40 PM Biosurveillance for native and invasive forest fungal pathogens in the U.S. through spore trapping. **Eliana Torres Bedoya**¹, J Ker¹, Isabel Munck², Thomas Macy³, Ryan Crandall⁴, Kyle Lombard⁴, Jeff R. Garnas⁵, Eric Morrison⁵, Enrico Bonello¹.

¹The Ohio State University, Columbus, OH, ²USDA Forest Service, Durham, NH,

³Ohio Department of Natural Resources, Columbus, OH, ⁴New Hampshire

Department of Natural & Cultural Resources, ⁵University of New Hampshire, Durham, NH

2:00 PM The development of tools for managing beech leaf disease.

Chad Rigsby, Andrew L. Loyd, Matthew A. Borden

Bartlett Tree Research Laboratories

2:20 PM Butternut canker susceptibility influenced by disease level and hybridization. **Anna Conrad**¹, Aziz Ebrahimi², James Warren³, Karl Fetter⁴, Carolyn Pike⁵, Caleb Kell², James McKenna⁶, Martin Williams⁷, Mojtaba Zamani Faradonbeh², Douglass F. Jacobs²

¹USDA Forest Service, Northern Research Station, Delaware, OH, ²Department of Forestry and Natural Resources, Hardwood Tree Improvement and Regeneration Center (HTIRC), Purdue University, West Lafayette, IN, ³USDA Forest Service, Northern Research Station, Burlington, VT, ⁴USDA Agriculture Research Service, Byron, GA, ⁵USDA Forest Service, State, Private, and Tribal Forestry, Eastern Region, Burlington, VT, ⁶USDA Forest Service, Northern Research Station, West Lafayette, IN, ⁷Natural Resources Canada, Canadian Forest Service, Atlantic Forestry Center, Fredericton, NB

BREAK

2:40 – 3:10 PM

WEDNESDAY AFTERNOON, FEBRUARY 25

INVASIVE PLANTS

3:10 – 4:50 PM

Organizer: Rima Lucardi, USDA Forest Service, Southern Research Station, Athens, GA

Moderators: Ashley Schulz & Elizabeth Esser, Mississippi State University, Mississippi State, MS

3:10 PM From SSRs to satellites: Tracking the Bradford pear invasion.

Marcin Nowicki¹, Shiwani Sapkota², Alina Pokhrel¹, David R. Coyle³, Denita Hadziabdic¹, William E. Klingeman¹

¹University of Tennessee, Knoxville, TN, ²University of Georgia, Athens, GA,

³Clemson University, Clemson, SC

3:30 PM Advancing our understanding of neophyte plant patterns and disturbance interactions in western forests. **Becky K. Kerns**¹, Nathan M. Wade², Claire M. Tortorelli², Andrew Grey²

¹USDA Forest Service, Pacific Northwest Research Station, Corvallis, OR, ²Oak Ridge Institute for Science and Education, Oak Ridge, TN

3:50 PM

Wavyleaf basketgrass (*Oplismenus undulatifolius*) invasion is associated with changes in soil microbial communities: implications for continued range expansion

Carrie Wu¹, Michael Fulcher², Craig Barrett³, Cynthia Huebner⁴

¹University of Richmond, Richmond, VA, ²USDA-ARS, Foreign Disease-Weed Science Research Unit, Fort Detrick, MD, ³West Virginia University, Morgantown, WV,

⁴Northern Research Station, USDA Forest Service, Morgantown, WV

4:10 PM

Harnessing the power of low coverage whole genome sequencing and herbaria to reconstruct the invasion history of a damaging invasive grass, *Microstegium vimineum*. **Craig**

Barrett¹, Cameron Corbett¹, Fernando Hernandez², Lauren Kosslow¹, Brandon T. Hendrickson³, Cynthia D. Huebner^{1,4}, Chih-Hui Chen⁵, Pan Li⁶, Bo Li⁷, Paul M. Peterson⁸, Wen-Bin Yu⁷, Kenji Suetsugu⁹

¹West Virginia University, Morgantown, WV, ²University of British Columbia, Vancouver, BC, Canada, ³University of Louisiana, Lafayette, Lafayette, LA, ⁴Northern Research Station, USDA Forest Service, Morgantown, WV, ⁵Endemic Species Research Institute, Jiji, Nantou, Taiwan, ⁶Zhejiang University, Hangzhou, Zhejiang, China, ⁷Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Menglun, Yunnan, China, ⁸Smithsonian National Museum of Natural History, Washington, DC, ⁹Kobe University, Kobe, Hyogo, Japan

WEDNESDAY EVENING, FEBRUARY 25

POSTER SESSION – STEVEDORE'S I-II

5:00 – 6:30 PM

WEDNESDAY EVENING, FEBRUARY 25

MIXER – ATRIUM

6:30 – 7:30 PM

THURSDAY MORNING, FEBRUARY 26
AREA-WIDE MANAGEMENT OF INVASIVE SPECIES
8:00 – 10:00 AM

Moderator: Hannah Broadley, USDA APHIS PPQ, Buzzards Bay,
MA

- 8:00 AM** P4: An invasives response plan in theory and in practice. **Kier Klepzig**¹, Kamal J.K. Gandhi²
¹Jones Center at Ichauway, Newton, GA, ²University of Georgia, Athens, GA
- 8:20 AM** Integrating landscape ecology into generic surveillance plans for bark- and wood-boring beetles. **Davide Nardi**, Davide Rassati, Lorenzo Marini
University of Padova, Italy
- 8:40 AM** Varying roles of environmental context in shaping the abundance and diversity of scolytines. **Manoj Pandey**, Kayla I. Perry, Samuel F. Ward
The Ohio State University, Columbus, OH
- 9:00 AM** New tools for exploring the distributions and forest impacts of pest species in the United States. **Katie Grong**¹, Randall Morin²
¹Purdue University, West Lafayette, IN, ²USDA Forest Service, Northern Research Station, Forest Inventory and Analysis (FIA), York, PA
- 9:20 AM** Investigating development of high-risk scolytine species along international trade routes: implications for invasion success
Thomas G. Paul¹, Christopher M. Ranger², Andrew M. Liebhold³, Samuel F. Ward¹
¹The Ohio State University, Columbus, OH, ²USDA-Agricultural Research Service, Wooster, OH, ³Czech University of Life Sciences Prague, Czech Republic
- 9:40 AM** Improving biodefense and biocontrol programs by characterizing incipient invasive plant microbiomes. **Michael Fulcher**, Desi Szarka, Riley Larkin
USDA-ARS, Foreign Disease-Weed Science Research Unit, Fort Detrick, MD

BREAK
10:00 – 10:30 AM

THURSDAY MORNING, FEBRUARY 26

RESEARCH REPORTS

10:30 – 11:50 AM

Moderator: Leigh Greenwood, The Nature Conservancy,
Missoula, MT

- 10:30 AM** Factors facilitating understory plant invasions in the aftermath of Emerald ash borer. Jack E. Hatajik¹, Marlyse C. Duguid², Mark A. Bradford², Sara E. Kuebbing², Claire E. Rutledge¹, **Elisabeth Ward¹**
¹Connecticut Agricultural Experiment Station, New Haven, CT, ²Yale University, New Haven, CT
- 10:50 AM** Coevolutionary history shapes preference and performance in hemlock woolly adelgids. **Nicholas Dietschler**, Mark C. Whitmore, Anurag A. Agrawal
Cornell University, Ithaca, NY
- 11:10 AM** Predator-prey ecology of the invasive *Adelges tsugae* and biological control agents system. **Anne C. J. Peter**, Scott Salom
Virginia Tech University, Blacksburg, VA
- 11:30 AM** Images are information and citation is conversation. **Rebekah Wallace¹**, Elizabeth Bittner², Charles Barger¹
¹University of Georgia, Center for Invasive Species and Ecosystem Health, Athens, GA, ²University of Texas at Arlington, Arlington, TX

LUNCH

11:50 – 1:00 PM

THURSDAY AFTERNOON, FEBRUARY 26

BIOLOGICAL CONTROL OF INVASIVE SPECIES

1:00 – 3:00 PM

Organizer & Moderator: Jeremy Andersen, University of
Massachusetts, Amherst, MA

- 1:00 PM** Invasion insights from biological control datasets. **Ashley N. Schulz**¹, Rima D. Lucardi², Nathan P. Havill³, Travis D. Marsico⁴
¹Mississippi State University, Mississippi State, MS, ²USDA Forest Service, Southern Research Station, Athens, GA, ³USDA Forest Service, Northern Research Station, Hamden, CT, ⁴Arkansas State University, State University, AR
- 1:20 PM** Progress towards the biological control of invasive knotweeds. **Jeremy Andersen**, Zachary Colby
University of Massachusetts, Amherst, MA
- 1:40 PM** Biological control of emerald ash borer and its impact on ash survival and regeneration: a 16 yr-field study in Michigan. **Jian Duan**¹, Toby Petrice², Therese Poland², Jeremy Andersen³, Christine Dodge⁴, Roy van Driesche³
¹USDA ARS Beneficial Insects Introduction Research Unit, Newark, DE, ²USDA Forest Service, Northern Research Station, East Lansing, MI, ³University of Massachusetts, Amherst, MA, ⁴USDA APHIS PPQ, Buzzards Bay, MA
- 2:00 PM** Host range testing of *Dryinus sinicus* shows it to be a promising candidate biological control agent for spotted lanternfly. **Hannah Broadley**¹, Xingeng Wang², Steven Sipolski¹, Corrine Losch¹, Caroline Schelleng^{1,3}, and Mari West^{1,3}
¹USDA, APHIS, Plant Protection and Quarantine, Science and Technology, Buzzards Bay, MA, ²USDA, ARS, Beneficial Insects Introduction Research Unit, Newark DE, ³University of Massachusetts, Amherst MA
- 2:20 PM** Evaluation of a North American dryinid for biocontrol of spotted lanternfly. **Alexandra Johnson**¹, Dana Terrill¹, Lisa Tewksbury¹, Jules Bentz¹, Dan Farnworth¹, Nick Durinzi², Carly Tribull³
¹University of Rhode Island Biocontrol Lab, Kingston, RI, ²SUNY College of Environmental Science and Forestry, Syracuse, NY, ³SUNY Farmingdale State College, Farmingdale, NY
- 2:40 PM** Behavioral and reproductive traits of *Dryinus sinicus* (Hymenoptera: Dryinidae), a promising biological control agent for spotted lanternfly. Spiro Schramm¹, Hannah Broadley², Joseph Kaser¹, **Xingeng Wang**¹
¹USDA ARS Beneficial Insects Introduction Research Unit, Newark, DE, ²USDA APHIS PPQ, Buzzards Bay, MA

BREAK

3:00 – 3:30 PM

THURSDAY AFTERNOON, FEBRUARY 26

RESEARCH REPORTS

3:30 – 5:10 PM

Moderators: Elizabeth Esser & Ashley Schulz, Mississippi State University, Mississippi State, MS

3:30 PM Advances in Molecular Diagnostics of Spongy Moth (*Lymantria dispar*). **Alex Wu**¹, Megan Doner¹, Brian Silva¹, Caroline Davock^{1,2}, Don Stewart³, Michel Cusson³

¹USDA APHIS PPQ, Buzzards Bay, MA, ²University of Massachusetts, Amherst, MA, ³Natural Resources Canada, Laurentian Forestry Centre, Québec, QC

3:50 PM Trunk injection treatments for control of beech leaf disease in natural stands of American beech. **Don Grosman**

Arborjet Inc., Woburn, MA

4:10 PM Identifying where and when to search for pest-resistant trees.

Radka Wildova, Jonathan Rosenthal

Ecological Research Institute, New Paltz, NY

4:30 PM Host response to polyphosphite (PP30) in beech leaf disease.

Andrew Miles¹, Enrico (Pierluigi) Bonello¹, Daniel Herms², Constance Hausman³

¹The Ohio State University, ²The Davey Tree Expert Company, ³Cleveland Metroparks, Cleveland, OH

CLOSING REMARKS

4:50 PM

Jennifer Koch, USDA Forest Service, Northern Research Station, Delaware, OH. **Christie Trifone Millhouse**, North American Invasive Species Management Association (NAISMA), Monona, WI

ACKNOWLEDGMENTS

PROGRAM COMMITTEE

*Nathan Havill, Elena Karlsen-Ayala, & Talbot Trotter
(USDA Forest Service), Jian Duan (USDA, ARS), Jess
Hartshorn (ecoLogic), Scott Myers (USDA, APHIS)*

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& Jodi Hougan (NAISMA)*

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