

Matthew T. Kasson

Division of Plant and Soil Sciences
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EDUCATION

2007 – 2012 Ph.D. in Plant Pathology, Pennsylvania State University, University Park, PA
2005 – 2007 M.S. in Forestry, University of Maine, Orono, ME
2003 – 2005 B.S. in Forest Ecosystem Science, University of Maine, Orono, ME
1998 – 2000 A.A.S. in Forest Recreation, Paul Smiths College, Paul Smiths, NY

PROFESSIONAL EXPERIENCE

06/17 – Present Interim Director, International Culture Collection of (Vesicular) Arbuscular Mycorrhizal Fungi (INVAM), Division of Plant and Soil Sciences, West Virginia University, Morgantown, WV

07/14 – Present Assistant Professor of Plant Pathology, Division of Plant and Soil Sciences, West Virginia University, Morgantown, WV

07/13 – 07/14 Senior Research Associate, Department of Plant Pathology, Physiology, and Weed Science, Virginia Tech, Blacksburg, VA. Co-Principal Investigator: Dr. Gary J. Griffin

- Phylogenetic resolution, morphological characterization, and efficacy of *Lecanicillium muscarium* and closely related entomopathogenic fungi as potential fungal biocontrols of the invasive hemlock wooly adelgid (*Adelges tsugae*) on *Tsuga* spp. in the eastern U.S.

07/12 – 7/13 Research Associate, Department of Plant Pathology, Physiology, and Weed Science, Virginia Tech, Blacksburg, VA. Advisor: Dr. Gary J. Griffin

- Role of *Fusarium solani* and other *Fusarium* spp. in thousand cankers disease of black walnut and resolve phylogenetic relationships between TCD-associated fusaria and ubiquitous fusaria associated with various canker diseases of eastern hardwood tree species.

08/07 – 06/12 Graduate Research Assistant, Department of Plant Pathology and Environmental Microbiology, The Pennsylvania State University, University Park, PA. Advisor: Donald D. Davis

- Efficacy, host range, and phylogenetics of *Verticillium nonalfalfae*, causal agent of Verticillium wilt of the invasive *Ailanthus altissima* and potential biological control; species introduction, migration, invasion, and growth patterns of *Ailanthus altissima* in the northeastern U.S., and phylogenetic diversity of fusaria cultivated by *Euwallaceae validus*, an invasive ambrosia beetle of *Ailanthus*, and other members of the genus *Euwallacea*.

- 5/05 – 8/07 Graduate Research Assistant, School of Forest Resources, University of Maine, Orono, ME. Advisor: William H. Livingston
- Conducted research exploring the relationships among beech bark disease, climate, radial growth response, and mortality of American beech in northern Maine, as well as the spatial distribution of *Neonectria* species associated with beech bark disease
- 12/04 – 1/05 Lab Technician, Department of Ecology and Evolutionary Biology, Stable Isotope Lab, Cornell University, Ithaca, NY. Lab P.I.: Jed Sparks
- 09/03 – 09/04 Field and Lab Technician, School of Forest Resources, University of Maine, Orono, ME and US Forest Service Northern Research Station, Penobscot Experimental Forest, Bradley, ME. P.I.: William H. Livingston and Laura Kenefic
- 12/03 Lab Technician, Boyce Thompson Institute for Plant Research (Affiliate of Cornell University), Stable Isotope Lab, Ithaca, NY. Lab P.I.: Jonathon Comstock.

AWARDS and HONORS

Recipient, Gamma Sigma Delta, WVU Chapter Junior Faculty Award of Merit

Recipient, WVU Division of Plant and Soil Sciences Researcher of the Year (2016)

Inductee, Gamma Sigma Delta, West Virginia Chapter (2016)

Nominee (not awarded), ORAU Ralph Powe Junior Faculty Award (2015)

PUBLICATIONS

Refereed Journal Articles

Kasson, M.T., Kasson, L.R., Wickert, K.L., Davis, D.D., Stajich, J.E., (2019). Genome Sequence of a Lethal Vascular Wilt Fungus, *Verticillium nonalfalfae*, Biological Control of the Invasive *Ailanthus altissima*. *Microbiology Resource Announcements*, (just-accepted).

Stauder, C.M., Nuss, D.L., Zhang, D.X., Double, M.L., MacDonald, W.L., Metheny, A.M. and **Kasson, M.T.**, (2019). Enhanced hypovirus transmission by engineered super donor strains of the chestnut blight fungus, *Cryphonectria parasitica*, into a natural population of strains exhibiting diverse vegetative compatibility genotypes. *Virology*, 528: 1-6.

Wickert, K.L., Metheny, A.M., Davis, D., Geiser, D., Wenzel, J.W., Planinsek, D. and **Kasson, M.T.**, (2018). First report of *Fusarium* stem canker on *Pyrularia pubera*, a rare native parasitic shrub in forests of southwestern Pennsylvania. *Plant Disease*, 102: 1852.

Li, Y., Ruan, Y., **Kasson, M.T.**, Stanley, E.L., Gillett, C.P., Johnson, A.J., Zhang, M. and Hulcr, J., (2018). Structure of the Ambrosia Beetle (Coleoptera: Curculionidae) Mycangia Revealed Through Micro-Computed Tomography. *Journal of Insect Science*, 18: 13.

Li, Y., Huang, Y.T., **Kasson, M.T.**, Macias, A.M., Skelton, J., Carlson, P.S., Yin, M. and Hulcr, J., (2018). Specific and promiscuous ophiostomatalean fungi associated with Platypodinae ambrosia beetles in the southeastern United States. *Fungal Ecology*, 35: 42-50.

Aoki, T., **Kasson, M.T.**, Berger, M.C., Freeman, S., Geiser, D.M., O'Donnell, K., (2018). *Fusarium oligoseptatum* sp. nov., a mycosymbiont of the ambrosia beetle *Euwallacea validus* in the Eastern US and typification of *F. ambrosium*. *Fungal Systematics and Evolution*, 1: 23-39.

Huang, Y.T., Kolarik, M., **Kasson, M.T.**, Hulcr, J., (2017). Two new *Geosmithia* species in *G. pallida* species complex from bark beetles in eastern USA. *Mycologia*, 109: 790-803.

Double, M.L., Nuss, D.L., Rittenour, W.R., Holásková, I., Short, D.P.G., **Kasson, M.T.** and MacDonald, W.L., (2017). Long-term field study of transgenic hypovirulent strains of *Cryphonectria parasitica* in a forest setting. *Forest Pathology*, 47(6).

Wickert, K.L., O'Neal, E.S., Davis, D.D., **Kasson, M.T.**, (2017). Seed Production, Viability, and Reproductive Limits of the Invasive *Ailanthus altissima* (Tree-of-Heaven) within Invaded Environments. *Forests*, 8: 226.

Bateman, C., Huang, Y.T., Simmons, D.R., **Kasson, M.T.**, Stanley, E.L. Hulcr, J., (2017). Ambrosia beetle *Premnobius cavipennis* (Scolytinae: Ipini) carries highly divergent ascomycotan ambrosia fungus, *Afroraffaelea ambrosiae* gen. nov. et sp. nov. (Ophiostomatales). *Fungal Ecology*, 25: 41-49.

Martin, D.K.H., Turcotte, R.M., Miller, T.M., Munck, I.A., Aćimović, S.G., Macias, A.M., Stauder, C.M. and **Kasson, M.T.**, (2017). First Report of *Diplodia corticola* Causing Stem Cankers and Associated Vascular Occlusion of Northern Red Oak (*Quercus rubra*) in West Virginia. *Plant Disease*, 101: 380-380.

Short, D.P., O'Donnell, K., Stajich, J.E., Hulcr, J., Kijimoto, T., Berger, M.C., Macias, A.M., Spahr, E.J., Bateman, C.C., Eskalen, A., Lynch, S.C., Cognato, A. I., Cooperband, M. F., Kasson, M.T., (2017). PCR Multiplexes Discriminate *Fusarium* Symbionts of Invasive *Euwallacea* Ambrosia Beetles that Inflict Damage on Numerous Tree Species Throughout the United States. *Plant Disease*, 101: 233-240.

Shang, W., Fan, S., Short, D., Cao, X., Zhang, H., **Kasson, M.T.**, Chen, Y., Hu X., (2016). Cochineal Scale (*Porphyrophora ningxiana*) Enhances *Fusarium* Wilt and Root Rot of Chinese Licorice Plant (*Glycyrrhiza uralensis*). *Austin Biol*, 1: 1016.

You Li, Y., Gu, X., **Kasson, M.T.**, Bateman, C. C., Guo, J., Huang, Y., Li, O., Rabaglia, R. J. and Hulcr, J. (2016). Distribution, Host Records, and Symbiotic Fungi of *Euwallacea fornicatus* (Coleoptera: Curculionidae: Scolytinae) in China. *Florida Entomologist*, 99:801-804.

Kasson, M.T., Wickert, K.L., Stauder, C.M., Macias, A.M., Berger, M.C., Simmons, D.R., Short, D.P., DeVallance, D.B. and Hulcr, J., (2016). Mutualism with aggressive wood-degrading *Flavodon ambrosius* (Polyporales) facilitates niche expansion and communal social structure in *Ambrosiophilus* ambrosia beetles. *Fungal Ecology*, 23: 86-96.

O'Donnell, K., Libeskind-Hadas, R., Hulcr, J., Bateman, C., **Kasson, M.T.**, Ploetz, R.C., Konkol, J.L., Ploetz, J.N., Carrillo, D., Campbell, A. and Duncan, R.E., (2016). Invasive Asian *Fusarium–Euwallacea* ambrosia beetle mutualists pose a serious threat to forests, urban landscapes and the avocado industry. *Phytoparasitica*, 44: 435-442.

Zhou, X., O'Donnell, K., Aoki, T., Smith, J., **Kasson, M.T.** and Cao, Z.M., (2016). Two novel *Fusarium* species that cause canker disease of prickly ash (*Zanthoxylum bungeanum*) in northern China form a novel clade with *Fusarium torreyae*. *Mycologia*, 108: 668-681.

Lynch, S. C., Twizeyimana, M., Mayorquin, J. S., Wang, D. H., Na, F., Kayim, M., **Kasson, M. T.**, Thu, P. Q. Bateman, C., Rugman-Jones, P., Hulcr, J., Stouthamer, R., and Eskalen, A. (2016). Identification, pathogenicity, and abundance of *Paracremonium pembeum* sp. nov. and *Graphium euwallaceae* sp. nov.- two newly discovered mycangial associates of the polyphagous shot hole borer (*Euwallacea* sp.) in California. *Mycologia*, 108: 313-329.

Short, D. P., Double, M., Nuss, D. L., Stauder, C. M., MacDonald, W., and **Kasson, M. T.** (2015). Multilocus PCR Assays Elucidate Vegetative Incompatibility Gene Profiles of *Cryphonectria parasitica* in the United States. *Applied and Environmental Microbiology*, 81: 5736-5742.

O'Donnell, K., Sink, S., Libeskind-Hadas, R., Hulcr, J., **Kasson, M.T.**, Ploetz, R.C., Konkol, J.L., Ploetz, J.N., Carrillo, D., Campbell, A., Duncan, R.E., Liyanage, P.N.H., Eskalen, A., Na, F., Geiser, D.M., Bateman, C., Freeman, S., Mendel, Z., Sharon, M., Aoki, T., Cossé, A.A., and Rooney, A.P. (2015). Discordant phylogenies suggest repeated host shifts in the *Fusarium – Euwallacea* ambrosia beetle mutualism. *Fungal Genetics and Biology*, 82: 277-290.

Montecchio, L., Faccoli, M., Short, D. P. G., Fanchin, G., Geiser, D. M., and **Kasson, M.T.** (2015). First Report of *Fusarium solani* phylogenetic species 25 associated with early stages of Thousand Cankers Disease on *Juglans nigra* and *Juglans regia* in Italy. *Plant Disease*, 99: 1183.

You, L., Simmons, D. R., Bateman, C. C., Short, D. P., **Kasson, M. T.**, Rabaglia, R. J., and Hulcr, J. (2015). New Fungus-Insect Symbiosis: Culturing, Molecular, and Histological Methods Determine Saprophytic Polyporales Mutualists of *Ambrosiodmus* Ambrosia Beetles. *PloS one*, 10: e0137689.

Kasson, M.T., O'Neal, E. S., and Davis, D. D. (2015). Expanded host range testing for *Verticillium nonalfalfae*: potential biocontrol agent against the invasive *Ailanthus altissima*. *Plant Disease*, 99: 823-835.

Baetsen-Young, A. M., Kaminski, J. E., **Kasson, M. T.**, and Davis, D. D. (2015). Insights into the Biology of as a Causal Agent of Thatch Collapse in Golf Turfs. *Crop Science*, 55: 2342-2351.

Kasson, M.T. Pollok, J.R., Benhase, E. B., and Jelesko, J.G. (2014). First Report of Seedling Blight of Eastern Poison Ivy (*Toxicodendron radicans*) by *Colletotrichum fioriniae* in Virginia. *Plant Disease*, 98: 995.

Kasson, M. T., Short, D. P. G., O'Neal, E. S., Subbarao, K. V., and Davis, D. (2014). Comparative Pathogenicity, Biocontrol Efficacy, and Multilocus Sequence Typing of *Verticillium nonalfalfae* from the invasive *Ailanthus altissima* and other hosts. *Phytopathology*, 104: 282-292.

Turcotte, R. M., Martin, D. K. H., Smith, P. M., **Kasson, M. T.**, and Rhodes, D. (2013). A Case Study: Walnut Twig Beetle, *Pityophthorus juglandis* Blackman (Coleoptera: Curculionidae: Scolytinae) in Bucks County, Pennsylvania. *Entomological News*, 123: 311-314.

Kasson, M.T., O'Donnell, K., Rooney, A.P., Sink, S., Ploetz, R.C., Ploetz, J.N., Konkol, J.L., Carrillo, D., Freeman, S., Mendel, Z., Smith, J.A., Black, A.W., Hulcr, J., Bateman, C., Stefkova, K., Campbell, P.R., Geering, A.D.W., Dann, E.K., Eskalen, A., Mohotti, K., Short, D.P.G., Aoki, T., Fenstermacher, K.A., Davis, D.D., Geiser, D.M. (2013). An inordinate fondness for Fusarium: Phylogenetic diversity of fusaria cultivated by ambrosia beetles in the genus *Euwallacea* on avocado and other plant hosts. *Fungal Genetics and Biology*, 56: 147-157.

Kasson, M.T., Davis, M.D., and Davis, D.D. (2013). The Invasive *Ailanthus altissima* in Pennsylvania: a Case Study Elucidating Species Introduction, Migration, Invasion, and Growth Patterns in the Northeastern U.S. *Northeastern Naturalist*, 20 (Monograph 10): 1–60.

Rebeck, J., Malone, M.A., Short, D.P.G., **Kasson, M.T.**, O'Neal, E.S. and Davis, D.D. (2013). First Report of Verticillium wilt caused by *Verticillium nonalfalfae* on tree-of-heaven (*Ailanthus altissima*) in Ohio. *Plant Disease*, 97: 999.

Snyder, A.L., **Kasson, M.T.**, Salom, S.M., Davis, D.D., Griffin, G.J., and Kok, L.T. (2013). First Report of Verticillium Wilt of *Ailanthus altissima* in Virginia Caused by *Verticillium nonalfalfae*. *Plant Disease*, 97: 837.

Kasson, M. T. and Livingston, W.H. (2012). Relationships among beech bark disease, climate, radial growth response and mortality of American beech in northern Maine, USA. *Forest Pathology*, 42: 199–212.

Kasson, M.T. and Livingston, W.H. (2009). Spatial distribution of *Neonectria* species associated with beech bark disease in northern Maine. *Mycologia*, 101: 190–195.

Pre-prints

Boyce, G., Gluck-Thaler, E., Slot, J.C., Stajich, J.E., Davis, W.J., James, T.Y., Cooley, J.R., Panaccione, D.G., Eilenberg, J., Henrik, H. and Macias, A.M., ..., **Kasson, M.T.**, (2018). Psychoactive plant- and mushroom-associated alkaloids from two behavior modifying cicada pathogens. *bioRxiv*, p.375105.

Patents

Jelesko, J. G., and Kasson, M. (2015). "Compositions and methods comprising *Colletotrichum* for controlling plant species." U.S. Patent Application No. 14/528,188 filed Oct 30, 2014 and published April 30, 2015.

INVITED PRESENTATIONS

Other Universities/Institutions

- 11/19/18 University of Central Florida, “Psychoactive Plant and Mushroom Alkaloids in Behavior-Modifying Cicada Pathogens in the Fungal Genus *Massospora* (Zoopagomycota)” Biology Seminar Series.
- 10/24/16 The Pennsylvania State University, Department of Plant Pathology and Environmental Microbiology. “Exploring Fungal Diversity, Fidelity, and Farming in Subsocial Fungivorous Millipedes.” Fall Seminar Series.
- 12/03/15 University of Maine, School of Forest Resources. “New perspectives on thousand cankers disease of black walnut.” Guest lecture for SFR 457/557 – Tree Pests and Disease.
- 10/09/14 Virginia Tech, Department of Entomology Series Seminar. “Discordant phylogenies suggest repeated host shifts in the *Fusarium-Euwallacea* ambrosia beetle mutualism.”
- 03/20/14 University of Florida, Entomology and Nematology Department, Spring 2014, Seminar Series. “Fusarium and insects: from plant pathogens to ambrosial mutualists.”
- 10/25/12 Philadelphia Botanical Club, Academy of Natural Sciences, Philadelphia PA. “The Invasive *Ailanthus altissima* in Pennsylvania: A Case Study Elucidating Species Introduction, Migration, Invasion, and Growth Patterns in the Northeastern U.S.”
- 03/29/11 West Virginia University, Plant Pathology and Environmental Microbiology Seminar Series. “Host specificity of *Verticillium albo-atrum* isolate PSU140: a potential biocontrol of the invasive tree-of-heaven (*Ailanthus altissima*).”

Departments at West Virginia University

- 10/18/18 Division of Plant and Soil Sciences, West Virginia University. Fall Seminar. “Exploring function in arthropod-associated fungi.”
- 02/06/15 Division of Forestry & Natural Resources, West Virginia University. Graduate Seminar. “Using *Verticillium nonalfalfae* as a fungal biocontrol of invasive tree-of-heaven.”
- 10/17/14 Entomology program, Division of Plant and Soil Sciences, West Virginia University. “Discordant phylogenies suggest repeated host shifts in the *Fusarium-Euwallacea* ambrosia beetle mutualism.”
- 10/06/14 Honors College, West Virginia University. Agricultural Biochemistry Orientation Class (AGBI 199). “Chalk talk: how I ended up in academia.”

Conferences/Meetings (Select)

- 02/28/18 Maryland Department of Agriculture, Western Maryland Pest Update, New Germany State Park, Grantsville, MD “Historic and emerging diseases affecting forested and landscape trees in Maryland and beyond.”
- 03/22/18 American Phytopathological Society Potomac Division Annual Meeting. Ocean City, Maryland. “Modern –Omics Approach to Describing Function in Symbiotic and Parasitic Fungi.”
- 03/23/18 American Phytopathological Society Potomac Division Annual Meeting. Ocean City, Maryland. “First report of *Fusarium* stem canker on *Pyralaria pubera*, a rare native parasitic shrub in forests of southwestern Pennsylvania.”
- 07/20/18 11th International Mycological Congress (IMC11). San Juan, Puerto Rico. “Discovery of psychoactive plant and mushroom alkaloids in early-diverging cicada pathogens.”
- 08/11/18 West Virginia Botanical Garden Summer Series. “Historic and Emerging Forest Pathogens in West Virginia and Beyond.”
- 09/07/18 36th Annual Meeting, NE-1333 Multistate Research Project. University Park, PA. “Field testing of Super hypovirus-donor strains of *Cryphonectria parasitica*.”
- 10/09/18 MAC-ISA Annual Meeting, Frederick, Maryland. “Historic and Emerging Diseases Threatening Northeastern Forests.”
- 08/06/17 West Virginia Botanical Garden Summer Series. “Beech Bark Disease: A Long Established Forest Disease in West Virginia Reaches Monongalia County.”
- 07/17/17 Mycological Society of America Annual Meeting. Special Session: Fungal-Insect Symbioses - From Invasives to Biocontrol. “Global diversity and fidelity of *Fusarium* symbionts among *Euwallacea* ambrosia beetles.”
- 06/20/17 11th North American Forest Ecology Workshop. Special Session: The Changing face of the northern forest: The ongoing legacy of beech bark disease. “A tale of two *Neonectria*: Incidence of *N. ditissima* and *N. faginata* on the Monongahela National Forest, West Virginia, USA.”
- 06/13/17 WVU Core Arboretum Nature Connection Series. “Backyard beetles: Using citizen science to uncover beetle biodiversity hidden in plain sight.”

- 03/24/17 American Phytopathological Society Potomac Division Annual Meeting. “Infidelity between *Euwallacea ambrosia* Beetles and Their *Fusarium* Partners Could Spell Trouble for Forest Health.”
- 01/11/17 The 28th USDA Interagency Research Forum on Invasive Species, Annapolis, MD Special session: special session honoring Dick Reardon, FHTET. “A decade of using *Verticillium nonalfalfae* as a biocontrol of the invasive *Ailanthus altissima* in the eastern U.S.”
- 06/03/16 North American Forest Insect Work Conference, Washington, DC. Special session: special session on Changing forests, imperiled habitats – the roles arthropods play. “All that we let in: exotic scolytine beetles, their fungal partners, and the diseases they cause.”
- 03/24/16 American Phytopathological Society- Potomac Division Annual Meeting, Richmond, VA. Symposium I: Pathogen Power: Integration of Biological Agents in Agricultural Systems. “A Series of Successes in Combating Invasive Trees, Noxious Natives, and Insect Pests.”
- 02/24/16 Maryland Department of Agriculture, Western Maryland Pest Update, New Germany State Park, Grantsville, MD. “Emerging diseases of Northern Red Oak in West Virginia and beyond.”
- 11/18/15 Joint Meeting of ASA-CSSA-SSSA-ESA, Minneapolis, MN. Section Symposium: Forest Entomology: Synergy from Symbiosis. “Post-invasion assessment of *Euwallacea* ambrosia beetles, their fungal partners, and the diseases they cause.”
- 09/22/15 Mid-Atlantic Cooperative Forest Health Protection Federal-State Cooperators Meeting, USDA Forest Service, Morgantown, WV. “Applied forest pathology and pest management in the Mid-Atlantic United States.”
- 02/25/15 Maryland Department of Agriculture, Western Maryland Pest Update, New Germany State Park, Grantsville, MD. “Current perspectives on Thousand Cankers Disease of black walnut.”
- 01/14/15 The 26th USDA Interagency Research Forum on Invasive Species, Jan. 13-16, 2015, Annapolis, MD. “Shaping our understanding and response to emerging forest pathogens: The *Fusarium* – *Euwallacea* mutualism.”
- 09/24/14 Mid-Atlantic Cooperative Forest Health Protection Federal-State Cooperators Meeting, USDA Forest Service, Morgantown, WV. “Applied forest pathology and pest management in the Mid-Atlantic United States.”

- 08/12/14 Joint Meeting of American Phytopathological Society and Canadian Phytopathological Society, Minneapolis, MN. Special Session: Destructive Tree Diseases Associated with Ambrosia/Bark Beetles: Black Swan Events in Tree Pathology. “New perspectives on thousand cankers disease of walnut.”
- 02/27/13 Maryland Department of Agriculture, Western Maryland Pest Update, New Germany State Park, Grantsville, MD “Verticillium wilt of the invasive *Ailanthus altissima*: a potential biocontrol for the Mid-Atlantic.”
- 03/15/12 Maryland Invasive Species Council Meeting bimonthly meeting, Annapolis, MD. “Efficacy, host specificity, and phylogenetic placement of *Verticillium albo-atrum* isolate PSU140: Risk analysis of a potential biocontrol of the invasive tree-of-heaven (*Ailanthus altissima*).”

GRANTS

P.I. Funded External Grants (Total: \$370,875.00)

- Kasson, M.T. Evaluation of the origin, epidemiology, and fungicide use in controlling *Diplodia corticola*, a new pathogen of red oak. USDA, APHIS. 9/13/2018 – 9/12/2019. Total: \$10,000.00.
- Kasson, M.T. Delimitation and role of *Diplodia corticola* in oak decline and associated mortality in the Mid-Atlantic U.S. USDA Forest Service. 8/15/2018 – 8/14/2020. Total: \$67,184.00
- Kasson, M.T. Large Scale Deployment and Enhanced Formulation of the Regionally Successful Verticillium Biocontrol of the Invasive *Ailanthus Altissima*. USDA, APHIS. 9/30/2016 – 9/29/2019. Total: \$134,316.00
- Kasson, M.T. Hypovirus field test of a “Super Donor” formulation of the chestnut blight fungus. Ohrstrom Foundation. 7/01/2017 – present. Total: \$45,000.00.
- Kasson, M.T. Using Fungi to Manage Tree of Heaven and Elongate Hemlock Scale 7/01/2016 – 6/30/2019. Total \$18,000.00.
- Kasson, M.T. Culture-independent approaches to help corroborate culture-based studies of thousand cankers disease of black walnut in the eastern U.S. USDA Forest Service. 8/04/2015 – 12/31/2017. Total: \$30,000.00
- Kasson, M.T. Biology, ecology, and efficacy of an insect pathogen, *Lecanicillium muscarium* and closely related *Lecanicillium* spp., as a potential fungal biological control of the invasive hemlock woolly adelgid (*Adelges tsugae*) on eastern hemlock (*Tsuga canadensis*). USDA Forest Service. 1/01/2015 - 12/31/2017. Total: \$66,375.74.

Co-P.I. Funded External Grants (Total: \$496,555.00.00)

Kasson, M.T. IRCN: Coordinating research on bark beetle - fungal interactions in South Africa and the U.S. NSF DEB. 09/01/18 – 08/31/23. Total: \$496,555.00.

Current Hatch and State Projects

Kasson, M.T. and McDonald W. NE1833: Biological Improvement of Chestnut through Technologies that Address Management of the Species and its Pathogens and Pests (10/01/18 – 09/30/23)

Kasson, M.T. and McDonald W. Biology and Management of Oak Wilt and Other Forest Diseases (02/01/1997 – 09/30/2020).

TEACHING

Courses Taught

Wood Science 351 Forest Products Protection, 4 credits, Spring semesters even years (2016)

Plant Pathology 401 General Plant Pathology, 4 credits, Fall semesters (since 2017)

Plant Pathology 470 Forest Pest Management, 4 credits, Spring semesters (since 2015)

Plant Pathology 471 Urban Tree and Shrub Health, 1 credit, Spring semesters (2015, 2017)

Plant Pathology 593A SPTP: Advanced Plant Disease Diagnoses, 1 credit, Fall semester 2015

Guest Lectures

One lecture biennially since 2017, *Applied and Environmental Microbiology 401* (Environmental Microbiology), Fungal Biology.

One lecture annually since 2017, *Agronomy 120* (Principles of Agroecology), Fungi for biocontrol

One lecture biennially since 2016, *Genetics 521* (Basic Concepts of Modern Genetics), Tutorial on using Molecular Evolutionary Genetics Analysis (MEGA), software for conducting statistical analysis of molecular evolution and for constructing phylogenetic trees

One lecture biennially since 2014, *Plant Pathology 503* (Mycology), Ambrosia beetle-fungus symbiosis.

Advising and Mentoring

Current Graduate Students – Major Professor

Elaina Spahr, Ph.D. student in Genetics and Developmental Biology (2016-present)

Kristen Wickert, Ph.D. student in Plant Pathology (2016 – present)

Amy Metheny, M.S. student in Plant Pathology (2017-present)

Cameron Stauder, Ph.D. student in Plant Pathology (2017 – present)

Angella Macias, Ph.D. student in Plant Pathology (2017 – present)

Savannah Haines, M.S. student in Plant Pathology (2018-present)

Former Graduate Students – Major Professor

Kristen Wickert, M.S. student in Plant Pathology (Graduated April 2016)

Cameron Stauder, M.S. student in Plant Pathology (Graduated December 2016)

Matthew Berger, M.S. student in Plant Pathology (Graduated May 2017)

Angella Macias, M.S. student in Plant Pathology (Graduated December 2017)

Greg Boyce, Ph.D. in Genetics and Developmental Biology (Graduated December 2017)

Former Postdoctoral Researchers

Dr. Greg Boyce, 2017-2018

Dr. Dylan Short, 2014-2015

Current /Former Graduate Students – Committee Member

Samuel Eddy, Ph.D. student in Chemistry (2018-present)

Rachel Brooks, Ph.D. student in Plant Pathology, Physiology, and Weed Science (Virginia Tech) (2017-present)

Samantha Fabian, M.S. student in Genetics and Developmental Biology (2016 – present)

Rene Miller, M.S. student in Applied and Environmental Microbiology (2016 – present)

Johannes van der Linde, Ph.D. student in Microbiology (Forestry and Agricultural Biotechnology Institute, University of Pretoria) (2016-2018)

Undergraduate Researchers Mentored

Nicole Utano, independent research project (2017-present)

Brailey Burke, independent research project (2017)

Lori Koenick, independent research project (2015-2016)

Undergraduate advisees

FRESHMAN ADVISEES	SOPHOMORE ADVISEES	JUNIOR ADVISEES	SENIOR ADVISEES
	1		1

SERVICE

West Virginia University Activities

College Committees/Organizations

- 2015 – present Judge, Davis College’s Graduate Research and Creative Scholarship Day
- 2015 – present Member, Davis College WVAFES Publication Committee
- 2018 – 2019 Secretary, West Virginia Chapter of the Honor Society of Agriculture, Gamma Sigma Delta
- 2017 – 2018 Treasurer, West Virginia Chapter of the Honor Society of Agriculture, Gamma Sigma Delta
- 2016 – 2017 Historian, West Virginia Chapter of the Honor Society of Agriculture, Gamma Sigma Delta
- 2016 – 2017 Member, Davis College 150th Anniversary Committee

Divisional Committees

- 2018 – present Committee member, Graduate student stipend committee
- 2016 – present Committee member, Greenhouse Manager Search Committee
- 2016 – present Committee member, AEM Curriculum Committee
- 2014 – 2015 Committee member, Horticulture Faculty Search Committee
- 2014 – 2015 Committee member, Microbiology Faculty Search Committee

Local and State Service Activities

Backyard Beetles West Virginia (#backyardbeetleswv). Initiated a citizen science program called Backyard Beetles WV in WVU’s Core Arboretum to catalog bark and ambrosia beetle biodiversity. Coupled with the Arboretum’s Nature Connection Series titled “Backyard beetles: Using citizen science to uncover beetle biodiversity hidden in plain sight.”

WVU Child Learning Center's Bug Week; Participated in WVU Child Learning Center's Bug Week on June 22, 2016 along with two of my grad students, which included visiting three of the toddler classrooms and showing them various arthropods including Madagascar hissing cockroaches, vinegaroons, and American giant millipedes. Participating children were permitted and encouraged to pet and hold the cockroaches and millipedes.

Identification of fungi and plant diseases (2014-present) for:
USDA Forest Service; The West Virginia Department of Agriculture; and The Cooperative Extension Service; and citizens of Maryland, Pennsylvania, Virginia and West Virginia.

West Virginia - Day to Serve; developed and implemented a project on 10/8/2015 at the WVU Child Learning center entitled "I can identify ten trees today." We worked with 4-5 year-old preschool students (about 75 from four classrooms) to tape and mount pressed leaves of ten native tree species into pre-printed booklets containing names and associated facts.

National and International Service Activities

Editorial Appointments

- 2018 – present Associate Editor (area of fungal biology, biocontrol, and forest pathology),
Phytopathology
2014 – present Associate Editor (Insect-Symbiont Interactions), Environmental Entomology

Professional Societies

- 2018 – 2019 2019 Regional Project NE1833 Meeting Chair: Biological Improvement of Chestnut through Technologies that Address Management of the Species and its Pathogens and Pests
2018 – 2019 Vice President, American Phytopathological Society- Potomac Division
2018 – 2019 Co-organizer of 2019 special symposium proposal titled "Animal-associated fungi: from parasitism to mutualism," for the 2019 Mycological Society of America annual meeting in Minneapolis, MN, USA.
2017 – 2018 Secretary, American Phytopathological Society- Potomac Division
2017 – 2018 Organizing committee for the 2018 American Phytopathological Society- Potomac Division Meeting March 21-23 in Ocean City, MD.
2016 – 2017 Local arrangements committee for the 2017 American Phytopathological Society- Potomac Division Meeting March 22-24 in Morgantown, WV
2016 Served as a judge for graduate student oral presentations at the American Phytopathological Society- Potomac Division Meeting March 24, 2016 in Richmond, VA.
2013 – 2014 Co-organizer and co-moderator of an APS special session "Destructive Tree Diseases Associated with Ambrosia/Bark Beetles: Black Swan Events in Tree Pathology" for the Joint Meeting of American Phytopathological Society and Canadian Phytopathological Society, Minneapolis, MN.
2012 – 2013 Chair, American Phytopathological Society, Forest Pathology Committee.
2012 – 2013 Co-organizer of 2013 Forest Pathology Field Trip for the APS Meeting in Austin, TX.
2011 – 2012 Vice-chair, American Phytopathological Society, Forest Pathology Committee.

2011 – 2012 Co-organizer and co-moderator of an APS special session “Thousand Cankers Disease: A Threat to Eastern Black Walnut Throughout Its Native Range and Beyond” for the 2012 Annual Meeting of American Phytopathological Society, Providence, Rhode Island.

Peer Review of Journal Articles

2018 Seven journals, 12 articles
2017 Ten Journals, 20 articles
2016 Ten journals, 14 articles
2015 Four journals, 5 articles
2014 Five journals, 5 articles

Peer Review of Grants

Joint NSF-USDA/NIFA Proposal (2016)
USDA-NIFA Small Business Innovation Research Program Phase I (2015)