2017 Research Award Winners

Emory G. Simmons Research Award: Michael Fulcher

The Emory Simmons Research Award supports members of the Mycological Society of America for the study of classification of dematiaceous anamorphs of ascomycetes

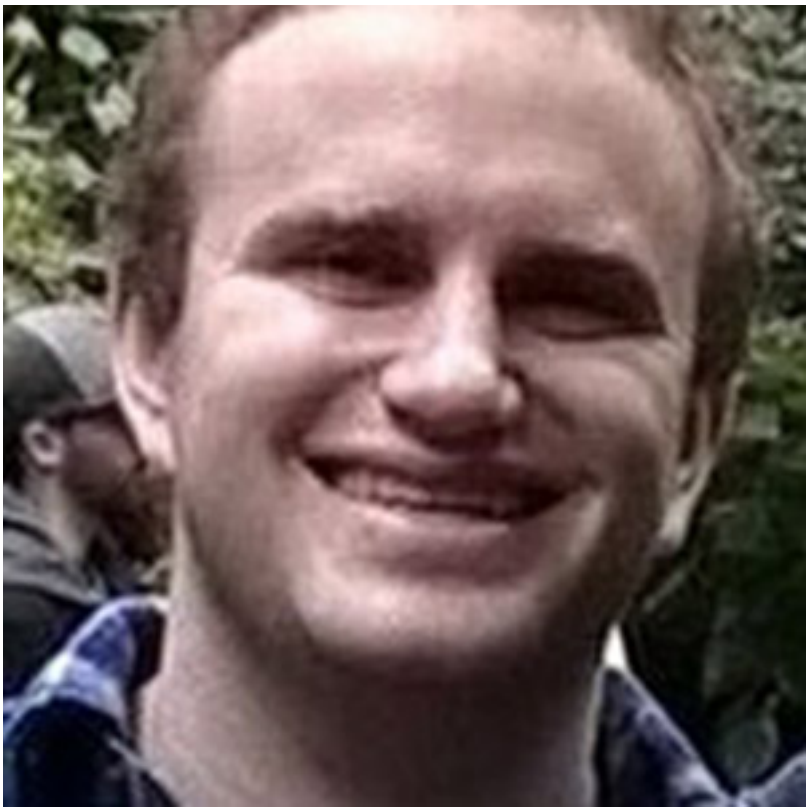
Michael Fulcher is a graduate student at Cornell University studying plant pathology under Dr. Gary Bergstrom. His current research focuses on the ecology and population biology of plant pathogenic fungi that infect wheat and other grasses. The Emory Simmons Award will support an investigation of genomic diversity within the *Alternaria infectoria* species-group. Michael received a B.Sc. in Environmental Horticulture from Virginia Tech, where his work in the Virginia Plant Disease Clinic inspired him to pursue an interest in mycology and plant pathology.

Forest Fungal Ecology Research Awards

This award supports ecological research by a postdoctoral, graduate or undergraduate student, examining fungal interactions in old growth forests or other unique or

endangered ecosystems. Studies should address innovative approaches to examining fungal systems or interactions of individuals, or groups of fungi, with hosts or substrates in old growth forest or other sensitive ecosystems

Postdoctoral Forest Fungal Ecology Award: Aaron David



Aaron David grew up in the Chicago suburbs, and discovered his passion for ecology as an undergraduate at Washington University in St Louis. He did his Ph.D. work at the University of Minnesota with Drs. Eric Seabloom and Georgiana May where he was first introduced to mycology while studying fungal endophytes of invasive and native beachgrasses of the Pacific Northwest Coast. Currently, Aaron is a postdoc at the University of Miami working with Drs. Michelle Afkhami and Christopher Searcy. He is broadly interested in understanding how the effects of symbiotic organisms, particularly fungi, scale up to affect host population dynamics. His current work focuses on the role of soil microbial communities in maintaining viable populations of endangered plant species endemic to the imperiled Florida scrub ecosystem.

Postdoctoral Forest Fungal Ecology Award: Nicola J. Day

Nicola Day grew up in Christchurch, New Zealand, where she received her B.Sc. from the University of Canterbury and M.Sc. from Lincoln University. She moved to Ontario, Canada, to do her Ph.D. exploring plant-soil feedbacks and root-associated fungal communities during non-native species invasions at the University of Guelph. Nicola has been a Postdoctoral Fellow at Wilfrid Laurier University since 2015. Her current research focuses on understanding the impacts of fire on soil fungal communities and the ecological roles of heat-resistant fungi in boreal forests of the Northwest Territories, Canada. Through this, she hopes to contribute to our understanding of how climate change-induced changes to the fire regime may impact ecosystem function in high latitude regions with fungal-dominated systems. She is honoured to receive this award from the MSA.

Postdoctoral Forest Fungal Ecology Award: Adriana Corrales

Adriana Corrales, originally from Colombia, received her bachelor's degree in forest engineering from the National University of Colombia at Medellín in 2004. She first became interested in fungi while working on her undergraduate thesis that focused on the morphology of the spores of ectomycorrhizal fungi associated with *Quercus humboldtii* in Colombia. She completed her Ph.D. in Plant Biology at the University of Illinois at Urbana-Champaign in 2016. Her dissertation focused on studying the ectomycorrhizal association of the tree *Oreomunnea mexicana* (Juglandaceae) in a tropical montane forest in western Panama. She also studied the microbial mediated mechanisms involved in facilitating the formation of *Oreomunnea* monodominant forests. In 2016, Adriana was awarded the Ewel Postodoctoral Fellowship and joined Dr. Matt Smith's Lab at the University of Florida where she is studying the evolution of ectomycorrhizal associations in tropical Juglandaceae species in Central America and South East Asia.

Forest Fungal Ecology Award: **Kat Sweeney**

Kat is a PhD student in the department of Plant Pathology at the University of Minnesota in Dr. Jenny Juzwik's lab. After receiving an MS from Oregon State University in 2013, Kat went on to become a Biology and Botany instructor at Framingham State University in MA. To complete her PhD, Kat returned to UMN in the fall of 2015. For her dissertation, Kat studies the histopathology of rapid Ohia decline (ROD) on the Big Island in Hawaii. In the next two years Kat will do field inoculations of Ohia trees on the Big Island to gain a baseline understanding of how the ROD fungus moves through its tree hosts. Kat's interests and expertise are in fine-tuning microtechniques to image fungi *in planta*. Kat also teaches youth groups and other public audiences about topics in mycology such as wood decay and wild mushroom identification.

Forest Fungal Ecology Award: Korena Mafune

Korena Mafune received her B.S. in Restoration Ecology and Environmental Horticulture from the University of Washington in 2013. She has always been passionate about Washington's beautiful forests and a bit stubborn about staying in her home state. So directly upon completion of her B.S., she applied and was accepted to UW's School of Environmental and Forest Sciences (SEFS) graduate program. She completed her M.S. in 2015 and is now in her 2nd year of her PhD research in SEFS. She works closely with Drs. Daniel and Kristiina Vogt, who run the interdisciplinary Vogt Lab of Ecosystem and Conservation Ecology. Her master's and current PhD research focus on canopy soils developing on branches of *Acer macrophyllum*, located in Washington State's old-growth temperate rainforests. She is particularly interested in exploring the host tree's adventitious rooting network, while determining if their fungal associates act as adaptive facilitators to climatic extremes. Her current project includes implementing throughfall manipulations to canopy and forest floor soils in Olympic National Park, while monitoring phosphorus and nitrogen fluxes, soil moisture characteristics, and fungal community structure.

Forest Fungal Ecology Award: Ryan B. Stephens

Ryan received his undergraduate and master's degree from the University of Wisconsin - Stevens Point, where he studied small mammal community ecology in natural plant communities of Wisconsin. He is currently a PhD candidate at the University of New Hampshire working in Dr. Rebecca Rowe's lab. Upon starting field work for his PhD, investigating small mammal community ecology in the White Mountains of New Hampshire, he realized that truffles were a major food source for small mammals. After a field survey of sporocarps, he and a crew of undergraduates discovered a number of new truffle species and found that truffles are extremely abundant in the northeastern US. Ryan's dissertation research investigates the factors that contribute to truffle production in the Northeast and how small mammal community dynamics influence the dispersal of mycorrhizal spores.

Forest Fungal Ecology Award: Elle Bowd

Elle Bowd is a PhD student studying at the Australian National University in Canberra, Australia. In 2014, Elle completed an undergraduate degree in Environmental Science: Wildlife and Conservation Biology at Deakin University in Melbourne, Australia. Following this, in 2015 she was awarded a first class honors for her work in examining how Mountain Ash forest floristics respond to disturbance. Succeeding her previous work, and pursuing passions for ecology and biodiversity conservation, Elle's PhD research investigates the succession and effect of disturbances: fire and clear-fell logging on fungal communities within Mountain Ash forests in the Victorian Central Highlands. Her research will provide important insights into land management and the conservation of these important communities.

Translational Mycology Postdoctoral Award: Mia Maltz

Mia Maltz studied at the University of California, Irvine where she received her Ph.D. in Ecology and Evolutionary Biology, with an emphasis on Ecological Restoration and Fungi. Mia's dissertation work in Kathleen Treseder's Lab of Fungi, Ecosystems, and Global Change looked at the effects of habitat fragmentation on fungal community composition and function. In addition, she evaluated methods for restoring mycorrhizal fungal function within degraded landscapes and documented how restoration techniques affect fungi. Moreover, findings from her research have already been used by land managers and directly incorporated into restoring degraded landscapes.

Mia has been an active MSA member since 2009, and her efforts led to the initiation of MSA's Student Section, as well as the MSA Diversity and Inclusion Committee. Mia is currently a Postdoctoral Scholar, co-advised by Mike Allen and Edie Allen, exploring the potential for *Ustilago* species to control exotic annual brome grasses. Mia investigates dispersal limitations and host specificity dynamics for this fungal pathogen, and examines constraints and challenges associated with promoting this fungal pathogen as a biocontrol of exotic grasses in degraded ecosystems.

Mia is interested in how microbes mediate important biogeochemical reactions relevant to global change, especially within extreme environments. Mia's collaborative postdoctoral research, advised by Emma Aronson in the Department of Plant Pathology and Microbiology at UC Riverside, investigates fungal geobiological weathering of nitrogen from the deep lithosphere to better understand feedbacks between global change and ecosystem processes at multiple scales.

Translational Mycology Postdoctoral Award: Tanya Cheeke

Tanya Cheeke did her PhD work with Dr. Mitch Cruzan at Portland State University, where she studied the effects of genetic variation in maize on arbuscular mycorrhizal fungi. She currently works in Jim Bever's lab at the University of Kansas where she is investigating the role of plant-soil feedbacks within the context of grassland restorations. Using a genomics approach, she is testing the efficacy of using mycorrhizal fungi isolated from remnant prairies to help native plants establish in invaded grasslands. By integrating cutting-edge metagenomics with manipulative field and greenhouse experiments she is evaluating the species interactions that govern plant and microbial community diversity in disturbed landscapes. Tanya is broadly interested in understanding how changing environments (e.g., genetic variation within a host, ecological disturbance) impact plant-associated microbial communities across scales. More information about her research can be found at www.tanyacheeke.com

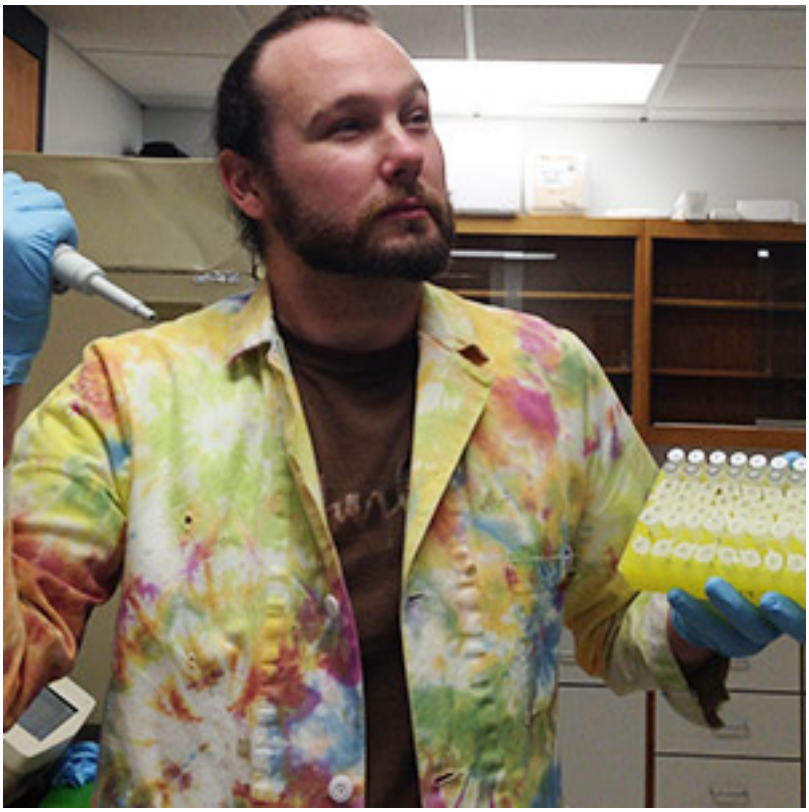
Translational Mycology Award: Andrea Bruce

Andi Bruce is a master's student at the University of Wisconsin-La Crosse, working in Dr. Todd Osmundson's lab in collaboration with Dr. Tom Volk. Andi earned her undergraduate degree at San Francisco State University in Environmental Studies with a concentration in Environmental Sustainability and Social Justice. Her love for mycology was sparked by an interest in the potential role for fungi in low-tech, small-scale bioremediation installments. Her thesis research aims to combine the enzymatic powers of both white rot and brown rot fungi to increase total degradation of diesel hydrocarbons in non-sterile soil.

Translational Mycology Award: Hannah Soukup

Hannah Soukup completed her B.S. in Biology at the University of Oregon in 2014. As an undergraduate researcher and later lab technician, she assisted the Roy lab with characterizing the xylariaceous fungi from Taiwan and Gabon, Africa. Hannah is currently working towards her M.S. at the Institute of Ecology and Evolution at the University of Oregon in the Roy lab. Her research focuses on the effects of prescribed fires in restored and remnant prairies of the Pacific Northwest on the soil fungal community, including general soil fungi and mycorrhizae associated with the dominant native bunchgrass *Festuca roemeri*.

Translational Mycology Award: Arthur Grupe



Arthur Grupe received his bachelor's in Botany from Humboldt State University in 2012 and his Masters from Humboldt State University with Dr. Terry Henkel in 2015. He is currently working on his PhD at the University of Florida with Dr. Matthew Smith. Arthur's dissertation focuses on the pecan truffle and pecan tree symbiosis. His work involves investigating management techniques to maximize pecan truffle colonization of pecan seedlings on a commercial scale, the influence of altering soil pH on the ectomycorrhizal community, determining mating gene distribution, and elucidating the systematics of the *Tuber lyonii* cryptic species complex.

Translational Mycology Award: Brooke Pickett

Brooke Pickett grew up in Los Angeles, CA and graduated with a B.S. in Environmental Science from UCLA. After graduation, I joined Dr. Emma Aronson's lab at UC Riverside to pursue a PhD in Ecology and continue the research I started as a restoration ecology intern at the National Park Service. My work focuses broadly on understanding how invasive grasses change the microbial composition of soils and how these changes might affect native plant growth and inform restoration protocols. My energy has shifted more recently to understanding the role of fungi (esp. AMF) in invasive grass legacies and restoration. Through my research, I have already established a partnership between the Santa Monica Mountain National Park Service ecologists, land managers, restoration specialists and researchers at UC Riverside, making it possible to directly apply the results of my restoration experiments, and other similar studies, to many more restoration projects. My hope is to extend this collaborative work model to other national parks, in an effort to disseminate the valuable information about invasion biology to ecologists, practitioners, and the public.

Clark T. Rogerson Student Award: Andrew Loyd

The Clark T. Rogerson Student Research Award supports student travel to herbaria and/or field sites to conduct research. Grants are available to undergraduate or graduate students who are members of the Mycological Society of America

Andrew Loyd is currently pursuing a PhD degree in the School of Forest Resources and Conservation at the University of Florida under the direction of Jason Smith and Brantlee Richter. Previously, Andrew received his M.S. degree from the Department of Plant Pathology at North Carolina State University where he worked on *Phytophthora* populations present in watersheds, and the risks involved when using this water for irrigation purposes at woody ornamental nurseries. Currently, Andrew is working on clarifying the taxonomy of *Ganoderma* species present in the Eastern United States. Specifically, he is interested in the functional differences between species that are traditionally “lumped” or mislabeled as the European taxon *G. lucidum.* Andrew is honored to receive the Clark T. Rogerson award, and will use it to travel to mycological herbaria on the East Coast where he will study and reannotate *Ganoderma* collections.

Salomon Bartnicki-Garcia Research Award: Teeratas Kijpornyongpan

The primary purpose of the Salomon Bartnicki-Garcia is to encourage continued participation in MSA by young mycologists who are working in the areas of biochemistry, genetics, and cell biology

Teeratas came to West Lafayette, Indiana, to start his graduate studies in Fall 2013 as a master student. He has been working with smut fungi and allied lineages in Ustilaginomycotina under the supervision of Dr. Cathie Aime. His M.S. project focuses on systematics and phylogenomics of Ustilaginomycotina. After finishing M.S. degree in Summer 2015, he continued pursuing for Ph.D. in the same lab. His dissertation attempts to investigate dimorphic mechanisms in Ustilaginomycotina. Fungal dimorphism is a phenomenon in which a fungus can grow both as yeasts and hyphae. Smut fungi display yeast growth during saprobic haploid stage and become filamentous and pathogenic after mating process. However, other allied lineages in Ustilaginomycotina display a variety of growth forms ranging from yeast, hyphal and dimorphic. He is now utilizing comparative genomics and molecular genetics approaches to investigate whether there is any core regulatory pathway of fungal dimorphism shared across lineages in the subphylum.

George W. Martin - Gladys E. Baker Research Award: Dr. Kiran R. Ranadive

The George W. Martin and Gladys E. Baker Research Award supports new or ongoing research in mycology by a recent-Ph.D. mycologist (preferably within 5 years of receiving the degree), who also has significant teaching commitments.

Dr. Kiran R. Ranadive M.Sc. B.Ed. CSIR JRF & NET, Ph.D. Assistant Professor of Botany at the Waghire College, Saswad since 2004 and also a recognized PG Teacher and M.Phil. Guide of S.P.P.U. Pune, also taught PG in Pune University. Dr.Kiran has a Masters degree in Botany, also got prestigious CSIR- JRF & NET Fellowship and teacher fellowship .Contributed 18 International and 4 National journal publications and 3 reference books to his credit, 5 are in pipeline (3 Floras and 2 Field Guides) .He is a member of more than 5 reputed National and International Societies including Mycological Society of America. He has contributed in 3 times in Marathi encyclopedia'Marathi Kumar Vidnyan Vishwakosh, TIFR, Mumbai'.Dr. Kiran has developed the first Indian Mycological website namely www.fungifromindia.com having more than 7500 records of Indian fungi for the first time,every species from this website is linked with the world reputed Mycobank website, which serves the best reference material for all researchers in the world. He has been popularizing the significance of Mycology through more than 15 All India radio programs on mycological subject.He gave more than 75 talks for various reputed institutions and Universities as a resource person.Recently he has been invited by IIT, Kharagpur to contribute in their National Digital Library Project(NDL) Government of India for Botanical Contribution.

John W. Rippon Research Award: Vacant

This award supports graduate student research, which employs innovative approaches to studying medically important fungi. Studies may be clinical in nature or may encompass various research areas, such as genetics, systematics, genomics, ecology, distribution, epidemiology, mechanisms of pathogenicity, life cycles, or other appropriate approaches to the study of medically important fungi.

A.H. & H.V. Smith Research Award: Dr. Alija Mujic

The primary purpose of the Alexander H. and Helen V. Smith Research Award is to encourage the study of specimens of fleshy Basidiomycetes and Ascomycetes collected by Alexander H. Smith and his associates. The Fund distributes grants-in-aid to be used towards covering the expenses of visiting the Smith Collection at the University of Michigan Herbarium and of working with the collections and materials

relating to them.

Dr. Alija Mujic is a postdoctoral associate at the University of Florida, Department of Plant Pathology, under the direction of Dr. Matthew Smith. Dr. Mujic's work in the Smith lab is focused upon ectomycorrhizal fungi of Patagonian Nothofagus forests. This work continues his interest in forest ecology, fungal diversity, and biogeography which were also central topics of his PhD at Oregon State University. The discovery of unknown fungal diversity is an interest which has driven Dr. Mujic to apply for the Alexander and Helen Smith award which will be applied toward the taxonomic study and next generation sequencing of Dr. Smith's type collections in the genus Rhizopogon.

Robert W. Lichtwardt Student Research Award: Danny Haelewaters

The Robert W. Lichtwardt Award is open to student members of the Mycological Society of America for research on fungi and organisms traditionally studied by mycologists that are symbiotic with arthropods (ranging from parasitic to mutualistic). Specific methods and research topics are unrestricted in the spirit of advancing our current understanding of the biology of the organism and the system of interest.

Danny Haelewaters is a graduate student in the lab of Dr. Donald H. Pfister. He studies microscopic ectoparasites of arthropod hosts, mostly beetles and flies. Born and raised in Belgium, he earned his undergraduate degree in Veterinary Medicine at the University of Antwerp and his Master's degree in Biology at Ghent University, where he started working with the enigmatic Laboulbeniales under the supervision of Dr. Annemieke Verbeken. After a short break, during which he lived in the pittoresque town of Chantemerle-les-Grignan in France, he joined the Department of Organismic and Evolutionary Biology at Harvard University. His graduate research has mainly focused on the Hesperomyces virescens species complex, a parasite of 30+ lady beetle species. For another project, he is interested in bat flies (Diptera), which are bloodsucking ectoparasites of bats. These parasites, in turn, can be host to Laboulbeniales fungi. Haelewaters will travel this summer to Panama, to capture bats, collect bat flies, find Laboulbeniales, and use a combination of trait data and molecular characters to answer the following questions. How host specific are bat fly-associated Laboulbeniales? Which functional traits of bat flies and their bat hosts are associated to infection by Laboulbeniales? And where do Laboulbeniales parasitizing bat flies fall within the current Laboulbeniales phylogeny?

Research Awards Committee: Peter Kennedy, Chair; Jolanta Miadlikowska; Tim James; Greg Mueller; Imke Schmitt; David Geiser, ex officio, Past Chair