# **ANNE PRINGLE**

### CURRICULUM VITAE

Letters & Science Mary Herman Rubinstein Professor Vilas Distinguished Achievement Professor University of Wisconsin-Madison Departments of Botany and Bacteriology anne.pringle@wisc.edu

## Education

Ph.D. Department of Botany and University Program in Genetics, Duke University. 2001. Advised by Drs. Janis Antonovics and Rytas Vilgalys.

A.B. Honors Biology, University of Chicago, with General Honors. 1993.

# **Employment**

Professor, Botany and Bacteriology, University of Wisconsin-Madison. 2017-present.

Associate Professor, Botany and Bacteriology, University of Wisconsin-Madison. 2015-2017.

Associate Professor, Organismic and Evolutionary Biology, Harvard University. 2008-2014.

Assistant Professor, Organismic and Evolutionary Biology, Harvard University. 2005-2008.

# Fellowships and Visiting Appointments

Charles Bullard Fellowship in Forest Research, Harvard Forest. 2014-2015.

Professeur Invité, Université de Nice Sophia Antipolis. Winter 2015.

Radcliffe Institute for Advanced Study Fellowship, Harvard University. 2011-2012.

Miller Institute for Basic Research in Science Research Fellowship, U.C. Berkeley. 2001-2004.

National Institutes of Health Graduate Fellowship in Genetics, Duke University. 1995-1997.

# Awards and Honors

- · Mid-Career Mycorrhiza Research Excellence Award, International Mycorrhiza Society. 2019.
- · National Geographic Explorer. 2018-present.
- · Letters & Science Mary Herman Rubinstein Professor, University of Wisconsin-Madison. 2018-present.
- · Fellow, Mycological Society of America. Awarded for contributions to mycology. 2018.
- · Vilas Distinguished Achievement Professor, University of Wisconsin-Madison. 2017-present.
- · Alexopoulos Prize for a Distinguished Early Career Mycologist, Mycological Society of America. 2010.
- · Perry Prize for Dissertation of Greatest Distinction, Department of Botany, Duke University. 2001.
- · Best Student Paper, Soil Ecology Section, Ecological Society of America Annual Meeting. 2000.

### AWARDS AND HONORS: TEACHING AND MENTORING

- · Phi Kappa Phi Honor Society, UW-Madison. Nominated by an undergraduate student. 2017.
- · Fannie Cox Prize for Excellence in Science Teaching, Harvard University. 2013.
- · Mendelsohn Excellence in Mentoring Award, Harvard University Graduate Student Council. 2011.

#### **ELECTED**

· President, Mycological Society of America. Four-year term as Vice-President, President-Elect, President, Past-President (2017-2021).

#### FOUNDING BOARD MEMBER AND VICE-PRESIDENT

· Mushroom Observer (mushroomobserver.org). A registered 510(c)3 nonprofit created to catalog fungal biodiversity. 2009-present.

# Manuscripts

- Wang, Y.-W., J. Hess, H. Elmore, S. Gonçalves, J. Golan, S.L. Harrow, A. Pringle. Draft. Recombination and rare heteroplasmy facilitate an escape from Muller's ratchet among mitochondria in natural populations of the fungus *Amanita phalloides*.
- Golan J., C.A. Adams, H. Cross, H. Elmore, M. Gardes, S.I. Glassman, S.C. Gonçalves, J. Hess, F. Richard, Y.-W. Wang, B. Wolfe, A. Pringle. Draft. Californian populations of the death cap *Amanita phalloides* use sex as a strategy to invade.
- Aguilar-Trigueros, C.A. et al., including A. Pringle. In review. Symbiosis shapes offspring size across the fungal kingdom. Science.
- Gentry, S., J.M. Lorch, J.S. Lankton, A. Pringle. In revision. Koch's postulates: Confirming Nannizziopsis guarroi as the cause of yellow fungal disease in Pogona vitticeps. Mycologia.

# Publications (available from pringlelab.botany.wisc.edu)

- Iapichino, M., Y.-W. Wang, S. Gentry, A. Pringle, A. Seminara. In press. A precise relationship among Buller's drop, ballistospore and gill morphologies enables maximal packing of spores within gilled mushrooms. Mycologia.
- Romero-Olivares, A.L., E.W. Morrison, A. Pringle, S.D. Frey. 2021. Linking genes to traits in fungi. Microbial Ecology doi.org/10.1007/s00248-021-01687-x
- Wang, Y.-W., J. Hess, J.C. Slot, A. Pringle. 2020. *De novo* gene birth, horizontal gene transfer and gene duplication as sources of new gene families associated with the origin of a symbiosis in the fungal genus *Amanita*. Genome Biology and Evolution 12:2168-2182.
- Oneto, D.L., J. Golan, A. Mazzino, A. Pringle, A. Seminara. 2020. Timing of fungal spore release dictates survival during atmospheric transport. Proceedings of the National Academy of Sciences (PNAS) 117:5134-5143.
- Adams, C.A., K. Zimmerman, K. Fenstermacher, M.G. Thompson, W. Skyrud, S. Behie, A. Pringle. 2020. Fungal seed pathogens of wild chili peppers possess multiple mechanisms to tolerate capsaicinoids. Applied and Environmental Microbiology 86:e01697-19.
- Vargas- Estupiñán N., S. Gonçalves, A.E. Franco-Molano, S. Restrepo, A. Pringle. 2019. In Colombia the Eurasian fungus *Amanita musc*aria is expanding its range into native, tropical *Quercus humboldtii* forests. Mycologia 111:758-771.
- Morrison, E.W., A. Pringle, L.T.A. van Diepen, A.S. Grandy, J.M. Melillo, S.D. Frey. 2019. Warming alters fungal communities and litter chemistry with implications for soil carbon stocks. Soil Biology and Biogeochemistry 132:120-130.
- Boynton, P.J., C.N. Peterson, A. Pringle. 2019. Superior dispersal ability can lead to persistent ecological dominance throughout succession. Applied and Environmental Microbiology 85:e02421-18.
- Lopez-Nieves, S., A. Pringle, H.A. Maeda. 2019. Biochemical characterization of TyrA dehydrogenases from Saccharomyces cerevisiae (Ascomycota) and *Pleurotus ostreatus* (Basidiomycota). Archives of Biochemistry and Biophysics 665:12-19.
- Hess J., I. Skrede, M. Chaib de Mares, M. Hainault, B. Henrissat, A. Pringle. 2018. Rapid divergence of genome architectures following the origin of an ectomycorrhizal symbiosis in the genus *Amanita*. Molecular Biology and Evolution 35:2786-2804.
- Bittleston L.S., C. Wolock\*, E.Y. Bakhtiar, X.Y. Chan, K.G. Chan, N.E. Pierce, A. Pringle. 2018. Convergence between the microcosms of Southeast Asian and North American pitcher plants. eLife 2018:7:e36741.

  \*undergraduate
- Morrison, E.W., S.D. Frey, L.T.A. van Diepen, A. Pringle. 2018. Simulated nitrogen deposition favors stress-tolerant fungi with low potential for decomposition. Soil Biology and Biogeochemistry 125:75-85.

- Hoeksema J.D., J.D. Bever, S. Chakraborty, V.B. Chaudhary, M. Gardes, C.A. Gehring, M.M. Hart, E.A. Housworth, W. Kaonongbua, J. Klironomos, M.J. Lajeunesse, J.F. Meadow, B. Milligan, B. Piculell, A. Pringle, M.A. Rúa, J. Umbanhowar, W. Viechtbauer, Y.W. Wang, G.W.T. Wilson, P.C. Zee. 2018. Evolutionary history of plant hosts and fungal symbionts predicts the strength of mycorrhizal mutualism. Communications Biology 1, Article Number 116.
- Seminara A., J. Fritz, M.P. Brenner, A. Pringle. 2018. A universal growth limit for circular lichens. Journal of the Royal Society Interface 15:20180063.
- Dickie I., J. Bufford, R. Cobb, M.-L. Desprez-Loustau, G. Grelet, P. Hulme, J. Klironomos, A. Makiola, M.A. Nuñez, A. Pringle, P. Thrall, L. Waller, N. Williams. 2017. The emerging science of linked plant-fungal invasions. New Phytologist 215:1314-1332.
- Golan, J., A. Pringle. 2017. Long-distance dispersal of fungi. Microbiology Spectrum 5(4):FUNK-0047-2016. (Was also bound for publication in: *The Fungal Kingdom*, ed. N.A.R. Gow and J. Heitman. ASM: Washington D.C.)
- Liu F., R.L. Chavez, S.N. Patek, A. Pringle, J.J. Feng, C.H. Chen. 2017. Asymmetric drop coalescence launches fungal ballistospores with directionality. Journal of the Royal Society Interface 14:20170083.
- Pringle A. 2017. Establishing new worlds: The lichens of Petersham. In *Arts of Living on a Damaged Planet*, eds. A. Tsing, H.A. Swanson, E. Gan, N. Bubandt. University of Minnesota Press.
- Levitis D., K. Zimmerman, A. Pringle. 2017. Is meiosis a fundamental cause of inviability among sexual and asexual plants and animals? Proceedings of the Royal Society B 284:20170939.
- Alim K., N. Andrew, A. Pringle, M.P. Brenner. 2017. Mechanism of signal propagation in *Physarum polycephalum*. Proceedings of the National Academy of Sciences (PNAS) 114:5136-5141.
- Levitis D., J. Golan, A. Pringle, J. Taylor. 2017. A century later, resolving Joseph Grinnell's "Striking Case of Adventitious Coloration". The Auk: Ornithological Advances 134:551-552.
- Baker C.C.M., D.J. Martins, J.N. Pelaez, J.P.J. Billen, A. Pringle, M.E. Frederickson, N.E. Pierce. 2017. Distinctive fungal communities in an obligate African ant plant mutualism. Proceedings of the Royal Society B 284:20162501.
- Hobbie E.A., B.A. Schubert, J.M. Craine, E. Linder, A. Pringle. 2017. Carbon isotopes in the saprotrophic fungus Amanita thiersii reveal increased C3 productivity of Midwestern lawns since 1982. Journal of Geophysical Research: Biogeosciences 122:280-288.
- Pringle A., M. Brenner, J. Fritz, M. Roper, A. Seminara. 2017. Reaching the wind: Boundary layer escape as a constraint on ascomycete spore shooting. In *The Fungal Community: Its Organization and Role in the Ecosystem (Fourth Edition)*, ed. J. Dighton and J.F. White. Taylor & Francis: Oxford.
- van Diepen L.T.A., S.D. Frey, E.A. Landis, E.W. Morrison, A. Pringle. 2017. Fungi exposed to chronic nitrogen enrichment are less able to decay leaf litter. Ecology 98:5-11.
- Marbach S., K. Alim, N. Andrew, A. Pringle, M.P. Brenner. 2016. Pruning to increase efficiency of particle spread through *Physarum polycephalum* networks. Physical Review Letters 117: 178103.
- Tulloss R.E., T.W. Kuyper, E.C. Vellinga, Z.L. Yang, R.E. Halling, J. Geml, S. Sánchez-Ramírez, S. C. Gonçalves, J. Hess, A. Pringle. 2016. The genus *Amanita* should not be split. Amanitaceae 1:1-16.
- Dickie I.A., M.A. Nuñez, A. Pringle, T. Lebel, S. Tourtellot, P.R. Johnston. 2016. Towards management of invasive ectomycorrhizal fungi. Biological Invasions 18:3383-3395.
- Morrison E.W., S.D. Frey, J.J. Sadowsky, L.T.A. van Diepen, W.K. Thomas, A. Pringle. 2016. Chronic nitrogen additions fundamentally restructure the soil fungal community in a temperate forest. Fungal Ecology 23:48-57.
- Zimmerman K., D. Levitis, A. Pringle. 2016. Beyond animals and plants: dynamic maternal effects in the fungus Neurospora crassa. Journal of Evolutionary Biology 29:1379-1393.
- Bittleston L.S., N.E. Pierce, A.M. Ellison, A. Pringle. 2016. Convergence in multispecies interactions. Trends in Ecology & Evolution (TREE) 31:269-280.
- Zimmerman K., D. Levitis, E. Addicott\*, A. Pringle. 2015. Selection of pairings reaching evenly across the data (SPREAD): A simple algorithm to design maximally informative fully crossed mating experiments. Heredity 116:182-189.

- van Diepen L.T.A., S.D. Frey, C.M. Sthultz, E.W. Morrison, R. Minocha, A. Pringle. 2015. Litter quality affects the suppression of litter decay by simulated nitrogen deposition. Ecosphere 6:art205.
- Bittleston L.S., C.C.M. Baker, L.B. Strominger\*, A. Pringle, N.E. Pierce. 2015. Metabarcoding as a tool for investigating arthropod diversity in *Nepenthes* pitcher plants. Austral Ecology 41:120-132.
- Barron E.S., C. Sthultz, D. Hurley, A. Pringle. 2015. Names matter: Interdisciplinary research on taxonomy and nomenclature for ecosystem management. Progress in Physical Geography 39: 640-660.
- Pringle, A., E. Vellinga, K. Peay. 2015. The shape of fungal ecology: Does spore morphology give clues to a species' niche? Fungal Ecology 17:213-216. (Commentary.)
- Kohler, Kuo, Nagy, Morin, Barry, Buscot, Canbäck, Choi, Cichocki, Clum, Colpaert, Copeland, Costa, Doré, Floudas, Gay, Girlanda, Henrissat, Herrmann, Hess, Högberg, Johansson, Khouja, LaButti, Lahrmann, Levasseur, Lindquist, Lipzen, Marmeisse, Martino, Murat, Ngan, Nehls, Plett, Pringle, Ohm, Perotto, Peter, Riley, Rineau, Ruytinx, Salamov, Shah, Sun, Tarkka, Tritt, Veneault-Fourrey, Zuccaro, MGIC, Tunlid, Grigoriev, Hibbett, Martin. 2015.
  Convergent losses of decay mechanisms and rapid turnover of symbiosis genes in mycorrhizal mutualists. Nature Genetics 47:410-415.
- Chaib de Mares M., J. Hess, D. Floudas, A. Lipzen, C. Choi, M. Kennedy, I.V. Grigoriev, A. Pringle. 2014. Horizontal transfer of carbohydrate metabolism genes into ectomycorrhizal *Amanita*. New Phytologist 205:1552-1564.
- Hess J., I. Skrede, B.E. Wolfe, K. LaButti, R. Ohm, I. Grigoriev, A. Pringle. 2014. Transposable element dynamics among asymbiotic and ectomycorrhizal *Amanita* fungi. Genome Biology and Evolution 6:1564-1578.
- Hess J., A. Pringle. 2014. The natural histories of species and their genomes: Asymbiotic and ectomycorrhizal *Amanita*. Pages 235-257 in *Fungi (Advances in Botanical Research)*, ed. F. Martin. Academic Press: San Diego.
- Alim K., N. Andrew, A. Pringle. 2013. Quick Guide: Physarum polycephalum. Current Biology 23:R1082-R1083.
- Alim K., G. Amselem, F. Peaudecerf, M. Brenner, A. Pringle. 2013. Random network peristalsis in *Physarum* polycephalum organizes fluid flows across an individual. Proceedings of the National Academy of Sciences (PNAS) 110:13306-13311.
- Fritz J., A. Seminara, M. Roper, A. Pringle, M. Brenner. 2013. A natural O-ring optimizes the dispersal of fungal spores. Journal of the Royal Society Interface 10:20130187.
- Pringle A. 2013. Asthma and the Diversity of Fungal Spores in Air. PloS Pathogens 9(6):e1003371.
- Marmeisse R., U. Nehls, M. Öpik, M.-A. Selosse, A. Pringle. 2013. Bridging mycorrhizal genomics, metagenomics and forest ecology. New Phytologist 198:343-346. (Meeting report.)
- Wolfe B.E., R.E. Tulloss, A. Pringle. 2012. The irreversible loss of a decomposition pathway marks the single origin of an ectomycorrhizal symbiosis. PLoS ONE 7(7):e39597.
- Richard F., L. Glass, A. Pringle. 2012. Cooperation among germinating spores facilitates the growth of the fungus Neurospora crassa. Biology Letters 8:419-422.
- Wolfe B.E., M. Kuo, A. Pringle. 2012. *Amanita thiersii* is a saprotrophic fungus expanding its range in the United States. Mycologia 104:22-33.
- Wolfe B.E., A. Pringle. 2011. Geographically structured host specificity is caused by the range expansions and host shifts of a symbiotic fungus. The ISME Journal 4:745-755.
- Mushegian A.A.\*, C.N. Peterson, C.C.M. Baker, A. Pringle. 2011. Bacterial diversity across individual lichens. Applied and Environmental Microbiology 77:4249-4252.
- lannone R., D.I. Chernoff, A. Pringle, S.T. Martin, A.K. Bertram. 2011. The ice nucleation ability of one of the most abundant types of fungal spores found in the atmosphere. Atmospheric Chemistry and Physics 11:1191-1201.
- Pringle A., E. Barron, K. Sartor, J. Wares. 2011. Fungi and the Anthropocene: Biodiversity discovery in an epoch of loss. Fungal Ecology 4:121-123. (Introduction to a special issue: "Conservation Underground: Fungi in a Changing World".)
- Pringle A., B.E. Wolfe, E.C. Vellinga. 2011. Mycorrhizae. Entry for the *Encyclopedia of Invasive Species*. University of California Press.
- Roper M., A. Seminara, M.M. Bandi, A. Cobb, H.R. Dillard, A. Pringle. 2010. Dispersal of fungal spores on a cooperatively generated wind. Proceedings of the National Academy of Sciences (PNAS) 41:17474-17479.

- -News & Views: Nature 467:669 -Editors' Choice: Science 330:429
- Wolfe B.E., F. Richard, H.B. Cross, A. Pringle. 2010. Distribution and abundance of the introduced ectomycorrhizal fungus, *Amanita phalloides*, in North America. New Phytologist 185:803-816.
- Shapiro J.\*, A. Pringle. 2010. Anthropogenic influences on the diversity of fungi isolated from caves in Kentucky and Tennessee. American Midland Naturalist 163:76-86.
- Hoeksema, J.D., V.B. Chaudhary, C.A. Gehring, N.C. Johnson, J. Karst, R.T. Koide, A. Pringle, C. Zabinski, J.D. Bever, J.C. Moore, G.W.T. Wilson, J.N. Klironomos, J. Umbanhowar. 2010. A meta-analysis of context-dependency in plant response to inoculation with mycorrhizal fungi. Ecology Letters 13:394-407.
- Pringle A., J.D. Bever, M. Gardes, J.L. Parrent, M.C. Rillig, J.N. Klironomos. 2009. Mycorrhizal symbioses and plant invasions. Annual Review of Ecology, Evolution and Systematics 40:699-715.
- Pringle A. 2009. A quick guide to mycorrhizal networks. Current Biology 19:R838-R839.
- Johnson N.C., V.B. Chaudhary, J.D. Hoeksema, J.C. Moore, A. Pringle, J.A. Umbanhower, G.W.T. Wilson. 2009. Mysterious mycorrhizae? A field trip and classroom experiment to demystify the symbioses formed between plants and fungi. American Biology Teacher 71:424-429.
- Pringle A., R.I. Adams, H.B. Cross, T.D. Bruns. 2009. The ectomycorrhizal fungus *Amanita phalloides* was introduced and is expanding its range on the West Coast of North America. Molecular Ecology 18:817-833.
- Vellinga E.C., B.E. Wolfe, A. Pringle. 2009. Global patterns of ectomycorrhizal introductions. New Phytologist. 181:960-973.
- Roper M., R. Pepper, M.P. Brenner, A. Pringle. 2008. Explosively launched spores of ascomycete fungi have drag minimizing shapes. Proceedings of the National Academy of Sciences (PNAS) 105:20583-20588.
- Pringle A., J.D. Bever. 2008. Analogous effects of arbuscular mycorrhizal fungi in the laboratory and a North Carolina field. New Phytologist 180:162-175.
  - -Subject of lead commentary; New Phytologist 180:1-2
- Wolfe B.E., V.L. Rodgers, K.A. Stinson, A. Pringle. 2008. The invasive plant *Alliaria petiolata* (garlic mustard) inhibits ectomycorrhizal fungi in its introduced range. Journal of Ecology 96:777-783.
- Peterson C., S. Day\*, B.E. Wolfe, A. Ellison, R. Kolter, A. Pringle. 2008. A keystone predator controls bacterial diversity in the pitcher-plant (Sarracenia purpurea) microecosystem. Environmental Microbiology 10:2257-2266.
- Taylor J.W., E. Turner, A. Pringle, J. Dettman, H. Johannesson. 2007. Fungal species: thoughts on their recognition, maintenance and selection. Pp. 313-339 in *Fungi in the Environment* (British Mycological Society Symposia No. 25) eds. G.M. Gadd, S.C. Watkinson and P.S. Dyer. Cambridge: Cambridge University Press.
- Pringle A., E.C. Vellinga. 2006. Last chance to know? Using literature to explore the biogeography and invasion biology of the death cap mushroom *Amanita phalloides* (Vaill. Ex Fr. :Fr.) Link. Biological Invasions 8:1131-1144.
- Gilchrist M.A., D.L. Sulsky, A. Pringle. 2006. Identifying fitness and optimal life history strategies in an asexual filamentous fungus. Evolution 60:970-979.
- Schwartz M.W., J.D. Hoeksema, C.A. Gehring, N.C. Johnson, J.N. Klironomos, L.K. Abbott, A. Pringle. 2006. The promise and the potential consequences of the global transport of mycorrhizal fungal inoculum. Ecology Letters 9:601-616.
- Adams R.I., H.E. Hallen, A. Pringle. 2006. Using the incomplete genome of the ectomycorrhizal fungus *Amanita* bisporigera to identify molecular polymorphisms in the related *A. phalloides*. Molecular Ecology Primer Notes 6:218-220.
- Pringle A., D.M. Baker, J.L. Platt, J.P. Wares, J.P. Latge, J.W. Taylor. 2005. Cryptic speciation in the cosmopolitan and clonal human pathogenic fungus Aspergillus fumigatus. Evolution 59:1886-1899.
- Pringle A., S.N. Patek, M. Fischer, J. Stolze, N.P. Money. 2005. The captured launch of a ballistospore. Mycologia 97:866-871.
- Rowe A.R.\*, A. Pringle. 2005. Morphological and molecular evidence of arbuscular mycorrhizal fungal associations in Costa Rican epiphytic bromeliads. Biotropica 37:245-250.
- Pringle A., J.M. Moncalvo, R. Vilgalys. 2003. Revisiting the rDNA sequence diversity of a natural population of the arbuscular mycorrhizal fungus Acaulospora colossica. Mycorrhiza 13:227-231.

- Dettman J.R., D.J. Jacobson, E. Turner, A. Pringle, J.W. Taylor. 2003. Reproductive isolation and phylogenetic divergence in *Neurospora*: comparing methods of species recognition in a model eukaryote. Evolution 57:2721-2741.
- Pringle A., D. Chen\*, J.W. Taylor. 2003. Sexual fecundity is correlated to size in the lichenized fungus Xanthoparmelia cumberlandia. The Bryologist 106:221-225.
- Pringle A., J.W. Taylor. 2002. Understanding the fitness of filamentous fungi. Trends in Microbiology 10:474-481.
- Pringle A., J.D. Bever. 2002. Divergent phenologies may facilitate the coexistence of arbuscular mycorrhizal fungi in a North Carolina grassland. American Journal of Botany 89:1439-1446.
- Bever J.D., A. Pringle, P.A. Schultz. 2002. Dynamics within the plant-arbuscular mycorrhizal fungal mutualism: testing the nature of community feedback. Pages 267-292 in *Mycorrhizal Ecology*, ed. M. van der Heijden and I. Sanders. Springer-Verlag: Heidelberg.
- Pringle A. 2001. The ecology and genetics of arbuscular mycorrhizal fungi. Ph.D. Thesis, Duke University.
- Bever J.D., P.A. Schultz, A. Pringle, J.B. Morton. 2001. Arbuscular mycorrhizal fungi: more diverse than meets the eye, and the ecological tale of why. BioScience 51:923-931.
- Pringle A., J.M. Moncalvo, R. Vilgalys. 2000. High levels of variation in ribosomal DNA sequences within and among spores of a natural population of the arbuscular mycorrhizal fungus *Acaulospora colossica*. Mycologia 92:259-268.
- Sniegowski P.D., A. Pringle, K. Hughes. 1994. Effects of autosomal inversions on meiotic exchange in distal and proximal regions of the X-chromosomes in a natural population of *D. melanogaster*. Genetical Research 63:57-62.

# Forwards, Essays, Book Reviews and Popular Articles, etc.

- Pringle A. 2021. A lichen: A community and an organism. Cell Systems 12:207-209.
- Arthur, E., L. Keller, A. Pringle. 2019. The Destroying Angel. In: becoming-Botanical: a post-modern liber herbalis, Eds. J. Armstrong, A. Lakind, C. Adsit-Morris. Objet-a Creative Studio.
- Pringle A. 2012. The Christmas Fungus on Christmas Island. In: Microbes and Evolution: The World Darwin Never Saw, Eds. S. Maloy and R. Kolter. ASM Press, Washington, D.C.
- Pringle A. 2008. Forward to The Fungi of Serbia, written by Branislav Uzelac and members of the Mycologists' Association of Serbia.
- Friesen M.S., A. Pringle, B. Callan, A. Leathem. 2005. *Amanita phalloides* heads north. Conference Proceedings of the North American Congress of Clinical Toxicologists. (Case study of death cap poisoning in British Columbia, Canada.)
- Pringle A. 2005. Immortal Fungi. Mycena News 56:01. (A popular science article for the newsletter of the Mycological Society of San Francisco.)
- Pringle A., L.C. Moyle, J. MacLachlan, J. HilleRisLambers. 2000. Philosophy and biology: a review of the book <u>Sex and Death</u>. Complexity 5:44-45.

### Grants

- · Google.org. \$20,000. Mushroom Observer: A Global Biodiversity Resource in Need of Storage and an App. (pending).
- · National Geographic Society. \$120,110. Soil microbiome transplants: A dirt simple method to enable urban forestry. 2018-2021.
- · Hatch Act/United States Department of Agriculture. \$96,810. Spore mortality and environmental stochasticity: Understanding the long distance dispersal of plant pathogenic fungi. 2017-2020.
- Human Frontier Science Program. \$900,000 (\$300,000 to Pringle). Fluid flows and resource integration across fungal networks (HFSP #RGP0053/2012). 2012-2016. With Mark Fricker (Oxford) and Michael Brenner (SEAS, Harvard).

- National Science Foundation Division of Integrative Organismal Systems. \$485,191. The single origin of mycorrhizas among the Amanita: A model for elucidating the genetic architecture of symbiosis (NSF#1021606). 2010-2015.
- National Science Foundation Division of Environmental Biology. \$747,005 (\$388,817 to Pringle). The changing diversity and evolution of decomposer fungi in response to anthropogenic change (NSF#1021079). 2010-2015. With Serita Frey (UNH).
- National Science Foundation Division of Social and Economic Sciences. \$120,000. STS post-doctoral fellowship: Metagenomics and its impacts on species-based conservation science and policy (NSF #1127269). 2011-2013. To Elizabeth Barron (Pringle Laboratory).
- Joint Genomes Institute/Department of Energy. Contract to sequence the genome of the basidiomycete fungus Amanita thiersii, a cellulose degrading fungus in an ectomycorrhizal genus. Completed in 2015. With Benjamin Wolfe (Pringle Laboratory).
- National Science Foundation Doctoral Dissertation Improvement Grant. \$15,000. Yeast dispersal among pitcher plants and fungal metacommunity processes (NSF#0808404). 2008-2010. To Primrose Boynton (Pringle Laboratory).
- National Science Foundation Doctoral Dissertation Improvement Grant. \$12,000. The genus Amanita as a model for the evolution of symbiosis (NSF#0808404). 2008-2010. To Benjamin Wolfe (Pringle Laboratory).
- Research Enabling Grant, Office of the Provost, Harvard University. \$53,997. To support research on Amanita phalloides. 2007-2008.
- · Anonymous Gift (from an amateur mycologist). \$22,000. For work with Amanita species. 2007.
- · William F. Milton Fund of the Harvard Medical School. \$35,000. Aging in lichen species. 2006.
- Miller Institute for Basic Research in Science Research Award. \$45,000. To support basic ecological and evolutionary research. 2001-2004.
- National Science Foundation Doctoral Dissertation Improvement Grant. \$10,367. Asexuality and parasitism in arbuscular mycorrhizal fungi. 1998-2000.

# Grants: Co-PI

- National Science Foundation Doctoral Dissertation Improvement Grant. \$21,970. Exploring convergence within pitcher plant microcosms (NSF#1400982). 2014-2016. To Leonora Bittleston (Pringle and Pierce Laboratories).
- Templeton Foundation Foundational Questions in Evolutionary Biology (FQEB) Research Grant. \$197,692.
   Cooperative species networks. 2012- 2014. Co-PI with Naomi Pierce (OEB, Harvard) and Megan Frederickson (U. Toronto).
- National Science Foundation Improvement in Facilities, Communications and Equipment at Biological Field Stations and Marine Laboratories (FSML). \$348,259. Infrastructure for molecular and microbial ecology at the Harvard Forest (NSF#0930516). 2009-2011. Co-PI with David Foster and Aaron Ellison (Harvard Forest), and Serita Frey (UNH).

# Collaborative International Grants

- · Portuguese Foundation for Science and Technology (FCT). EUR 179,508. "What makes Amanita phalloides a successful invader? Insights from its native range". 2012-2015. With Susana Gonçalves, Universidade de Coimbra, Portugal.
- Swedish Foundation for International Cooperation in Research and Higher Education. SEK 900,000. Systems Biology of Neurospora. 2008-2010. With Hanna Johanneson, Uppsala Universitet, Sweden.

# Invited Talks (Academic Audiences)

- 2021 New Phytologist Symposium "Plant/Fungal Invasions" (Brazil)
  ASM/FEMS World Microbe Forum "Meet the Expert" (virtual)
  University of Pretoria (South Africa) (virtual)
- 2020 Presidential Address, Mycological Society of America (virtual) American Society for Microbiology Microbe 2020 "Microbes in the Anthropocene" (cancelled) University of Mississippi

University of British Columbia (Canada)

2019 Fungal Genetics Conference "The Spore"

International Conference on Mycorrhizas 10 "Emerging Model Systems" (Mexico)

Mycological Society of America "Taylor Festschrift"

**Boston University** 

2018 University of Miami

Max Planck Institute for Evolutionary Biology (Germany)

University of Colorado, Boulder

University of Dar Es Salaam (Tanzania)

Mexican Mycological Congress Keynote (Mexico) (virtual)

University of Michigan

2017 Drexel University

Uppsala University (Sweden)

Chulalongkorn University (Thailand)

Michigan State University

Kellogg Biological Station

2016 The Field Museum

Chicago Botanic Garden

EMBL/EMBO "New Model Systems for Linking Evolution and Ecology" (Germany)

New Phytologist Workshop "Emerging Science of Plant/Fungal Invasions" (New Zealand)

HFSP Annual Meeting (Singapore)

Mycological Society of America "Fungal Invasions"

University of Wisconsin-Green Bay

Lawrence University

2015 Université de Nice Sophia Antipolis (lecture series; France)

ETH Zurich (Switzerland)

Wisconsin Discovery Institute

2014 National Science Foundation

University of Pennsylvania

University of California, Los Angeles

University of Wisconsin, Madison

University of California, Santa Cruz "Anthropocene: Arts of Living on a Damaged Planet"

Max Planck Institute for Developmental Biology (Germany)

International Mycological Congress, "Diversity of Ectomycorrhizal Systems" (Thailand)

Harvard Forest

**DARPA** 

Universidad de los Andes (Colombia)

2013 University of British Columbia

Northern Arizona University

University of Minnesota

**Fungal Genetics Conference** 

Swedish Agricultural University (Sweden)

University of Georgia

Princeton University

Pennsylvania State University

Rockefeller University

**Rutgers University** 

University of California, Berkeley

2012 Max Planck Institute for Demographic Research (Germany)

Ecological Society of America "Universal Senescence?"

2011 Boston University

Joint Genome Institute "Basidiomycetes Jamboree" (via Skype)

Oregon State University, Bonnie Templeton Lecture

Jacques Monod CNRS, Roscoff (France) "Emerging Fungal Diseases and Global Change"

University of Pennsylvania

University of Massachusetts, Amherst

Cold Spring Harbor "Plant Genomes: From Genes to Networks"

2010 University of Georgia, Department of Ecology

University of Georgia, Department of Genetics

University of Wisconsin, Madison

International Mycological Congress "Invasive and Threatened Fungi" (Scotland)

EMBL/EMBO "Experimental Approaches to Evolution and Ecology" (Germany)

California Institute of Technology

Marine Biological Laboratory, Woods Hole

2009 AAAS Annual Meeting "Microbes in a Changing World"

Fungal Genetics Conference

American Society of Microbiology "Microbes in a Changing World"

Max Planck Institute for Demographic Research (Germany)

2008 University of Texas, Austin

Ecological Society of America "Frontiers in Fungal Ecology"

Mycological Society of America "Fungal Biodiversity Informatics"

China Agricultural University (Beijing)

2007 Duke University

University of Toulouse (France)

University of Montpellier (France)

University of Massachusetts, Boston

**Brown University** 

University of Virginia

2006 Harvard Forest

University of New Hampshire

"Mycorrhiza: systems research from genes to communities" Conference (Switzerland)

Harvard University Microbial Sciences Initiative Symposium

2005 University of Guelph (Canada)

University of Maine

Uppsala University (Sweden)

2004 Harvard University

Max Planck Institute for Demographic Research (Germany)

2003 Fungal Genetics Conference

University of Toronto (Canada)

Indiana University

2002 University of California, Davis

University of Toulouse (France)

2000 Elon College

Carleton College

University of California, Berkeley

1999 Society for the Study of Evolution "Evolutionary Biology of Host-Parasite Systems"

# Invited Talks (Popular Audiences/Science Outreach)

2021 Illinois Mycological Association (virtual)

Mycological Association of Washington, D.C. (virtual)

U.K. Arboricultural Association (virtual)

2020 Global Biodiversity Festival (virtual)

2019 Milwaukee Public Museum

University of Wisconsin-La Crosse Mycology Club

Bogotá Botanical Garden, Colombia

2018 Inaugural Meeting of the Madison Mycological Society

Wisconsin Mycological Society (twice)

201 <i>7</i>	iBiology (three lectures)		
2016	University of Wisconsin-Madison Botany Club		
	University of Wisconsin-Madison Microbiology Club		
2015	NOVA's CafeSci, Boston		
2013	Cambridge Science Week		
2012	Radcliffe Institute Outreach Events "Crossroads of Science and Art", San Francisc		
2010	New England Botanical Club		
	Harvard Life Sciences High School Teacher Outreach Program		
2009	New England Mycological Foray		
2007	Derek Bok Center for Teaching and Learning Career Panel (Harvard University)		
	Harvard Museum of Natural History Family Program		
2006	Friends of the Farlow Herbarium (Harvard University)		
	Boston Mycological Club		
	Mycological Association of Washington, D.C.		
	Radcliffe Trust (Harvard University)		
	"Paths of Professorship" Workshop (MIT)		
2005	Mycological Society of San Francisco		
	Los Angeles Mycological Society		
	Davis, CA Mycological Society		

# **Contributed Talks**

2014	VII Congreso Latinoamericano de Micología (Colombia)
2012	Mycological Society of America
2011	Mycological Society of America
2007	Fungal Genetics Conference
	Ecological Society of America
2004	Society for the Study of Evolution
	Mycological Society of America
2000	Ecological Society of America
1998	Duke University
	Society for the Study of Evolution
	Ecological Society of America
1996	National Association of Biology Teachers National Convention

# **Select Publicity**

- · National Geographic "Fungi are Key to our Survival. Are We Doing Enough to Protect Them?". March 2021.
- · National Public Radio/KQED "From Mites on Drones to Deadly Mushrooms". February 2021.
- · Wired Magazine "Mycologist Explains How a Slime Mold Can Solve Mazes". October 2019.
- · UW-Madison "Pringle Laboratory at the Smith Foray". November 2018.
- · The Wisconsin State Journal "How can you tell if mushrooms are poisonous?". December 2017.
- · The Wisconsin State Journal. Evolution of Decomposition. May 2017.
- · New York Times and elsewhere. "Fungi Physics: How those Spores Launch Just Right" (Ballistospores). July 2017.
- · <u>The Atlantic</u>. Global change research. June 2017.
- Featured in <u>Scholastic MATH Magazine</u>'s 2017 Earth Day Issue, for distribution to middle and high school classrooms.
- · National Public Radio/KQED. Invasive death caps filmed for "Deep Look". February 2016.
- · New York Times. "Another Danger in a Perilous Journey: Poisonous Mushrooms". September 18, 2015.
- · Featured on National Public Radio's "You're The Expert" (theexpertshow.com). Aired April 2015.
- · Appalachian Mountain Club magazine, AMC Outdoors. "Wild Wisdom" column. April 2015.
- · Slate. "The Most Dangerous Mushroom". February 10, 2014.
- New York Times. "In a Place for the Dead, Studying a Seemingly Immortal Species". January 1, 2013.

- · Filmed for NOVA's "scienceNOW". "What Are Animals Thinking?" Aired November 2012.
- · Research featured in Polish newspaper Gazeta; "Grzyby: jak wykorzystac podziemne imperium". May 2012.
- · Research on lichen microbiomes featured on National Public Radio's "Living on Earth". March 2011.
- · Mycology class featured in the Harvard, MA town newspaper; "Students find life in the cemetery". October 2010.
- · Research on cooperative spore dispersal featured in <u>The Scientist</u>, <u>Wired, Muy Interesante (Mexico)</u>, <u>New Scientist (UK)</u>, <u>Der Spiegel (Germany)</u>, <u>Noorderlicht (Netherlands)</u>, among others. October 2010.
- Research on Amanita phalloides, lichens, cooperative spore dispersal featured in multiple articles of the <u>Harvard Gazette</u>: news.harvard.edu/gazette/. Various dates.
- Work on invasive fungi featured in <u>Microbe: The News Magazine of the American Society for Microbiology</u> 4: 213-214. May 2009.
- Featured in Yes Mag, the Science Magazine for Adventurous Minds article "Fairy Tale" (about fungal fairy rings). July/August 2007.
- Research on Amanita phalloides featured on National Public Radio's "All Things Considered". NPR's "Story of the Day"; subsequently picked up by fungal and other blogs. February 2007.

# **Teaching**

#### **COURSES AT HARVARD**

- · Biology of Fungi (OEB 54): 2006, 2007, 2008, 2009, 2010, 2012
- · Ecological Genetics (OEB 278): 2007, 2008, 2013
- · Evolution of Aging (Freshman Seminar 23o): 2009, 2010, 2011, 2013

### **COURSES AT WISCONSIN**

- · General Botany (Botany 130): 2016
- · Foundations of Evolution (Botany 820): 2016, 2017, 2018, 2019, 2020
- · Fungi (Botany 332): 2017, 2018, 2019, 2020, 2021
- · Land Use Change in Wisconsin (Botany 211): 2017, 2018, 2019, 2020, 2021
- · Plant Ecology Graduate Seminar (Botany 950): 2017
- · Evolution of Sex Seminar (Microbiology 875-003): 2019

### ELEMENTARY, MIDDLE AND HIGH SCHOOL SCIENCE TEACHER

· Introductory Biology, Botany (including Mycology), Chemistry, Physics, Independent Science Research for High School students. Saint Ann's School, Brooklyn NY. 1993-1995.

# **Undergraduate Mentoring and Advising**

### **UNDERGRADUATE RESEARCH (SINCE 2005)**

Rachel Stahr 2005 Harvard Forest REU

· K. Fenstermacher 2005-2008 Independent research, PRISE/MSI fellow, senior thesis

· J. Soon Ok Worl 2006-2008 Paid assistant, HUCE research assistantship

· Julie Shapiro 2005-2009 Independent research, MCZ GUR grant

· Kate Farley 2008-2009 Independent research, Harvard Forest REU

· R. Compton 2008-2009 Independent research, MCZ GUR grant, senior thesis

· A. Mushegian 2008-2010 Independent research, senior thesis

Samuel Pérez 2008-2011 Independent research, PRISE fellow, Harvard Forest REU,

HHMI IDEAS fellow

· Rachel Hawkins 2010-2011 Paid assistant, independent research, MSI fellow

Serena Zhao 2010-2012 Independent research, MSI fellow, MCZ GUR grant,

senior thesis

· C. Anderson 2011-2012 Independent research

David Jaramillo 2011-2012 Radcliffe Research Partnership

•	Lila Strominger	2011-2013	Independent research, senior thesis
•	Ethan Addicott	2011-2014	Radcliffe Research Partnership, MSI fellow, senior thesis
•	Tristan Wang 2012-2	2014 Paid as	ssistant
•	Charlie Wolock	2012-2015	Independent research, senior thesis
•	Carrie Chapek	2016-2018	Research for credit
•	Jason Gill	2017-2018	Capstone research; Botany major
•	John Zuber	2017-2018	Research for credit
•	Lauren Cleary 2018	Researc	ch for credit
•	Elizabeth Buchholz	2017-2020	Research for credit
•	Reinhard Kessenich	2019-2020	Research for credit
•	Milo Chiu	2019-2020	Capstone research; Botany major
•	William Mao	2019-present	Research for credit
•	H. Vanderscheuren	2019-present	Research for credit
•	Griffin Emerson	2020	Research for credit
•	Naamon Peyton	2020-present	URS Scholar

### ACADEMIC ADVISING AT HARVARD

- · Organismic and Evolutionary Biology Concentration Advisor, 2005-2014
- · Board of Freshman Advisors, 2006-2009
- · Environmental Science and Public Policy Board of Tutors, 2007-2014.

## ACADEMIC ADVISING AT WISCONSIN

· Evolution Option Representative at Biology Majors Program Committee, 2017-2018

# **Graduate Student Mentoring and Advising**

## PRINGLE LABORATORY GRADUATE STUDENTS: PH.D.

•	Benjamin Wolfe <sup>1,2</sup>	2005-2010	The evolution of symbiosis within the genus <i>Amanita</i> (currently Associate Professor, Tufts University)
•	Primrose Boynton <sup>2</sup>	2006-2012	Community assembly of pitcher plant yeasts (currently Assistant Professor, Wheaton College)
•	Kolea Zimmerman <sup>1</sup>	2010-2016	The evolution of life histories among the fungi (currently Engineer, Ginkgo Bioworks)
•	Leonora Bittleston <sup>1,2</sup>	2010-2016	Multi-species interactions, co-advised by N. Pierce (currently Assistant Professor, Boise State University)
•	Jacob Golan <sup>1</sup>	2015-2020 Dispers	al (accepted at NYU Law School beginning Fall 2020)
	Nora C. Dunkirk	2016-present	Evolution of fungi in global change contexts
	Yen-Wen Wang	2016-present	Amanita phylogenomics and metabolomics
•	Savannah Gentry	2017-present	Emerging fungal diseases of wildlife
<sup>1</sup> These individuals supported by NSF Graduate Research Fellowships.			rted by NSF Graduate Research Fellowships.

These individuals supported by NSF Graduate Research Fellowships

## PRINGLE LABORATORY GRADUATE STUDENTS: MASTERS

•	Catherine Adams <sup>1</sup>	2012-2014	Invasion biology (currently a post-doc, U.C. Berkeley)
•	Anne Kakouridis	2013-2014	Fungal biodiversity in global change contexts (currently a post-doc, U.C. Berkeley)
	Yishai Barak	2019-present	Using whole soil transplants to improve plant health

<sup>&</sup>lt;sup>2</sup>These individuals awarded NSF Doctoral Dissertation Improvement Grants.

#### PRINGLE LABORATORY GRADUATE STUDENTS: ROTATIONS AND INTERNSHIPS

· Martha H. Elmore 2013-2014 Harvard University

Maryam C. De Mares 2013 Erasmus Mundus Master Programme in Evolution
 Natalia Vargas 2015 Universidad de los Andes, Bogotá, Colombia
 Martina Iapichino 2016, 2017 Université de Nice Sophia Antipolis, France

Tomás Rush
 2017
 UW-Madison Plant Pathology

· Bastien Bennetot 2017 École Normale Supérieure de Lyon, France

# COMMITTEE MEMBER FOR 21 GRADUATE STUDENTS AT HARVARD; ESPECIALLY INVOLVED IN THE COMMITTEES OF:

Joerg Fritz (Brenner Group, School of Engineering and Applied Sciences, graduated 2013)

· Austin Booth (Department of Philosophy, graduated 2014)

Chris Baker (Pierce Lab, Organismic and Evolutionary Biology, until 2014)
 Martha H. Elmore (Haig Lab, Organismic and Evolutionary Biology, graduated 2020)

#### **FACULTY ADVISOR:**

· Harvard Graduate Women in Science and Engineering (HGWISE). 2005-2014.

#### **WISCONSIN COMMITTEES:**

Quinn Langdon (Hittinger Lab, Genetics, 2015-2019)
 Michelle Keller-Pearson (Silva & Ané Labs, CMB, 2015-2019)

Joseph Spraker (Keller Lab, MMI, 2016)
 Kahoua Yang (Keller Lab, MMI, 2016-2017)

Karen Vanderwolf (Goldberg Lab, Veterinary School, 2016-2019)
 Sachin Jain (Kabbage Lab, Plant Pathology, 2016-2018)

Kelsey Huisman (Cameron Lab, Botany, 2017-2018)
 Tomás Rush (Ané Lab, Plant Pathology, 2017-2019)

William Grant Morton (Cameron Lab, Botany, 2017-present)

· Melody Sain (Baum Lab, Botany, 2017-present)

Jill Hautaniemi (Stanosz Lab, Forestry, 2017-2019)
 Shelby Petersen (Keller Lab, METC, 2018)

· Alden Dirks (Jackson Lab, Agroecology, 2018-2019)

Dianiris Luciano-Rosario (Keller Lab, Plant Pathology, 2018-present)
 Kirsten Gotting (Currie Lab, Genetics, 2019-present)
 Kathleen Thompson (Lankau Lab, Botany, 2019-present)

· Meareg Amare (Kabbage Lab, Plant Pathology, 2019-present)

Soleil Young (Currie Lab, MDTP, 2019-present)
 Zach Zalewski (Lankau Lab, Plant Pathology, 2019-present)

· Aldo Arellano (Coons Lab, MDTP, 2020-present)

### TRAINING AT UW-MADISON:

- Trainer for Plant Pathology (College of Agriculture and Life Sciences)
- · Trainer for Microbiology Doctoral Training Program (College of Agriculture and Life Sciences)
- · Trainer for Comparative Biomedical Sciences Program (School of Veterinary Medicine)

#### INTERNATIONAL ADVISORY BOARD:

 TULIP (translates to "Biotic Interactions") Graduate School, funded by the Agence Nationale de la Recherche of France, based at the Université de Toulouse (Paul Sabatier)

### **EXTERNAL EXAMINER/OPPONENT:**

· Elisabet Ottosson (Stenlid Group, Swedish University of Agricultural Sciences, 2013)

· Ioana Onut Brännström (Johannesson Group, Uppsala University, 2017)

# **Post-Doctoral Associates**

- · Franck Richard. 2006. Now Maître de Conférences, CNRS, Montpellier, France.
- · Celeste Peterson. 2006-2007. Joint with Roberto Kolter, HMS. Now Associate Professor, Suffolk University.
- · Marcus Roper. 2006-2007. Now Professor, UCLA.
- Gabriel Amselem. 2010-2012. Joint with Michael Brenner, SEAS. Now at LadHyX laboratory, École Polytechnique, Paris.
- · Agnese Seminara, 2008-2012. Joint with Michael Brenner, SEAS. Now Directrice de Recherche, CNRS, Nice, France.
- · Elizabeth Barron. 2010-2013. Now Associate Professor, The Norwegian University of Science and Technology.
- · Jaqueline Hess. 2011-2014. Now Group Leader, UFZ Helmholtz Centre for Environmental Research, Halle.
- · Karen Alim. 2010-2015. Joint with Michael Brenner, SEAS. Now Professor, Technical University of Munich.
- · Daniel Levitis. 2016-2018. Now Community Science Coordinator, Sonoma Ecology Center.

# Sabbatical and Other Visitors

- · Louise Glass. Sabbatical. From University of California, Berkeley. 2006.
- · Jim Bever. Sabbatical. From Indiana University. 2007.
- · Inger Skrede. Fulbright Scholar. From Universitetet I Oslo. 2011.
- Erik Hobbie. Sabbatical. From University of New Hampshire. 2011-2012.
- · Gwen Grelet. Marie Curie Fellow. From Landcare Research, New Zealand. 2013.
- · Monique Gardes. Sabbatical. From Université de Toulouse. 2013
- · Mary Berbee. Sabbatical. From University of British Columbia. 2019.

# Service

### HARVARD COMMITTEES

- · Life Sciences Evolutionary Biology Strategic Planning Committee (College). 2006.
- · Committee to Evaluate the Movement of the Harvard University Herbaria (College). 2006.
- · Search Committee for Plant Evolutionary Biologist (Department). 2006-2007.
- · Search Committee for Plant Ecology and Global Climate Change Biologist (Department). 2007-2008.
- · Harvard Task Force on Greenhouse Gas Emissions (University Committee). 2008.
- · OEB Undergraduate Curriculum Committee (Department). 2009-2010.
- · University Hearing Committee (University Committee). 2007-2014.
- · Microbial Sciences Initiative Steering Committee (University Committee). 2008-2014.

### SCIENTIFIC ADVISOR

· For displays on fungi housed within a new, permanent exhibit on "New England Forests"; Harvard Museum of Natural History. 2010-2012.

### WISCONSIN COMMITTEES

- · Alternate, Faculty Senate. 2015-2016.
- · Senator, Faculty Senate. 2016-2019.
- · Biology Colloquium Committee (Department). 2015-2016.
- · Committee on Botany and its Future within the College of Letters & Sciences (Department). 2016.
- · Botany Graduate Committee (Department). 2015-2017.
- · Botany Merit Committee (Department). 2016-2019.
- · Crow Institute for the Study of Evolution Coordinating Committee (University). 2017-2018.
- Global Health Institute Advisory Committee (University). 2017-2018.
- Tenure Committee: Assistant Professor Kate McCulloh (Department). 2017-2019.

- · Committee to Hire a New Building Manager (Department). 2018
- · Committee to Identify Promising Candidates as Targets of Opportunity (Department). 2017-2019.
- · Botany Committee to Discuss Title IX Issues (Department). 2018-2019.
- · Search Committee for New Dean of Letters and Science (College). 2020.
- · Search Committee for Inaugural Associate Dean of Diversity, Equity, Inclusion (College). 2020-2021.
- · Search Committee for Forest Mycologist, Forest Service: Northern Research Station (Federal). 2021

N.B.: Although I serve on many committees, the bulk of my time is devoted to two:

- Botany Department Title IX Liaison, 2016-2019, which ended with the establishment of the Botany Diversity, Equity and Inclusion Committee; I serve as Chair of the Botany DEI. 2019-present.
- · College of Letters & Science Diversity, Equity and Inclusion Committee. 2016-present; Chair: 2017-present.

#### **ELECTED**:

Councilor for Ecology/Pathology, Mycological Society of America. 2010-2012.

### MYCOLOGICAL SOCIETY OF AMERICA COMMITTEES

- · Karling Lecture Committee. 2011-2014.
- · Symposium Committee. 2015-2018.
- · Distinctions Committee. 2016-present.

### PROGRAM CHAIR:

Mycological Society of America Annual Meeting, Berkeley. 2016.

#### EDITOR:

Inoculum, the newsletter of the Mycological Society of America. 2018-present.

#### MEMBER

Scientific Advisory Board, International Mycological Congress 12: Amsterdam. 2022

### **EDITORIAL BOARDS**

- · Journal of Experimental Zoology Part B: Molecular and Developmental Evolution (Wiley-Blackwell). 2005-2011.
- Fungal Ecology (Elsevier). 2008-present. (Directing Editor for Special Issue on "Conservation Underground: Fungi in a Changing World", 2010-2011.)
- · Oecologia (Springer). 2018-present.

#### **REVIEWER:**

African Journal of Agricultural Research, Annales Botanici Fennici, Biological Invasions, BMC Genomics, Botany, Cell Reports, Central European Journal of Biology, Communications Biology, Current Biology, Ecology, Ecology Letters, Estonian Science Foundation, Eukaryotic Cell, Evolution, Fungal Genetics and Biology, Genetics, Israel Science Foundation, ISME Journal, Journal of Applied Ecology, Journal of Ecology, FEMS Microbiology Ecology, Functional Ecology, Fungal Ecology, Microbial Ecology, Molecular Biology and Evolution, Molecular Ecology, Movement Ecology, Mycologia, Mycorrhiza, National Geographic, National Science Foundation, Natural Sciences and Engineering Research Council of Canada, National Environment Research Council (NERC; U.K.), National Geographic Society, Nature, Nature Communications, New Phytologist, Oecologia, Oikos, Proceedings of the National Academy of Science USA, Proceedings of the Royal Society B, Science, Sloan Foundation, Springer-Verlag (book proposal), Trends in Ecology and Evolution, others.

# **Primary Professional Affiliations**

- · Mycological Society of America
- · Society for the Study of Evolution
- · Genetics Society of America