***Dr. A. Elizabeth Arnold ~ Professor and Curator***

***Hired 1/5/2005***

**Higher education & professional positions**

**(B.S.)** Biology, with Honors, cum laude, Duke University (1995)

**(Ph.D.)** Ecology and Evolutionary Biology, The University of Arizona (2002)

(**Postdoctoral**) NSF Fellow in Microbial Biology, Duke University (2002-2004)

(**Asst.**) Dept. of Plant Sciences, The University of Arizona (2005-2010) (joint appt., Ecology and Evolutionary Biology)

(**Assoc.)** School of Plant Sciences, The University of Arizona (2010-2015) (joint, Ecology and Evolutionary Biology)

(**Professor**)School of Plant Sciences, The University of Arizona (2015-present) (joint, Ecology and Evolutionary Biology); Applied Biosciences GIDP; Genetics GIDP; Curator; and Honors Professor

**Listing of scholarly work (15 recent publications from 130 published, peer-reviewed papers to date; \* = student)**

U’Ren, J.M., F. Lutzoni, J. Miadlikowska, N.B. Zimmerman, I. Carbone, G. May, **A.E. Arnold**. 2019. Host avail-ability drives distributions of fungal endophytes in the imperilled boreal realm. *Nature Ecology & Evolution* 3:1430-1437.

Baltrus, D.A., M. Clark, P. Inderbitzin, D. Pignatta, V. Knight-Connoni, **A.E. Arnold**. 2019. A complete genome sequence for *Luteibacter pinisoli* MAH-14. *Microbiobiology Resource Announcements* 10.1128/MRA.00774-19.

Harrington\*, A.H., M. Del Olmo-Ruiz\*, J.M. U’Ren, K. Garcia, D. Pignatta, N. Wespe, D.C. Sandberg\*, M. Hoffman\*, Y.-L. Huang\*, **A.E. Arnold**. 2019. *Coniochaeta endophytica* sp. nov., a foliar endophyte from healthy tissue of *Platycladus orientalis. Plant and Fungal Systematics* 64:65-79.

Taylor\*, M.J., R.W. Mannan, J.M. U’Ren, N.P. Garber, R.E. Gallery, **A.E. Arnold.** 2019. Age-related variation in the oral microbiome of urban Cooper’s hawks (*Accipiter cooperii*). *BMC Microbiology* 19:e47.

Lutzoni, F., M. Nowak, M. Alfaro, J. Miadlikowska, D. Swofford, **A.E. Arnold**, D. Hibbett, K. Hilu, T. James, D. Quandt, S. Magallón. 2018. Synchronized radiations in plants and fungi linked to symbiosis. *Nature Communications* 9:e5451.

Daru, B.H., E.A. Bowman\*, D. Pfister, **A.E. Arnold.** 2018. Capturing the diversity of endophytic symbionts from herbarium specimens. *Philosophical Transactions of the Royal Society B* 374: e1.

Epps\*, M.J. and **A.E. Arnold**. 2018. Interaction networks of macrofungi and mycophagous beetles reflect diurnal variation and the size and spatial arrangement of resources. *Fungal Ecology* 37:48-56.

Huang\*, Y.-L., E.A. Bowman\*, N.C. Massimo, N.P. Garber, J.M. U’Ren, D.C. Sandberg\*, **A.E. Arnold.** 2018. Using collections data to infer biogeographic, environmental, and host structure of endophytic fungi. *Mycologia* 110: 47-62.

Huang\*, Y.-L., N.B. Zimmerman, **A.E. Arnold**. 2018. Observation on early establishment of foliar endophytic fungi in leaf discs and living leaves of a model woody angiosperm, *Populus trichocarpa* (Salicaceae). *Journal of Fungi* 4:e58.

Chen\*, K.-H., H.-L. Liao, **A.E. Arnold**, F. Lutzoni. 2018. RNA-based analyses reveal fungal communities structured by a senescence gradient in the moss Dicranum scoparium and the presence of putative multi-trophic fungi. *New Phytologist* 218: 1597-1611.

Bowman\*, E.A., **A.E. Arnold.** 2018. Distributions of ectomycorrhizal and foliar endophytic fungi associated with *Pinus ponderosa* along a spatially constrained elevation gradient. *American Journal of Botany* 105: 687-699.

Sarmiento, C., P.-C. Zalamea, J.W. Dalling, A.S. Davis, S.M. Stump\*, J.M. U’Ren, **A.E. Arnold.** 2017. Soilborne fungi have host affinity and host-specific effects on seed germination and survival in a lowland tropical forest. *Proceedings of the National Academy of Sciences USA* 114: 11458-11463.

**Arnold, A.E**., E.M. Andersen\*, M.J. Taylor\*, R.J. Steidl. 2017. Using cytochrome b to identify nests and museum specimens of cryptic songbirds. *Conservation Genetics Resources* 9: 451-458.

U’Ren, J.M. and **A.E. Arnold**. 2016. Diversity, taxonomic composition, and functional aspects of fungal communities in living, senescent, and fallen leaves at five sites across North America. *PeerJ* 4: 2768.

Arendt\*, K.R., K.L. Hockett, S.J. Araldi-Brondolo, D.A. Baltrus**, A.E. Arnold**. 2016. Isolation of endohyphal bacteria from foliar fungi and *in vitro* establishment of their symbiotic associations. *Applied and Environmental Microbiology* 82: 2943-2949

**Current grant funding (total of >$4 million in grant funds to Arnold from NSF, NIH, USDA, industry since 2005)**

*National Science Foundation (19 awards as PI or Co-PI since 2005, including current support below)*

• Ecology: Collaborative Research: Extending leaf functional trait ecology to leaf symbionts. PI. Total, $371,844; Arnold, $184,872. 2016-2019.

• Genealogy of Life: GoLife: Collaborative Research: Filling the largest void in the fungal genealogy of life (the Pezizomycotina) and integrating symbiotic, environmental and physiological data layers. PI. Total, $2,498,809; Arnold, $734,765. 2016-2020.

**Recent invited lectures**

***100 invited lectures presented since 2005*,** including **invited seminars** at Harvard University, Yale University, University of Nebraska, University of Wisconsin, Madison, Pennsylvania State University, University of Illinois, University of

California, Berkeley, UC Davis, UC Riverside, University of Texas, Austin, University of Minnesota, Oregon State

University, and others; invited **plenary presentations** at meetings of the American Society of Microbiologists, Fungal

Genetics Conference, and others; and **invited symposium presentations** at the Mycological Society of America,

International Lichenology Congress, International Mycological Congress, International Symbiosis Society Congress,

Gordon Conferences, and others. I also have given or co-authored an **additional 48 contributed presentations** at national

and international meetings and **75 other presentations** at statewide, campus-wide, public, or interdisciplinary venues.

**Honors (selected; most recent only)**

2019 Vice President (President elect, 2020, President, 2021), Mycological Society of America

2018 University of Arizona Award for Excellence in Global Education

2018 Shirley O’Brien Award for Diversity and Inclusion, College of Agriculture and Life Sciences, UA

2016 William H. Weston Award for Outstanding Teaching in Mycology, Mycological Society of America

2016 Fellow, Bart Cardon Academy for Teaching Excellence, CALS, UA

**Mentoring and teaching**

2005-present Mentor: 9 postdocs, 12 Ph.D. students (7 graduated; 5 enrolled), 9 M.S. students (8 graduated, 1 enrolled)

2005-present Graduate committee member for 35 Ph.D. and MS students at 10 universities; rotation host, 20 students

2005-present Mentor: 105 undergraduates, including 16 Honors or capstone theses and 4 first-year Honors projects

2005-present Mentor: 35 high school students and 10 K-12 teachers

2006-present Instructor: Microbial Diversity, 17 semesters/summer sessions; Principles of Plant Microbiology, 3 sem.; Advanced Mycology, 3 sem.; First-Year Colloquium, 5 sem; Research Discussions, 19 sem.; SPLS Journal Club, 2 sem.; Teaching Microbiology, 1 sem. **Total enrollment in formal** **courses, 1280 students to date;** does not include guest lectures, independent study, dissertation hours, etc.

**Major service or committee assignments (selected; most recent service only)**

2019-present Chair, Special Committee on Equity and Promotion, School of Plant Sciences

2018-present Chair, P&T Committee, School of Plant Sciences (member, 2017-2018)

2018-present Chair, Awards Committee, School of Plant Sciences

2019-present Member, Academic Program Review Committee, School of Plant Sciences (also 2012-2013)

2017-present Member, Bart Cardon Academy for Teaching Excellence, CALS

2016-present Chair or vice-chair, Steering Committee, Microbiology major (member, 2012-present)

2016-present Member, Review Committee, McGinnies Scholarship in Arid Lands Studies

2019 Member, Review Committee, International Research Development Initiatives, UA Global

2019 Member, Admissions Committee, University of Arizona Post-Bac Research/Education Program

2019 Member, Review Committee, Water Resources Research Center, national preproposals

2019 Member, Review Committee, University Fellows graduate fellowship awards

2019 Reviewer, Research Development Initiative, UA Provost’s Office

2018 Member, Review Committee, Koffler Awards

2017 Member, Search committee, Professor of Practice, Biotechnology, School of Plant Sciences

2016-2019 Member, Annual Performance review committee, School of Plant Sciences

2015-2018 Co-Chair, Chair, or member, Search Committee, Ecosystem Genomics (4 positions)

2016-2017 Member, Committee for Five-year Review of Dean Shane Burgess, UA

2016-2017 Member, Search Committee, Dean of the Honors College, UA

2016-2017 Member, Review Committee, five-year review, Dr. Gary Thompson, Head, AREC

2016-2017 Member, Search Committee, faculty position, Sch. Animal & Comparative Biomedical Sciences, UA

2015-2016 Member, Search committee, SPLS faculty position in Extension Plant Pathology

2012-2016 Director of Graduate Studies, Plant Sciences and Plant Pathology graduate majors

2005-present Curator, Robert L. Gilbertson Mycological Herbarium (10 hours/week; 2-5 employees)

2005-present Various roles as workshop coordinator at UA and leader at 5 national/international meetings

2005-present Editor, Mycologia; associate editor (e.g., American Journal of Botany, Biotropica); also

ad-hoc reviewer of >300 other manuscripts in same timeframe

2005-present Invited panelist, NSF and USDA (11 panels); ad-hoc review of 1-7 proposals annually