Devin R. Leopold

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EDUCATION

2012-2017	Stanford University	Biology – Ecology and Evolution	PhD
2010-2011	Pennsylvania State University	Geographic Information Systems	Post-baccalaureate certificate
1998-2002	Hampshire College	Natural Sciences, Botany	BA

PROFESSIONAL APPOINTMENTS

2020-present	Bioinformaticist/Research Scientist	Jonah Ventures – Boulder, CO
2020-present	Affiliate Faculty	Oregon State University – Corvallis, OR
2017-2020	Postdoctoral Researcher	Oregon State University – Corvallis, OR
2019	Lecturer	Oregon State University – Corvallis, OR
2011-2012	Research Assistant	University of Hawaii – Manoa, HI
2009-2011	Research Assistant	Stanford University – Palo Alto, CA
2008	Biological Science Technician	US Fish & Wildlife Service – Honolulu, HI
2007-2008	Biological Science Technician	US Forest Service – Hilo, HI
2005-2007	Invasive Species Technician	US Fish & Wildlife Service – Hilo, HI
2003	Natural Science Fellow	Hampshire College – Amherst, MA

GRANTS AND AWARDS

USDA, NIFA, Agricultural Microbiomes (co-PI, $749,888)	2020-2023
DOE, Plant Feedstock Genomics (co-PI, $593,452)	2018-2022
NSF, Doctoral Dissertation Improvement Grant ($16,900)	2016-2017
Mycological Society of America, Graduate Fellowship ($2,000)	2016
American Society of Naturalists, Student Research Award ($2,000)	2015

PUBLICATIONS

Leopold, DR, Peay, KG, Vitousek, PM, Fukami, T (2021). Diversity of putative ericoid mycorrhizal fungi increases with soil age and progressive phosphorus limitation across a 4.1 million-year chronosequence. *FEMS Microbiology Ecology*: online early view. doi: 10.1093/femsec/fiab016.

Leopold, DR & Fukami, T (2020). Greater local diversity under older species pools may arise from enhanced competitive equivalence. *Ecology Letters*: 24(2): 310–318.

Leopold, DR & Busby, PE (2020). Host genotype and colonist arrival order jointly govern plant microbiome composition and function. *Current Biology* 30: 3260–3266..

Barge, EG, **Leopold, DR**, Peay, KG, Newcomb, G, & Busby, PE (2019). Differentiating spatial from environmental effects on foliar fungal communities of *Populus trichocarpa*. *Journal of Biogeography* 46: 2001–2011.

Tielens, EK, Neel, MN, **Leopold, DR**, Giardina, CP, & Gruner, DS (2019). Multiscale analysis

of canopy arthropod diversity in a volcanically fragmented landscape. *Ecosphere*: e02653.

Rankin, EE, Knowlton, JL, Gruner, DS, Flaspohler, DJ, Giardina, CP, **Leopold, DR**, Buckardt, A, Pitt, WC, & Fukami, T (2018). Vertical foraging shifts in Hawaiian forest birds in response to invasive rat removal. *PloS ONE* 13: e0202869.

Brown, SP, **Leopold, DR**, & Busby, PE (2018). Protocols for investigating the leaf mycobiome using high-throughput DNA sequencing. In, *Methods in Molecular Biology* (vol. 1848), *Plant Pathogenic Fungi and Oomycetes*.

Leopold, DR, Wilkie, JP, Dickie, IA, Allen, RB, Buchanan, PK, & Fukami, T (2017). Priority effects are interactively regulated by top-down and bottom-up forces: evidence from wood decomposer communities. *Ecology Letters* 20: 1054–1063.

Leopold, DR (2016). Ericoid fungal diversity: challenges and opportunities for mycorrhizal research. *Fungal Ecology* 24: 114–123.

Brandt, AJ, Tanentzap, AJ, **Leopold, DR**, Heenan, PB, Fukami, T, & Lee, WG (2016). Precipitation alters the strength of evolutionary priority effects in forest community assembly of pteridophytes and angiosperms. *Journal of Ecology* 104: 1673–1681.

Vanette, RL, **Leopold, DR**, & Fukami, T (2016). Forest area and connectivity influence root-associated fungal communities in a fragmented landscape. *Ecology* 97: 2374–2383.

Leopold, DR, Tanentzap, AJ, Lee, WG, Heenan, PB, & Fukami, T (2015). Evolutionary priority effects in New Zealand alpine plants across environmental gradients. *Journal of Biogeography* 42: 729–737.

INVITED* OR CONTRIBUTED PRESENTATIONS

Leopold, DR & Busby, PE. Priority effects in the *Populus trichocarpa* leaf microbiome are modulated by genotypic variation in the host. Ecological Society of America, August 2019.

***Leopold, DR** & Busby, PE. Differentiating plant genetic from environmental drivers of agricultural microbiome structure and function. Microbiology Society Annual Conference, April, 2019.

Leopold, DR, Jacobson, D, & Busby, PE. Identifying plant genes associated with pathogen antagonism in *Populus trichocarpa*. Department of Energy, Feedstock Genomics Principle Investigators meeting, February, 2019.

***Leopold, DR**, Busby, PE & Jacobson, D. Distinguishing environmental from host genetic impacts on the *Populus* leaf microbiome. Ecological Society of America, August 2018, and International Symbiosis Society, July 2018.

***Leopold, DR**. Temporal determinants of fungal community assembly. Oregon State University, Department of Botany and Plant Pathology, April 2018.

Leopold, DR & Fukami, T. Species pool influences on the assembly of fungal symbiont communities. Ecological Society of America, August 2017.

Leopold, DR, Vannette, RL & Fukami, T. Forest area and connectivity influence root-associated fungal communities in a fragmented landscape on Hawaii Island. Mycological Society of America, August 2016.

Leopold, DR, Peay, KG, Vitousek, PM & Fukami, T. Fungi associated with *Vaccinium calycinum* throughout long-term ecosystem development. Hawaii Ecosystems Meeting, July 2016.

***Leopold, DR**, Peay, KG, Vitousek, PM & Fukami, T. Fungi associated with *Vaccinium*

calycinum throughout long-term ecosystem development. 8th International Conference on Mycorrhizas, August 2015.

Leopold, DR, Vannette, RL & Fukami, T. Forest area and connectivity influence root-associated fungal communities in a fragmented landscape on Hawaii Island. Association for Tropical Biology and Conservation, July 2015 and Hawaii Ecosystems Meeting, July 2015.

Leopold, DR, Tanentzap, AJ, Lee, WG, Heenan, PB & Fukami, T. Evolutionary priority effects in New Zealand alpine plants across elevation gradients. Island Biology, July, 2014.

Leopold, DR. Local adaptation in an ericoid mycorrhizal symbiosis. Hawaii Ecosystems Meeting, July 2014.

Leopold, DR, Tanentzap, AJ, Lee, WG, Heenan, PB & Fukami, T. Chasing the ghost of competition past; interactions between immigration history and environmental gradients influence modern plant community assembly. Ecological Society of America, July 2013.

Leopold, DR, Hwang, B, Giardina, CP & Fukami, T. Effect of forest area on litter dynamics and net primary productivity (poster). Hawaii Conservation Conference, July 2011.

Leopold, DR, Fukami, T, Giardina, CP, Gruner, DS, Flaspohler, DJ. Forest kīpuka on Mauna Loa: a model system for studying interactive effects of habitat size and introduced rodents on arthropod food webs (poster). Hawaii Conservation Conference, July 2010.

TEACHING / MENTORING

Oregon State University:

Instructor (teacher of record), Plant Community Ecology	2019
Graduate student mentor (3 Ph.D. & 2 Masters)	2018-2020
Guest instructor, Field Ecology Methods: Quantifying biodiversity	2018

Stanford University:

Co-instructor, Wrigley Field Program in Hawaii: Community Ecology Module	2010-ongoing
Teaching assistant, Global Change Biology	2013
Teaching assistant, Plant Biology	2013
Undergraduate research mentor, VPUE Summer Undergraduate Research Program	2009-2012

University of Hawaii:

Guest instructor, Bioinformatics Tools: Current methods in metabarcoding	2017
Guest instructor, Introduction to Statistics: A gentle introduction to R programming	2017
Guest instructor, Advanced Statistics in R: Multivariate analyses for community ecology	2016
Guest instructor, Tropical Plant Pathology: Ecology of mycorrhizal fungi	2016
Undergraduate research mentor, Pacific Internship Program for Exploring Science	2011

OTHER PROFESSIONAL ACTIVITIES

Discussion moderator: Deciphering the Microbiome—Empowering theory, cross-system analyses, and innovative analytics to propel advances in microbiome science. NSF, 2019.

Manuscript reviewer: *Functional Ecology*, *Fungal Ecology*, *Journal of Biogeography, Journal of Ecology, Journal of Vegetation Science, Molecular Ecology, Mycologia, Mycorrhiza, New Phytologist, PeerJ, Plant and Soil, Proceedings of the Royal Society B, Rhizosphere.*

Professional society affiliations: American Society of Naturalists, Ecological Society of America, Mycological Society of America.