

ANTHONY S. AMEND
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DEPARTMENT OF BOTANY
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UPDATED 1.31.17

PROFESSIONAL APPOINTMENTS

2011-Present

Assistant Professor
University of Hawai'i at Manoa, Department of Botany

2011-2012

NOAA Post-Doctoral Fellow in Jennifer Hughes Martiny's Microbial Ecology and Global Change Laboratory, UC Irvine

2008-2010

Post-Doctoral Researcher in Thomas D. Bruns' Fungal Ecology and Evolution Laboratory, UC Berkeley

EDUCATION

2003-2008

University of Hawai'i at Manoa
PhD-Department of Botany

1995-1999

Cornell University
BA-College Scholar Program, Mycology Focus
BA-Anthropology (*cum laude*)

PUBLICATIONS¹

O'Rorke, R.†, B.S. Holland, G.M. Cobian*, K. Gaughen§, **A.S. Amend** (2017) Not just browsing; an animal that grazes microbes facilitates community invasions and instability. *ISME Journal*. **Accepted**

Price M.R., R. O'Rorket, **A.S. Amend**, M.G. Hadfield (2016) Diet selection at three scales: implications for conservation of an endangered Hawaiian tree snail. *Biotropica*. **49**(1) 130-136

¹ All proofed publications are available for download at www.amendlab.com

† Post-Doc co-author

* Graduate Student co-author

§ Undergraduate Student co-author

O'Rorke, R.t, B.S. Holland, G.M. Cobian*, K. Gaughen§, **A.S. Amend** (2016) Dietary preferences of Hawaiian tree snails to inform culture for conservation. *Biological Conservation*. **198** 177-182

Tishhammer K*, G.M. Cobian* and **A.S. Amend** (2015) Global Biogeography of Marine Fungi is Shaped by Environmental Determinates. *Fungal Ecology* **19** 39-46

Amend A.S., A. Martiny, S. Allison, R. Berlemont, M. Goulden, Y. Lu, K.K. Treseder, C. Weihe and J.B.H. Martiny (2015) Microbial response to simulated global change is phylogenetically conserved and linked with functional potential. *ISME Journal* **10** 109-118

Matulich K.L., C. Weihe, S.D. Allison, **A.S. Amend**, R. Berlemont, M.L. Goulden, S. Kimball, A.C. Martiny, J.B.H. Martiny (2015) Temporal variation overshadows the response of leaf litter microbial communities to simulated global change. *ISME Journal* **9** 2477-2489

Amend A.S., K. Matulich and J. Martiny (2015) Nitrogen addition, not initial phylogenetic diversity, increases litter decomposition by fungal communities. *Frontiers in microbiology* **6**. 109.

O'Rorke, R.t, G.M. Cobian*, B.S. Holland, M.R. Price, V. Costello and **A.S. Amend** (2015) Dining local: the microbial diet of a snail that grazes microbial communities is geographically structured. *Environmental Microbiology* **17**(5) 1753-1764

Amend, A.S. (2014) From dandruff to deep sea vents: *Malassezia*-like fungi are ecologically hyper-diverse. *PLoS Pathogens* **10**(8):e1004277

Visagie, C.M., Y. Hirooka, J.B. Tanney, E. Whitfield, K. Mwange, M. Meijer, **A.S. Amend**, K.A. Seifert, and R.A. Samson (2014) *Aspergillus*, *Penicillium* and *Talaromyces* isolated from house dust samples collected around the world. *Studies in Mycology* **78** 63-139

Mouginot C., R. Kiwamura, K. Matulich, R. Berlemont, S.D. Allison, **A.S. Amend**, A.C. Martiny, (2014) Elemental stoichiometry of Fungi and Bacteria strains from grassland leaf litter. *Soil Biology and Biochemistry* **76** 278-285

Adams RI, **A.S. Amend**, J.W. Taylor, T.D. Bruns (2013) A Unique Signal Distorts the Perception of Species Richness and Composition in High-Throughput Sequencing Surveys of Microbial Communities: a Case Study of Fungi in Indoor Dust. *Microbial Ecology* **66**(4) 735-741

Bengtsson-Palme, J., M. Ryberg, M. Hartmann, S. Branco, Z. Wang, A. Godhe, P. DeWit, M. Sanchez-Garcia, I. Ebersberger, F. Sousa, **A.S. Amend**, A. Jumpponen, M. Unterseher, E. Kristiansson, K. Abarenkov, Y.J.K. Bertrand, K. Sanli, K. M. Eriksson, U.

Vik, V. Veldre and R. H. Nilsson (2013) Improved software detection and extraction of internal transcribed spacer (ITS)1 and ITS2 from ribosomal ITS sequences of fungi and other eukaryotes for analysis of environmental sequencing data. *Methods in Ecology and Evolution* **4**(10) 914-919

Kerekes, J., M. Kaspari, B. Stevenson, R. Henrik Nilsson, M. Hartmann, **A.S. Amend**, and T.D. Bruns (2013) Nutrient enrichment increased species richness of leaf litter fungal assemblages in a tropical forest. *Molecular Ecology* **22**(10) 2827-2838

Salick, J., R. K. Moseley and contributing authors: **A.S. Amend**, D. Anderson, A. Byg, W. Law, Ma J., N.J. Ross, Y. Yongping (2012) Khawa Karpo conservation research. In: Salick, J., R. K. Moseley (Eds.) Khawa Karpo: Tibetan traditional knowledge and biodiversity conservation. *Missouri Botanical Garden Press*, St. Louis, USA.

Amend, A.S., T.A. Oliver, L.A. Amaral-Zettler, A. Boetius, J.A. Fuhrman, M.C. Horner-Devine, S.M. Huse, D.B.M. Welch, A.C. Martiny, A. Ramette, L. Zinger, M.L. Sogin, J.H. Martiny (2012) Macroecology of marine bacteria on a global scale. *Journal of Biogeography* **40**(4) 800-811.

Amend, A.S., D.J., Barshis, T.A. Oliver (2011) Community Structure, Transcriptomics and Phylogenetics of Symbiotic Coral-Associated Fungi Indicate Novel Nutritional Roles and Deep-Branching Lineages. *ISME Journal*. **6**(7) 1291-1301

Hynson, N.A., S. Mambelli, **A.S. Amend**, T.E. Dawson (2011) Measuring carbon gains from fungal networks in understory plants from the tribe Pyroleae (Ericaceae): a field manipulation and stable isotope approach. *Oecologia*. **169**(2) 307-317

Amend, A.S., K.A. Seifert, R. Samson, T. D. Bruns (2010) Indoor Fungal Assemblages are Geographically Patterned and More Diverse in Temperate Zones than the Tropics. *Proceedings of the National Academy of Sciences USA* **107**(31) 13748-13753

Amend, A. S., K.A. Seifert, T. D. Bruns (2010) Quantifying Microbial Communities with 454 Pyrosequencing: Does Read Abundance Count? *Molecular Ecology*. **19**(24) 5555-5565

R.H. Nilsson, V. Veldre, M. Hartmann, M. Unterseher, **A.S. Amend**, J. Bergsten, E. Kristiansson, M. Ryberg, A. Jumpponen, K. Abarenkov (2010) An Open Source Software Package for Rapid, Automated Extraction of *ITS1* and *ITS2* from Fungal *ITS* Sequences for use in High-Throughput Community Assays and Molecular Ecology. *Fungal Ecology* **3**(4) 284-287

Amend, A.S., Z. Fang, W. McClatchey (2010) Local Perceptions of Matsutake Mushroom Management, in NW Yunnan China. *Biological Conservation* **143**(1) 165-172

Amend, A.S., M. Garbelotto, Z. Fang, S. Keeley (2010) Isolation by Landscape in Populations of the Prized Edible Mushroom *Tricholoma matsutake*. *Conservation Genetics* **11**(3) 795-802

Amend, A.S., S. Keeley, M. Garbelotto (2009) Forest Age Correlates with Fine-Scale Spatial Structure of Matsutake Mycorrhizas. *Mycological Research* **113**(5) 541-550

Salick, J., **A.S. Amend**, D. Anderson, B. Gunn, Z. Fang (2007) Tibetan Sacred Sites Conserve Old Growth Forests and Cover in the Eastern Himalayas. *Biodiversity and Conservation* **16**(3) 693-706

Salick, J., A. Byg, **A.S. Amend**, B. Gunn, H. Schmidt (2006) Tibetan Medicine Plurality. *Economic Botany* **60**(3) 227-253

Salick, J., Yang Y. P., **A.S. Amend** (2005) Tibetan land use and change near Khawa Karpo, Eastern Himalayas. *Economic Botany* **59**(4) 312-325

MANUSCRIPTS IN REVIEW

Wainwright, B.J†, G. Zahnt, H. Spadling, A. Sherwood, C. Smith **A.S. Amend** (2017) A first report of algal host and fungal interactions from Hawaiian Mesophotic Coral Ecosystems. *PeerJ* **In Review**

Zahn, G.† and **A.S. Amend** (2017) Total foliar microbiome transplants confer disease resistance and survival to a critically-endangered Hawaiian endemic. *Journal of Applied Ecology* **In Review**

SELECTED AWARDS AND GRANTS

2016-2020

Collaborative Research: Plant and Fungal Diversity of Tafea Province, Vanuatu, a Threatened Pacific Hotspot. **National Science Foundation**, BIO DEB. Co-Principal investigator: \$212,624

2016

Stabilization of *Phylostegia kaalensis* using fungal foliar endophytes. **US Army Natural Resources Program**. Principal Investigator: \$40,055

2012-2016

Collaborative Research: Evolution and diversity of foliar fungal endophytes in native Hawaiian plants. **National Science Foundation**, BIO DEB. Principal investigator: \$449,997

2015

Does the introduction of tree snails cause community level succession in the phyllosphere? A short-term longitudinal study, **DLNR DOFAW**. Principal Investigator: \$4,400

2012-2016

Molecular detection of the fungal diet of the critically endangered Hawaiian tree snail *Achatinella mustelina*. **US Army Natural Resources Program**. Principal Investigator: \$301,599

2010-2012

A phylogenetic framework to predict microbial composition and function under global climate change **National Oceanic and Atmospheric Administration, C and GC program**. Fellow: ~ \$130,000

Earlier

2008	University of Hawaii Graduate Student Association Award	\$2,500
2007	ARCS Fellowship in Conservation Biology	\$10,000
2007	Genetics Society of America Travel Scholarship	\$350
2006	Richard Evans Schultes Award, Society for Economic Botany	\$1,500
2006	Dai Ho Chun Research Award	\$4,000
2005/6	Arts and Sciences Alumni Association Award	\$2,500, \$2500
2005	Ecology Evolution and Conservation Biology Research Grant	\$1,500
2005	BP Conservation Programme award	\$12,500
2003	Beatrice Krauss Research Grant	\$500

COURSES TAUGHT

Botany 105, Introductory Ethnobotany
 Botany 454, Natural History of the Hawaiian Islands
 Botany 662, High Throughput Sequencing Approaches for Ecology and Evolution
 Botany 612, The Ecology of Fungal Symbiosis

PROFESSIONAL EXPERIENCE

2010 **Workshop Leader**, International Mycological Congress, Edinburgh, UK
Next generation sequence analysis of fungal communities using the software MOTHR

2004-2005 **Senior Herbarium Assistant, Missouri Botanical Garden**

2003-2007 **Teaching Assistant, University of Hawaii Depts. of Botany and Biology**

2001 **Teacher Everett Middle School, San Francisco Unified School District**

SELECTED PRESENTATIONS (*INVITED)

2017	Fungal Genetics, Asilomar, CA*
2016	Mycological Association of America, Berkeley, CA
2015	Mycological Association of America/Botanical Society of America, Edmonton, Canada
2014	Ecology Evolution and Conservation Biology program seminar
2014	Oahu Army Natural Resources Program Information Transfer*
2013	University of Hawaii, Manoa Astrobiology Institute*
2013	Hawaiian Ecosystems Meeting, UH Hilo
2012	University of Hawaii, Manoa, Depts. of Biology and Botany*
2011	UC Riverside, Dept. of Biology*
2011	Mycological Society of America, Fairbanks, AK
2011	Symposium on Symbioses, UC Sierra Nevada Research Institute*
2011	University of Hawaii, Dept. of Botany*
2010	Sonoma State University, Dept. of Biology *
2010	International Mycological Congress, Edinburgh, UK *
2010	UC Berkeley, Dept. of Environmental Science Policy and Management *
2010	UC Berkeley, Dept. of Plant and Microbial Biology *
2009	Bay Area Mycological Society *
2009	UC Irvine, Dept. of Ecology and Evolutionary Biology *
2009	Alfred P. Sloan Foundation Indoor Environment Workshop, Chicago, IL *
2009	UNITE/NordForsk Network Meeting, Helsinki Finland *
2009	Agriculture and Agrifoods Canada, Ottawa, Canada *
2009	Mycological Society/Botanical Society of America, Penn State University
2008	Botanical Society of America, Vancouver Canada
2008	Mycological Society of America, Snowbird, UT
2007	University of Hawaii, Ecology Evolution and Conservation Biology Seminar
2007	University of Copenhagen, Copenhagen, Denmark *
2006	International Conference of Mycorrhiza, Granada, Spain
2006	Society for Economic Botany, Chiang Mae, Thailand
2005	2 nd Annual Matsutake Festival, Zhongdian, China *
2005	University of Hawaii Dept. of Botany Seminar
2004	International Congress of Ethnobiology, University of Kent, Canterbury, UK

GUEST LECTURES

2016	Botany Graduate Seminar (Bot 610)
2015/2016	Advanced Topics in Marine Biology (Bot 404)
2016	Freshman Botany Seminar (Bot 100)
2014/2015	Sophomore Botany Seminar (Bot 200)
2014	Plant Ecology (Bot 454)
2014/2015	Introductory Ethnobotany Honors (Bot 105a)

2013 Ecological Statistics with R (Bot 612)
2013/2014/2015 Plant Ecology (Bot 454)
2012 Topics in Biocultural Diversity and Conservation (IS 750)

SERVICE AND SYNERGISTIC ACTIVITIES

Editorial Board *PeerJ*

Peer Reviewer (Journals)

The New Phytologist, Molecular Ecology, ISME Journal, PLoS ONE, Mycologia, Microbiology, Microbial Ecology, Biological Conservation, FEMS Microbial Ecology, American Journal of Botany, Fungal Ecology, Economic Botany, Herbalgram, Deep Sea Research

Ad hoc Reviewer (Grants)

Canada Research Chairs, National Research Foundation South Africa, NSF BIO-IOS, NSF BIO-DEB, Alfred P. Sloan Foundation, Austrian Science Fund, Graduate Women in Science

Panelist NSF BIO-DEB Systematics and Biodiversity

Ecology Committee Chair, Mycological Society of America

Hawaii Volcanoes BioBlitz Leader