GEOFF ZAHN, PHD

Translational mycology | Plant-Microbe symbiosis

Current responsibilities:

PI of Zahn microbial ecology lab (6 current students) | Associate editor of *Mycologia* | Mycology & Bioinformatics Teacher (12 credits/semester) | Bioinformatics consultant | PhD committee member (3 students) | Associate Department Chair (Biology) | Director of Bioinformatics Degree | R package developer







Total funding: \$1,373,494

Pending funding

Collaborative Research: Burning questions in microbial ecology: Ecological mechanisms that control microbiome transplant outcomes Co-PI | NSF DEB | \$1,448,000

S-STEM: Faculty-Mentored Experiences for Improving Undergraduate Biology Student Outcomes PI | NSF DUE | \$1,495,000

Myco-Ed: Mycological Curriculum for Education and Discovery Senior Personnel | JGI

Current funding:



CONTACT INFO

gzahn@uvu.edu

github.com/gzahn

A Lab website

ORCID

G Scholar profile

SKILLS

— Computational:

R / Bash / SQL / Python
Unix admin
High-performance
computing
Metagenomics /
Metatranscriptomics

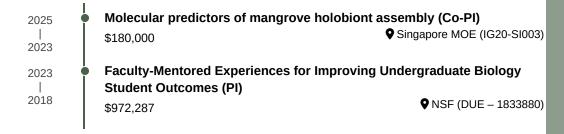
△ Wet-lab:

DNA / RNA
Culturing (Fungi and 'Protists')
Microscopy
(BF/DIC/Fluor/SEM)
Greenhouse

Academic:

Microcosms

Course and program design
Lab management
Grants management
Active learning
CURES
Mentoring





SELECTED RELEVANT PUBLICATIONS

Google Scholar Profile 28 Publications H-index: 14		
2023	•	The core mangrove microbiome reveals shared taxa potentially involved in nutrient cycling and promoting host survival.
		Wainwright BJ, Millar T, Bowen L, Semon L, Hickman KJE, Lee JN, Yeo ZY, & Zahn G. <i>Environmental Microbiome</i>
2023		Connecting the multiple dimensions of global soil fungal diversity Mikryukov, V., Dulya, O., Zizka, A., Zahn, G Tedersoo, L. Science Advances
2023		Inclusion of database outgroups reduces false positives in fungal metabarcoding taxonomic assignments.
		Rawson C, & Zahn G . <i>Mycologia</i> 10.1080/00275514.2023.2206931
2021		Restoration of the mycobiome of the endangered Hawaiian mint Phyllostegia kaalaensis increases its resistance to a common powdery mildew.
		Egan CP, Koko JH, Muir CD, Zahn G , Swift SOI, Amend AS, & Hynson NA. Fungal Ecology
2019		Foliar fungi alter reproductive timing and allocation in Arabidopsis under normal and water-stressed conditions.
		Zahn G, & Amend AS. Fungal Ecology
2019		Fungal aerobiota are not affected by time nor environment over a 13-y time series at the Mauna Loa Observatory.
		Zahn G , Tipton L, Datlof E, Kivlin SN, Sheridan P, Amend AS, & Hynson NA. <i>PNAS</i>
2017		Foliar microbiome transplants confer disease resistance in a critically-endangered plant.

Zahn G, & Amend AS. *PeerJ* 10.7717/peerj.4020

Laching and Mentoring

Designed a new Bioinformatics Degree Program

Experienced with univ. curriculum processes and accreditation

See teaching website for courses

Mycology | RStats/Data Analysis | Bioinformatics | Microbiomes

Research mentor

3 PhD, 2 MS, 38 Undergrad students



SELECTED INVITED PRESENTATIONS (MOST RECENT 3)

Translating mentored undergraduate research into student retention and success

National Science Foundation S-STEM Symposium

Washington, D.C.

2022

2023

Less content, more context: Research as pedagogy in undergraduate mycology courses

Mycological Society of America

9 FL. USA

2018

The causes and consequences of fungal community structure

University of Arkansas/Missouri State University

AR/MO, USA

Societies & Service:

Editor of Mycologia **Education Committee -**Mycological Society of America **IUCN Species Survival Group -**Slime Moulds Specialist Member: ISME, MSA, Intnl. Soc. for Fungal Conserv., Japan SPS Alumni Assoc. NSF GK-12 Teaching Fellow (2011-2012)Faculty senator - UVU (2017-2020) Program and course development (Univ. of Arkansas, Utah Valley Univ.) Faculty search committees (Chair 1x, Member 6x) Council for Undergraduate Research (member)

in Mentorship:

Graduate committee member (4 MS, 3 PhD) Undergrad research mentor (38 students) Lab alumni Junior faculty mentor (2023)

Outreach:

Stockman Grass Farmer Magazine Article ScienceNews Article featuring Article on my marine mycology discoveries Annual science fair judge 6th-grade teacher and inquirybased lesson planning (2011-2012)

</> Code contributions:

CommunityAssemblR Microbiome Workshop R for Biologists **Custom Unix tools** QIIME Database builder Bioinfo Data Skills Course