

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



PROFESSIONAL APPOINTMENTS

Current
|
2023

2023
|
2017

2017
|
2015

Associate Professor

Utah Valley University

📍 Orem, UT

Assistant Professor

Utah Valley University

📍 Orem, UT

Postdoctoral Associate

University of Hawai'i at Manoa

📍 Honolulu, HI

EDUCATION

2015

2010

Ph.D. in Biology

University of Arkansas

📍 Fayetteville, AR

B.S. in Ecology, Evolution, and Systematics

Missouri State University

📍 Springfield, MO

SELECTED FUNDING AND AWARDS

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

🏠 [Lab website](#)

🆔 [ORCID](#)

📄 [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
Microcosms

📖 Academic:

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

- 2025
|
2023
● **Molecular predictors of mangrove holobiont assembly (Co-PI)**
\$180,000  Singapore MOE (IG20-SI003)
- 2023
|
2018
● **Faculty-Mentored Experiences for Improving Undergraduate Biology Student Outcomes (PI)**
\$972,287  NSF (DUE – 1833880)



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. [Environmental Microbiome](#)
- 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. [Mycologia](#) 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. [PNAS](#)
- 2017
● **Foliar microbiome transplants confer disease resistance in a critically-endangered plant.**
Zahn G, & Amend AS. [PeerJ](#) 10.7717/peerj.4020



TEACHING 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)

2023



Translating mentored undergraduate research into student retention and success

National Science Foundation S-STEM Symposium

📍 Washington, D.C.

2022



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

Mycological Society of America

📍 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, Intl.
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)

👤 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
work
[Article](#) on my marine mycology
discoveries
Annual science fair judge
6th-grade teacher and inquiry-
based lesson planning (2011-
2012)

🔗 Code contributions:

[CommunityAssemblR](#)
[Microbiome Workshop](#)
[R for Biologists](#)
[Custom Unix tools](#)
[QIIME Database builder](#)
[Bioinfo Data Skills Course](#)