Andrew H. Morris ***Curriculum vitae***

Education	Ph.D. **University of Oregon**, Biology	2022
	M.S. **Penn State University**, Soil Science	2017
	B.S. **Cornell University**, Plant Sciences	2014

Research Appointments	**Postdoctoral Scholar**, University of Oslo	2024-Present
	Postdoctoral Scholar, University of Oregon	2022-2023
	NSF Graduate Research Fellow	2016-2021
	ARCS Scholar	2017-2020
	Graduate Employee, University of Oregon	2017-2018
	Graduate Research Assistant, Penn State University	2015-2017
	Research Assistant, University of Delaware	2015

Publications

8. Akdeniz, B.C., **Morris, A.H.**, Møller, P., Andreassen, O., Hovig, E., and Dominguez-Valentin, M. 2024. "Evaluation of a combined model of Polygenic Risk Score and mismatch repair genes in the association of colorectal cancer for Norwegian cohort." *Tumori Journal* doi:10.1177/03008916241303648

7. **Morris, A.H.** and Bohannan, B.J.M. 2024. "Quantitative estimates of microbiome heritability and their implications." *Nature Microbiology* doi:10.1038/s41564-024-01865-w

6. **Morris, A.H.**, Isbell, S.A., Saha, D., and Kaye, J.P. 2021. "Mitigating nitrogen pollution with undersown legume-grass cover crop mixtures in winter cereals." *Journal of Environmental Quality* doi:10.1002/jeq2.20193

5. Isbell, S.A., Bradley, B.A., **Morris, A.H.**, Wallace, J.M., Kaye, J.P. 2021. "Nitrogen dynamics in grain cropping systems integrating multiple ecologically-based management strategies." *Ecosphere* doi:10.1002/ecs2.3380

4. Meyer, K.M., **Morris, A.H.**, Webster, K., Klein, A., Kroegerv, M.E., Meredith, L.K., Brændholt, A., Nakamurat, F., Venturini, A., Fonseca de Souzat, L., Shek, K.L., Danielson, R., van Haren, J., Barbosa de Camargot, P., Tsait, S.M., Dini-Andreote, F., Nüsslein, K., Saleska, S. R., Rodrigues, J.L. M., Bohannan, B.J.M. 2020. "Belowground changes to community structure alter methane-cycling dynamics in Amazonia." *Environment International* doi:10.1016/j.envint.2020.106131

3. Meyer, K.M., Hopple, A.M., Klein, A., **Morris, A.H.**, Bridgham, S.D., Bohannan, B.J.M. 2020. "Community structure–ecosystem function relation-ships in the Congo Basin methane cycle depend on the physiological scale of function." *Molecular Ecology.* doi:10.1111/mec.15442

2. **Morris, A.H.**, Meyer, K.M., Bohannan, B.J.M. 2020. "Linking microbial communities to ecosystem functions: what we can learn from genotype-phenotype mapping in organisms." *Philosophical Transactions of the Royal Society B.* doi:10.1098/rstb.2019.0244

1. Seyfferth, A.L., **Morris, A.H.**, Gill, R., Kearns, K.A., Mann, J.N., Paukett, M., and Leskanic, C. 2016. "Soil-incorporation of silica-rich rice husk decreases inorganic As in rice grain." *Journal of Agricultural and Food Chemistry*, 64(19):3760–3766 doi:10.1021/acs.jafc.6b01201

Pre-prints

2. Week, B., **Morris, A.H.**, and Bohannan, B.J.M. 2024 "The Evolution of Microbiome-Mediated Traits." *BioRxiv.* doi:10.1101/2024.03.29.587374v1

1. **Morris, A.H.** and Bohannan, B.J.M. 2023. "Response of soil microbiome composition to selection on methane oxidation rate." *BioRxiv* doi:10.1101/2023.06.23.546315

In Prep

3. **Morris, A.H.**, Meyer, K.M., Bohannan, B.J.M., et al. "Identifying the metagenomic drivers of methane emissions from pastures of the brazilian amazon."

2. Maher, R., **Morris, A.H.**, Bohannan, B.J.M. "Interhost dispersal drives the presence of taxa while disturbance drives the abundance of taxa in a model gut microbiome."

1. **Morris, A.H.**, Akdeniz, Bayram C., Nakken, S., Shadrin, A., Seibert, T.M., Andreassen, O.A., Dale, A., Hovig, E., Frei, O. "Using polygenic hazard scores to predict age at onset of prostate cancer in Nordic populations."

Grants

Contributed to NSF grant: *URoL:ASC: Using Rules of Life to Capture Atmospheric Carbon: Interdisciplinary Convergence to Accelerate Research on Biological Sequestration (CARBS)* Award Number: 2319597 ($3,000,000 USD) 2023

- Designed and conducted pilot experiment and generated preliminary data figures for inclusion in grant (see Morris and Bohannan, 2023, *Biorxiv*)
- Wrote and critically revised work package 3: "Quantify the genomic controls of biological carbon sequestration and potential gains from enhanced carbon sinks through microbiome selection and coalescence"

William R. Sistrom Memorial Scholarship ($1000 USD) 2018

- Awarded $1000 for teaching materials for the Juneau Icefield Research Program

NSF Graduate Research Fellowship Program
Award Number: DGE1255832 ($138,000 USD) 2016

- Conceived of, designed, and wrote research proposal on using stable isotopes to distinguish between nitrous oxide derived from nitrification and denitrification.
- Five year fellowship with three years of financial support.

Hatch/Multistate Grant ($1000 USD) 2013

- Awarded $1000 for undergraduate research on cucurbit grafting techniques.

Awards

University of Oregon, Graduate School

- Elma Hendricks Scholarship 2018
- Oregon Achievement Rewards for College Scientists (ARCS) Scholar: The Florence and Mike Nudelman award 2017

The Pennsylvania State University, Graduate School

- Distinguished Master's Thesis Award 2017
- Annie's Sustainable Agriculture Scholarship 2016
- Scarlet Graduate Fellowship in Watershed Stewardship Award 2015
- Katherine Mabis McKenna Fellowship Award 2015

Cornell University and Ithaca College, Undergraduate

- Flora Brown Award 2010

Presentations and Posters

- **Morris, A. H.** and Bohannan, B. J. M. Quantitative estimates of microbiome heritability and their implications. Nordic Conference on Future Health. Trondheim, Norway. 2024
- Bob Week, **Morris, A. H.**, and Bohannan, B. J. M. The evolution of microbiome mediated traits. Joint Congress on Evolutionary Biology. Montreal, QC, Canada. 2024
- **Morris, A. H.** and Bohannan, B. J. M. Microbiome heritability and the evolution of host-level traits. Symbiosis Theory Workshop. Eugene, OR. 2023
- **Morris, A. H.** and Bohannan, B. J. M. Artificial ecosystem selection reveals relationships between microbiome composition and ecosystem function. ISME Meeting. Lausanne, Switzerland. 2022
- **Morris, A. H.**, Meyer, K. M., Bohannan, B. J. M. Linking microbial communities to ecosystem functions: what we can learn from genotype-phenotype mapping in organisms. Achievement Rewards for College Scientists Annual Luncheon. Portland, OR. 2019
- **Morris, A. H.**, Isbell, S., Kaye, J. Improving nitrogen retention of agroecosystems using interseeded cover crops. Ecological Society of America. Portland, OR. 2017
- **Morris, A. H.**, Isbell, S., Kaye, J. Mitigating nitrogen pollution by interseeding cover crops into spelt. Sustainable Agriculture Cropping Systems Symposium. State College, PA. 2017
- **Morris, A. H.**, Kaye, J. P. Managing Inter-Seeded Cover Crops and Tillage to Decrease Nitrate Leaching and Nitrous Oxide Emissions from Agricultural Soils. Soil Science Society of America Meeting. Phoenix, Arizona. 2016
- **Morris, A. H.**, Isbell, S., Kaye, J. Kemanian, A. Managing cover crops and tillage to decrease nitrogen pollution from organically managed soils in Pennsylvania. Sustainable Agriculture Cropping Systems Symposium. State College, PA. 2016
- Isbell, S. and **Morris, A. H.**. Nitrogen dynamics in cover crop-based reduced tillage cropping systems. Rodale Institute U.S.-Argentina Travel Program. Russell E. Larson Agricultural Research Center, Rock Springs, PA. May 2016
- Saha, D. and **Morris, A. H.**. Unraveling the interactive controls of tillage, residue, and manure additions on nitrous oxide emissions in grain and silage systems. Rodale Institute U.S.-Argentina Travel Program. Russell E. Larson Agricultural Research Center, Rock Springs, PA. May 2016
- **Morris, A. H.** Greenhouse gases in the Reduced-Tillage Organic Systems Experiment (ROSE). ROSE Annual Advisory Board Meeting. Pine Grove Mills, PA. Jan. 2016
- Seyfferth, A. L., **Morris, A. H.**, Kearns, K., Mann, J., Teasley, W., Limmer, M., Amaral, D.. Impacts of Increased Soil Si on Fe Mineral Composition and As Cycling in Rice Paddies. Soil Science Society of America Meeting. Minneapolis, Minnesota. 2015
- Teasley, W, Seyfferth, A. L., **Morris, A. H.**, Johansson, A. The Effect of Si Amendments on As Accumulation and Greenhouse Gas Emissions in Rice (Oryza sativa L). Soil Science Society of America Meeting. Minneapolis, Minnesota. 2015

Teaching Appointments

Faculty, Juneau Icefield Research Program: Geobotany and Ecology	2018
Guest Lecture, University of Oregon: Ecology and Evolution, Evolutionary Processes	2018
Teaching Assistant, University of Oregon: Ecology and Evolution	2018
Teaching Assistant, University of Oregon: Genetics and Molecular Biology	2018
Teaching Assistant, University of Oregon: Cells	2017
Guest Instructor, Penn State University: Impacts of Changing Hydrology on Ecosystem Services in Glacial Systems	2017
Teaching Assistant, Penn State University: Soil Science	2017

Mentorship

Graduate student peer mentor, Institute of Ecology and Evolution, University of Oregon 2020-2021
Rotation student mentor, Bohannan Lab, University of Oregon 2019
Undergraduate student mentor, Kaye Lab, Penn State University 2016
Undergraduate student mentor, Seyfferth Lab, University of Delaware 2015

Service

Organizer of the Oslo Bioinformatics Workshop Week 2024, 2025, Oslo, Norway 2024-2025
- Technical committee - Designed and managed event website, Github repo
- Program committee - Invited and selected instructors

Organizer of the Microbe Brews journal club on the microbiome, Eugene, Oregon, USA 2017-2023
Student Volunteer at the Ecological Society of America meeting, Portland, OR, USA 2017
Reviewer for American Naturalist, Environmental Microbiology, FEMS Microbiology Ecology, Molecular Ecology, Nature Ecology and Evolution, Scientific Data, Scientific Reports, Environmental Microbiology Reports

Media Coverage

Aletha Anderson. (2024, April 28). "UO Scholar Alum Examines Biostatistics and Precision Medicine" *ARCS Foundation Oregon Chapter*
https://oregon.arcsfoundation.org/news/uo-scholar-alum-examines-biostatics-and-precision-medicine
Penn State News. (2017, April 21). "Three graduate students honored with Distinguished Master's Thesis Award" *The Pennsylvania State University*
https://www.psu.edu/news/academics/story/three-graduate-students-honored-distinguished-masters-thesis-award