

EDUCATION	Ph.D. <b>University of Oregon</b> , Biology	2022
	M.S. <b>Penn State University</b> , Soil Science	2017
	B.S. <b>Cornell University</b> , Plant Sciences	2014
RESEARCH	<b>Postdoctoral Scholar</b> , University of Oslo	2024-Present
APPOINTMENTS	<b>Postdoctoral Scholar</b> , University of Oregon	2022-2023
	<b>Graduate Research Assistant</b> , University of Oregon	2017-2022
	<b>Graduate Research Assistant</b> , Penn State University	2015-2017
	<b>Research Assistant</b> , University of Delaware	2015
PUBLICATIONS	<ol style="list-style-type: none"> <li>8. Akdeniz, B.C., <b>Morris, A.H.</b>, 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." <i>Tumori Journal</i> doi:<a href="https://doi.org/10.1177/03008916241303648">10.1177/03008916241303648</a></li> <li>7. <b>Morris, A.H.</b> and Bohannan, B.J.M. 2024. "Quantitative estimates of microbiome heritability and their implications." <i>Nature Microbiology</i> doi:<a href="https://doi.org/10.1038/s41564-024-01865-w">10.1038/s41564-024-01865-w</a></li> <li>6. <b>Morris, A.H.</b>, Isbell, S.A., Saha, D., and Kaye, J.P. 2021. "Mitigating nitrogen pollution with undersown legume-grass cover crop mixtures in winter cereals." <i>Journal of Environmental Quality</i> doi:<a href="https://doi.org/10.1002/jeq2.20193">10.1002/jeq2.20193</a></li> <li>5. Isbell, S.A., Bradley, B.A., <b>Morris, A.H.</b>, Wallace, J.M., Kaye, J.P. 2021. "Nitrogen dynamics in grain cropping systems integrating multiple ecologically-based management strategies." <i>Ecosphere</i> doi:<a href="https://doi.org/10.1002/ecs2.3380">10.1002/ecs2.3380</a></li> <li>4. Meyer, K.M., <b>Morris, A.H.</b>, Webster, K., Klein, A., Kroegerv, M.E., Meredith, L.K., Brændholt, A., Nakamurat, F., Venturini, A., Fonseca de Souza, 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." <i>Environment International</i> doi:<a href="https://doi.org/10.1016/j.envint.2020.106131">10.1016/j.envint.2020.106131</a></li> <li>3. Meyer, K.M., Hopple, A.M., Klein, A., <b>Morris, A.H.</b>, Bridgham, S.D., Bohannan, B.J.M. 2020. "Community structure–ecosystem function relationships in the Congo Basin methane cycle depend on the physiological scale of function." <i>Molecular Ecology</i>. doi:<a href="https://doi.org/10.1111/mec.15442">10.1111/mec.15442</a></li> <li>2. <b>Morris, A.H.</b>, Meyer, K.M., Bohannan, B.J.M. 2020. "Linking microbial communities to ecosystem functions: what we can learn from genotype-phenotype mapping in organisms." <i>Philosophical Transactions of the Royal Society B</i>. doi:<a href="https://doi.org/10.1098/rstb.2019.0244">10.1098/rstb.2019.0244</a></li> <li>1. Seyfferth, A.L., <b>Morris, A.H.</b>, 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." <i>Journal of Agricultural and Food Chemistry</i>, 64(19):3760–3766 doi:<a href="https://doi.org/10.1021/acs.jafc.6b01201">10.1021/acs.jafc.6b01201</a></li> </ol>	

## PRE-PRINTS

3. **Morris, A.H.**, Akdeniz, Bayram C., Nakken, S., Shadrin, A., Seibert, T.M., Andreassen, O.A., Dale, A., Hovig, E., Frei, O. 2026. "Using polygenic hazard scores to predict age at onset of prostate cancer in Nordic populations." *medRxiv*. doi:10.64898/2026.01.07.26343583
2. Week, B., **Morris, A.H.**, and Bohannan, B.J.M. 2024 "The Evolution of Microbiome-Mediated Traits." *bioRxiv*. doi:10.1101/2024.03.29.587374
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 REVIEW

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." in review at *JCO Precision Oncology*

## IN PREP

3. Goleva-Fjellet, S. **Morris, A.H.**, Evens, K.C., Johansen, J., Sæbø, M. Støren, Ø. "Extracellular vesicle associated miRNA response to physiological testing in cross-country skiers: a cross-sectional study."
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.**, Meyer, K.M., Bohannan, B.J.M., et al. "Identifying the metagenomic drivers of methane emissions from pastures of the brazilian amazon."

## 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

#### Guest Lecturer

	University of Oslo, Genome-Wide Association Studies: Why, How and then What?	2026
	<ul style="list-style-type: none"> <li>• Heritability Misconceptions</li> </ul>	
	University of South-Eastern Norway, EE508-1: Applied Genetics	2026
	<ul style="list-style-type: none"> <li>• Bioinformatics</li> <li>• Microbiome Analysis with R</li> </ul>	
	University of Oregon, Bi 283H Honors Bi III: Evol, Diversity & Ecol	2018
	<ul style="list-style-type: none"> <li>• Evolutionary Processes</li> </ul>	
	<b>Faculty</b>	
	Juneau Icefield Research Program, Geobotany and Ecology	2018
	<ul style="list-style-type: none"> <li>• Ecosystem Ecology</li> <li>• Biogeochemistry</li> </ul>	
	<b>Guest Instructor</b>	
	Penn State University, CAUSE 2017: Impacts of Changing Hydrology on Ecosystem Services in Glacial Systems	2017
	<b>Teaching Assistant</b>	
	University of Oregon, Bi 283H Honors Bi III: Evol, Diversity & Ecol	2018
	University of Oregon, Bi 282H Honors Bi II: Gen & Mol Bio	2018
	University of Oregon, Bi 221 Principles of Biology I: Cells	2017
	Penn State University, SOILS 101: Introductory Soil Science	2017
MENTORSHIP	Graduate student peer mentor, Institute of Ecology and Evolution, University of Oregon	2020-2021
	Rotation student mentor, Bohannon 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, 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" <i>ARCS Foundation Oregon Chapter</i> <a href="https://oregon.arcsfoundation.org/news/uo-scholar-alum-examines-biostatistics-and-precision-medicine">https://oregon.arcsfoundation.org/news/uo-scholar-alum-examines-biostatistics-and-precision-medicine</a>	
	Penn State News. (2017, April 21). "Three graduate students honored with Distinguished Master's Thesis Award" <i>The Pennsylvania State University</i> <a href="https://www.psu.edu/news/academics/story/three-graduate-students-honored-distinguished-masters-thesis-award">https://www.psu.edu/news/academics/story/three-graduate-students-honored-distinguished-masters-thesis-award</a>	