

Curriculum Vitae of Beatrice Margareta Bock

Department of Biological Sciences; Center for Adaptable Western Landscapes
Northern Arizona University (NAU), Flagstaff, AZ 86011
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Former name: Beatrice Rodewald
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Education

- Ph.D. Biology**, Northern Arizona University, *Flagstaff, AZ* Expected Spring 2026
Advisors: Dr. Kitty Gehring and Dr. Nancy Johnson
Committee: Dr. Jason Hoeksema, Dr. Nick McKay
Research interests: Fungal ecology, plant-fungal symbioses, conservation ecology
GPA: 4.0
- B.A. Earth and Environmental Sciences**, Vanderbilt University, *Nashville, TN* May 2020
Cum laude, Highest Honors, GPA: 3.8 & Major GPA: 3.9
Advisors: Dr. Simon Darroch & Dr. Michelle Casey
Honors Thesis: Long-term changes in unionid community in Kentucky Lake: Implications for understanding the effects of impoundment on river systems

Experience

- Teaching Assistant**, Northern Arizona University, *Flagstaff, AZ* Aug - Dec 2023; Aug – Dec 2022
Mycology, Supervisor: Dr. Kitty Gehring
- Research Assistant**, Northern Arizona University, *Flagstaff, AZ* Dec 2023- Present; Dec 2022 – Aug 2023 & Dec 2021 – Aug 2022
Biological Sciences & Center for Adaptable Western Landscapes
Supervisors: Dr. Kitty Gehring and Dr. Nancy Johnson
- Guest Lecturer**, Northern Arizona University, *Flagstaff, AZ* Nov 2022; Fall 2023; Spring 2025
Mycology
- Teaching Assistant**, Northern Arizona University, *Flagstaff, AZ* Aug – Dec 2021
Introduction to Cell Biology
- Research Assistant**, Vanderbilt University, *Nashville, TN* Jan 2019 – May 2020 & Aug 2017 – May 2018
Department of Earth & Environmental Sciences, Supervisors: Dr. Simon Darroch & Dr. Michelle Casey
- Student Teaching Assistant**, Vanderbilt University, *Nashville, TN* Fall 2018
Introductory Oceanography, Supervisor: Dr. Steven Goodbred
- Research Assistant**, Stanford University, Palo Alto, CA May 2018 – Aug 2018
Department of Geological Sciences, Supervisor: Dr. Erik Sperling
- Bird Ringing Assistant**, Kvismaren Fågelstation, *Närke, Sweden* May 2017 – July 2017

Publications (underlined authors in green indicate undergraduate student mentees)

- Bock, B.**; Curry, L.; Gehring, C (2025). Better utilization of inorganic nitrogen compared to organic nitrogen by a plant symbiotic fungal isolate of *Alternaria alternata*. microPublication Biology. [10.17912/micropub.biology.001403](https://doi.org/10.17912/micropub.biology.001403).
- Rillig, M. C., Lehmann, A., Mounts, I. R., & **Bock, B. M.** (2025). Concurrent common fungal networks formed by different guilds of fungi. *New Phytologist*, nph.20418. <https://doi.org/10.1111/nph.20418>
- Bock, B.** (2024). beabock/nanodRop: First release with DOI (v0.0.0.9000). Zenodo. <https://doi.org/10.5281/zenodo.12520269>
- Bock, B.**, & Markovchick, L. (2023). Considering Soil Biota and Symbioses in Forest Management and Ecosystem Restoration. *Forests*, 14(6), 1236. <https://doi.org/10.3390/f14061236>
- Bock, B.M.**, Darroch, S. A. F., & Casey, M. (2023). Long-term changes in unionid community in Kentucky Lake: Implications for understanding the effects of impoundment on river systems. *Journal of Freshwater Ecology*, 38(1), 2203712. <https://doi.org/10.1080/02705060.2023.2203712>
- Sperling, E. A., Melchin, M. J., Fraser, T., Stockey, R. G., Farrell, U. C., Bhajan, L., Brunoir, T. N., Cole, D. B., Gill, B. C., Lenz, A., Loydell, D. K., Malinowski, J., Miller, A. J., Plaza-Torres, S., **Bock, B.**, Rooney, A. D., Tecklenburg, S. A., Vogel, J. M., Planavsky, N. J., & Strauss, J. V. (2021). A long-term record of early to mid-Paleozoic marine redox change. *Science Advances*, 7(28), eabf4382. <https://doi.org/10.1126/sciadv.abf4382>
- Smith, E.F., Nelson, L. L., Darroch, S.A., Hodgin, E.B., Husson, J., Mehra, A.K., **Rodewald, B.**, Schiffbauer, J., Selly, T., Strange, M., Tarhan, L.G. "Ediacaran-Cambrian Stratigraphy of the Great Basin, Southwest USA; Mt. Dunfee, Montgomery Hills, Nopah Range, and Kingston Range; April 26th – May 2nd, 2018," 2018.

Presentations

- Oral Presentation, "Interconnections among Plants via Fungi," **Bock, Beatrice**. 3-Minute Research Presentation, Northern Arizona University, Flagstaff, AZ, March 2025.
- Oral Presentation, "Interconnections among Plants via Fungi," **Bock, Beatrice**. Annual Biology Graduate Student Research Symposium, Northern Arizona University, Flagstaff, AZ, February 2025.
- Oral Presentation, "Common fungal networks: Exploring the "Dark Web," **Bock, Beatrice**; Hoeksema, J., Gehring, C.A., Johnson, N.C. 12th International Conference on Mycorrhizae, Manchester, United Kingdom, August 2024.
- Poster Presentation, "Common fungal networks: Exploring the "Dark Web," **Bock, Beatrice**; Hoeksema, J., Gehring, C.A., Johnson, N.C. 12th International Conference on Mycorrhizae, Manchester, United Kingdom, August 2024.
- Poster Presentation, "Common fungal networks: Exploring the "Dark Web," **Bock, Beatrice**; Hoeksema, J., Gehring, C.A., Johnson, N.C. Northern Arizona University Graduate Student Government Poster Symposium, Spring 2024.
- Oral Presentation, "2024 Updates on Common Non-Mycorrhizal Network Experiment," **Bock, Beatrice**, Gehring, C.A., Johnson, N.C. 2024 Sorghum-AMF Annual Meeting. February 2024.
- Poster Presentation, "Common Non-Mycorrhizal Networks: Exploring the "Dark Web," **Bock, Beatrice**, Gehring, C.A., Johnson, N.C. 2023 Gordon Research Conference: Mechanisms of Social Communication in all Kingdoms. August 14, 2023.
- Oral Presentation, "Common Non-Mycorrhizal Networks: Exploring the "Dark Web," **Bock, Beatrice**, Gehring, C.A., Johnson, N.C. 2023 Mycological Society of America Annual Meeting: Elevating Mycology. August 1, 2023.
- Oral Presentation, "Common Non-Mycorrhizal Networks: Exploring the "Dark Web," **Bock, Beatrice**, Gehring, C.A., Johnson, N.C. Hawkesbury Institute for the Environment research symposium: Biological invasions, ecosystems, and global change. May 2023.
- Poster Presentation, "Non-mycorrhizal networks: Exploring the "Dark Web," **Bock, Beatrice**; Gehring, C.A., Johnson, N.C. Center for Adaptable Western Landscapes Poster Symposium, March 2023.
- Oral Presentation, "Exploring common non-mycorrhizal network relationships between plants and fungi," **Bock, Beatrice**; Gehring, C.A., Johnson, N.C. Northern Arizona University Three Minute Research Project Competition, March 2023.
- Poster Presentation, "Systems Analysis of the Beneficial Associations of Sorghum with Arbuscular Mycorrhizal Fungi Studied with Genetics, Genomics, Imaging, and Microbiomics," Bennetzen, J.L., Brailey-Jones, P., Pendergast, T., Zhang, S., **Bock, B.**, [...], Johnson, N.C. 2023 Department of Energy Genomic Science Program - Biological Systems Science Division Conference, March 2023.
- Oral Presentation, "Sorghum Fungal Endophytes: December 2022 Updates," **Bock, Beatrice**; Gehring, C.A., Johnson, N.C. 2022 Annual Meeting of the AMF-Sorghum Systems Biology Project, 2022.
- Poster Presentation, "Non-mycorrhizal networks: Exploring the "Dark Web," **Bock, Beatrice**; Gehring, C.A., Johnson, N.C. Northern Arizona University Graduate Student Government Poster Symposium, 2022.
- Oral Presentation, "Using Bivalve Death Assemblages as an Indicator for Stressed River Ecosystems," **Rodewald, Beatrice**; Casey, Michelle; and Darroch, Simon A.F. Geological Society of America Annual Conference, 2019.
<https://gsa.confex.com/gsa/2019AM/webprogram/Paper337730.html>
- Poster Presentation, "The Black Shale Record of the Ordovician Radiation: New Insights into Redox Change from the Road River Group of Yukon, Canada," **Rodewald, Beatrice**; [...] & Sperling, Erik A. Geological Society of America Annual Conference, 2018.
<https://gsa.confex.com/gsa/2018AM/meetingapp.cgi/Paper/319386>
- Poster Presentation, "Quantifying Trace Fossils on Ediacaran-Cambrian Samples from Death Valley," **Rodewald, Beatrice**; [...]; and Smith, E.F. Southeastern Geological Society of America Annual Conference, 2018.
<https://gsa.confex.com/gsa/2018SE/webprogram/Paper312985.html>

Scholarships/Distinctions/Funding

ARCS Scholar Achievement Rewards for College Scientists. Award value: \$8,500 per year	2023 – Present
Presidential Fellow , Northern Arizona University, <i>Flagstaff, AZ</i> Award value: \$120,000	Fall 2021 – Present
Functional Ecology Prize Winner Best posters at the 12 th International Conference on Mycorrhizae in United Kingdom. Award amount: \$100	August 2024
Arizona Mushroom Society Award Funding towards covering invited speaker expenses at MSA conference 2024. Award value: \$500	Summer 2024
MSA-funded Symposium MSA-awarded funding to cover invited speaker expenses to symposium at the MSA Conference 2024. Award amount: \$5,000	Summer 2024
New Phytologist Foundation Innovation Grant	Summer 2024

Funding to cover invited speaker expenses to MSA Conference 2024. Award value: \$2,500	
Student Awardee at 2024 EMSL Summer School: 1000 Fungal Proteins: Gene to Structure Determination	July 2024
Graduate Student Government Travel Award , Northern Arizona University, <i>Flagstaff, AZ</i>	Spring 2024
Award amount: \$500	
Finalist – Sweden-America Foundation Fellowship	Spring 2024
Support for Graduate Students (SGS) Award , Northern Arizona University, <i>Flagstaff, AZ</i>	2023 – 2024
Funding towards student-led research projects. Award value: \$2,675.	
Fellow , Hawkesbury Institute for the Environment, Western Sydney University, <i>Sydney, AUS</i>	May 2023
NSF-sponsored graduate course in co-invasion biology (https://coinvasions.olemiss.edu/)	
Mentors: Drs. Jason Hoeksema, Steven Brewer, Carla D'Antonio, Nicole Hynson, Rytas Vilgalys	
James Rominger Scholarship	2022
Award value: \$500	
Dr. Leathers Graduate Student Scholarship , Arizona Mushroom Society	2022
Award value: \$1,000	
McMinn Scholar , Vanderbilt University	2018 – 2020
Fully funded tuition and independent research. Award value: ~\$128,000	
Dean's Undergraduate Advisory Board Member , Vanderbilt University	2018 – 2020
President of Wilderness Skills Course 101 , Vanderbilt University	Fall 2019 – Spring 2020
National Merit Scholar , Vanderbilt University	2016 – 2020
Award value: \$8,000	
Dean's List , Vanderbilt University	2016 – 2020
President of Geology Club , Vanderbilt University	2018 – 2019
Vaughan Scholar , Vanderbilt University	2018
Provided funds for summer research at Vanderbilt University. Award value: \$1,450	
Alberstadt-Reesman-Stearns Field Studies Scholar	2018
Funded a 3-week field course in the Colorado Plateau	
McLamore Foundation Scholar	2016
Volunteer Service/Outreach	
NAU OpenRefine Workshop Leader	February 2025
Smithsonian Carpentries Helper, Data Wrangling with OpenRefine	January 2025
https://smithsonianworkshops.github.io/2025-01-smithsonian-online/	
Founder and Organizer of "Aloha Shirt Mondays", NAU. Increased attendance to NAU Biology Department seminars.	Spring 2024-Present
Functional Ecology Blog Author: "Beatrice Bock: Becoming a scientist wasn't a mistake, just a happy little accident." https://functionalecologists.com/2024/09/25/beatrice-bock-becoming-a-scientist-wasnt-a-mistake-just-a-happy-little-accident/	Sep 25, 2024
Science on Tap Speaker: Mysterious Mushrooms and Fungal Friends: The story of how plants interact with each other through fungi. Science presentation to the public at Mother Road Brewing Company, Flagstaff, AZ.	Sep 12, 2024
Organizer of Symposium at MSA 2024 Conference: "Expanding common mycorrhizal networks: novel analyses, methodological advances, conceptual developments, and the future of network research". Obtained funding to cover all expenses for all invited speakers. Toronto, Canada	June 2024
Invasive Species Education at Kinsey Elementary. Led a discussion and activity to teach 50 fifth-grade students about local invasive species.	May 2024
Citation Management Software Workshop Leader , NAU	Fall 2023
Conference Session Moderator , Soil Fungi and Nutrient Cycling, Mycological Society of America Annual Conference, Flagstaff, AZ	Summer 2023
New Phytologist Manuscript Reviewer	Jan 2023
Applied Soil Ecology Manuscript Reviewer	Dec 2022
Co-organizer and Moderator of Special Session , "Considering host-microbial interactions in ecosystem restoration" at the 16th Biennial Conference of Science & Management on the Colorado Plateau & Southwest Region, Flagstaff, AZ	Summer 2022
Member , NAU Biology Graduate Student Association	Fall 2021 - Present

Skills & Certifications

R & RStudio
GitHub
MATLAB
OpenRefine
Microsoft Office Suite
Adobe Creative Cloud Suite (e.g. Photoshop, Illustrator)
Plant identification and dichotomous key use

Professional Societies

Swedish Mycological Association	2023 - Present
Mycological Society of America	2023 - Present
Arizona Mushroom Society	2022 - Present

Relevant Graduate Coursework

Statistical Methods I & II	Visualizing Scientific Results	Earth and Environmental Data Analysis
Mycology	Concepts in Ecology	Integrated Forest Health
Grant Writing	Stable Isotope Ecology	Microbial Network seminar
Microbial Community Analysis		

Other

Citizenship: USA and Sweden

Professional References

Catherine (Kitty) Gehring, PhD | Regent's Professor of Biological Sciences
Northern Arizona University | 928-523-9138 | Catherine.Gehring@nau.edu | *Flagstaff, AZ*

Nancy Collins Johnson, PhD | Regent's Professor of Earth Sciences and Environmental Sustainability
Northern Arizona University | 928-523-6473 | Nancy.Johnson@nau.edu | *Flagstaff, AZ*

Jason Hoeksema, PhD | Professor of Biology
University of Mississippi | (662) 915-1275 | hoeksema@olemiss.edu | *University, MS*

Simon A.F. Darroch, PhD | Assistant Professor of Earth and Environmental Sciences
Vanderbilt University | 615-875-8432 | simon.a.darroch@vanderbilt.edu | *Nashville, TN*

Michelle Casey, PhD | Assistant Professor of Biological Sciences
Towson University | 763-229-3126 | mcasey@towson.edu | *Towson, MD*

Erik A. Sperling, PhD | Associate Professor of Geological Sciences
Stanford University | 650-267-0058 | esper@stanford.edu | *Stanford, CA*