Martina Bennick › Geobiologist

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https://astrobiobot.neocities.org/

Employment History

Dec '23 – · · · ·	**4-H STEM Program Assistant** Penn State, Snyder County, PA.
Jan '21 – · · · ·	**Illustrator, Comic Artist,** & **Graphic Designer** Tri-Amica Studios, remote.
Jan '23 – Oct '23	**Lab Assistant** Automated Testing Lab, Geisinger Medical Center, Danville, PA.
Feb '22 – Jun '22	**Physical Science Technician.** Sediment Lab, OKI Water Science Center, United States Geological Survey, Louisville, KY.
Aug '19 – Dec '22	**Graduate Researcher + Teaching Assistant.** Biology Department, College of Science and Technology, Bloomsburg University.
	Microbiology Lab Technician/Manager. Biology Department, College of Science and Technology, Bloomsburg University.
Aug '18 – Jul '19	**Undergraduate Researcher.** EGGS Department [Environmental, Geographical, and Geological Sciences], College of Science and Technology, Bloomsburg University.

Education

2022 **M.S. Bloomsburg University** in Biology. GPA: 3.74
Thesis title: *Assessing the impacts of anthropogenic acidification on autotrophic stream biofilms using pulse amplitude modulation fluorometry.*
Main foci: microbial ecology, aqueous geochemistry, hydrology, and bedrock geology

2019 **B.S. Bloomsburg University** in Environmental Geoscience. GPA: 3.05
Thesis title: *Determining the origin of intracameral deposits in the Orthocerid genus* Arionoceras.
Minor: Russian & Eastern European Studies

Research Publications

Thesis

1. M. I. Bennick and S. T. Rier, "Assessing the impacts of anthropogenic acidification on autotrophic stream biofilms using pulse amplitude modulation fluorometry," 2022.

Conference Proceedings

1. M. I. Bennick, R. Daku, and S. T. Rier, "Assessing the impacts of anthropgenic acidification on autotrophic stream biofilms with pulse amplitude modulated fluorometry [poster session]," in *COST Research Day (Spring)*, Bloomsburg, Pennsylvania, USA, 2021.
2. M. I. Bennick, "Various effects of microplastics on red crayfish (*Procambarus clarkii*) [poster session]," in *COST Research Day (Spring)*, Bloomsburg, Pennsylvania, USA, 2020.
3. M. I. Bennick, R. Daku, and S. T. Rier, "Comparing algal photosynthetic capacity in impaired streams using pulse-amplitude modulated fluorescence (PAM) [poster session]," in *COST Research Day (Fall)*, Bloomsburg, Pennsylvania, USA, 2020.

4 M. I. Bennick, C. Venn, and A. Van Rythoven, "Determining the origin of intracameral deposits in the Orthocerid genus *Arionoceras*," in *Proceedings of Geological Sciences of America (GSA 2019) Abstracts with Programs*, Best Undergrad Student Poster in Geobiology and Geomicrobiology Division of GSA, vol. 51, no. 5, Phoenix, Arizona, 2019. DOI: 10.1130/abs/2019AM-338024.

Skills

Instruments	Walz Mini PAM II, SEM, imaging microscopy, cathodoluminescent microscopy, petrographic scope, Eureka Manta sonde, spectrophotometer, Lazer diffraction particle size analyzer.
Fieldwork	Able to work in extreme conditions for long durations, extensive fieldwork with streams + other waterways, geologic fieldwork [geomorphology/hydrology], geologic assessment [bedrock + soil identification], paleontology fieldwork + pre-lab prep, paleontology micropreparation, stream assessment + evaluation, wetland delineation, macroinvertebrate ID, kick-netting + light-trapping.
Labwork	Algal + diatom identification, analytical processes [geochemcial, ICP-OES, hydrological, + algae], Geology lab SOPs, Microbiology lab SOPs, media production [plates, tubes, slants], autoclave operation, sediment processing [dry or suspended], fossil micropreparation, molding + casting with Aqua-Resin, small animal care [honeybees, freshwater macroinvertebrates], aquaria supervision + maintenance [red crayfish].
Coding/Stats	R, LaTeX, Html, JMP, C++.
Software	Academic research, ArcMap 10.6, Microsoft Office Suite, Clip Studio Paint v1.12, Photoshop, Illustrator, Blender.
Medical	Medical testing lab SOPs, Epic, Epic Beaker, processing biohazardous samples, maintaining + running the Cobas Roche 8100.
Misc.	STEM educator experience, working with K-12 students in extracurricular capacity, collaborating with institutional and community organizers, networking with local environmental groups for outreach and programming, writing grants for county resources.

Miscellaneous Experience

Field Experience/Professional Development

2023	Polar Impact Mentorship Initiative [CV Workshop]
2019	GSA - Phoenix [presenting]
2018	GSA - Indianapolis [observation]
May-June '18	Paleontology Field Crew Member - Yale Peabody Museum; PEFO
2018-19	President of MPERS [Maps, Planning, Environment, and Rocks Society]; the geosciences student group.

Awards, Grants, Achievements

Jan 2024	$560 grant for Bambu Lab A1 3-D printer - Penn State 4-H STEM outreach
	$302 grant for Arduino education kit - Penn State 4-H STEM outreach
F '20, S '21	COST Research Day: Honorable Mention [Biology]
2019	COST Research Day: Honorable Mention [EGGS]
Fall '18 + '19	**Conference Aid**, Departmental travel grants.
2018	**PEG**, Professional Experience Grant.
	College of Science + Technology Research Grant.

Miscellaneous Experience (continued)

Certification

2023 **PA Safe Check ChildLine Clearance**. Awarded by Pennsylvania Department of Human Services.

2022 **CPR/AED/First Aid Certified**. Awarded by American Red Cross.

2019 **Intermediate Russian**. Awarded by Dr. Mykola Polyuha.

2018 **Scanning Electron Microscope solo operation**. Awarded by Dr. Cynthia Venn.

Memberships/Organizations

April 2024-Present American Geophysical Union.

June 2023-Present Astrobiology SciComm Guild.