Maraina Miles

About Me:

I am currently a PhD student in glacial geology at the University of Maine studying ice sheet behavior in Antarctica and Maine. Before turning my gaze to the sciences, I was a student of contemporary sculpture at Indiana University of Pennsylvania. There, I worked in various mediums, including ceramics, metal, and film to investigate the world around me. This original art-based inquiry formed the basis for my current research goal of learning how the earth has responded to past climate change to give insight into what will happen as global temperatures continue to rise. From this information, communities can better prepare for the environmental changes ahead. I aspire to become an educator and leverage my background in both art and science to guide future students.

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Education

2018-current	Ph.D. in Earth & Climate Sciences. University of Maine. Orono, ME.
2018	Field Camp. University of Oregon. Eugene, OR.
2015-2018	B.S. Geology. Slippery Rock University of Pennsylvania. Slippery Rock, PA.
2009- 2013	B.F.A in Sculpture, Indiana University of Pennsylvania. Indiana, P.A.
2011	Semester Abroad. Academy of Fine Arts, Zagreb, Croatia.

Professional Presentations

Oct. 12, 2022 Miles, Maraina L., Hall, Brenda L., Lowell, Thomas V., Putnam, Aaron E. "A Glacial Geologic Record of Ice Retreat in North-Central Maine, USA." Geological Society of America Annual Meeting. Denver, CO.

Oct. 10, 2021 Miles, Maraina L., Hall, Brenda L., Denton, George H. "Past interactions between local glaciers and the grounded Ross Sea ice in the Royal Society Range, Antarctica" Comer Climate Conference. Virtual.

Sept. 24, 2020 Miles, Maraina L., Hall, Brenda L., Denton, George H. "Asynchronous behavior of local glaciers and grounded Ross Sea ice in the Royal Society Range, Antarctica, during the Last Glacial Maximum and deglaciation." WAIS Workshop 2020. Virtual.

Oct. 14, 2019 Miles, Maraina L., Hall, Brenda L., Denton, George H. "Relationships between the land-terminating Walcott and Howchin Glaciers and adjacent marine-grounded Ross Sea ice in the Royal Society Range, Antarctica." Interdisciplinary Antarctic Earth Sciences Meeting. Julian, CA.

March 19, 2019 Miles, Maraina L., Hall, Brenda L., Denton, George H. "Reconstructing the behavior of the land-terminating Walcott Glacier since the Last Glacial Maximum in the Royal Society Range, Antarctica." Geological Society of America Northeastern Section Meeting. Portland, ME.

Oct. 22, 2017 Miles, Maraina L., Burkhart, Patrick. A., Baldauf, Paul. "A synthesis of Holocene climate proxy records, northern and central Great Plains, USA." Geological Society of America Annual Meeting. Seattle, WA.

April 9, 2017 Miles, Maraina L., Burkhart, Patrick A. "Implications of the Medieval Climate Anomaly on the Great Plains of North America." National Council on Undergraduate Research. Memphis, TN.

March 20, 2017 Miles, Maraina L., Burkhart, Patrick. A., Baldauf, Paul, Hanson, Paul. "Geomorphic forcing upon the White River Badlands in the context of the Medieval Climate Anomaly, as recorded by proxies across the Mid-Continent, North America." Geological Society of America Joint Northeastern and North-Central Section Meeting. Pittsburgh, PA.

Publications

January 2023 Paul Evans Baldauf, Gregory S Baker, Maraina L Miles, Patrick A Burkhart, Allen Gontz, Madeline Rinka, Michael Levenson. Holocene evolution of parabolic dunes, White River Badlands, South Dakota, USA, revealed by high-resolution mapping. Quaternary Research, 1-12.

April 2019 P.E. Baldauf, P.A. Burkhart, P.R. Hanson, M. Miles, A. Larsen. "Chronology of dune development in the White River Badlands, northern Great Plains, USA" Aeolian Research, Volume 37, 2019, Pages 14-24,

Outreach

June 2022	Assisted with "Teens Take on Climate," a program developed through the Comer Foundation bringing high school students to Maine to learn about climate science. Led a day of glacial-geologic activities.
Oct. 2020	Presented at the Geography, Geology and the Environment Department Seminar at Slippery Rock University on my research and provided advice for students
June 2019	Presented to Dedham Elementary school about glaciers in Maine, research in Antarctica, and climate change
June 2019	Guest on hometown radio station WISR Radio"Its your turn."Chatted with the host about my Antarctic research and climate change
May 2019	Article published in Sunday edition of the the Butler Eagle newspaper on research in Antarctica
May 2019	Article published in Slippery Rock Newsletter about my Antarctic research as an alumni
April 2019	Presented to an undergraduate geomorphology class at Slippery Rock University on Antarctic research and applying to graduate school
Dec. 2018	Presented to Old Town Elementary 8th grade class on climate change and doing research in Antarctica

Field Work

March 2023	Expedition to Cordillera Darwin, Chile, to collect surface exposure samples from moraines and in-situ wood within glaciers for radiocarbon dating
2020- 2022	Collected samples within Baxter State Park for surface exposure dating and cored lakes during the winter for sediment samples.
Dec-Feb 2019	Expedition to the Royal Society Range, Antarctica, where I collected samples for ^{14}C and ^{10}Be dating
July-Aug 2018	Field Camp in Oregon. Mapped geologic structures in central Oregon, and used moraine slopes in the Wallowa Mountains of Eastern Oregon to infer moraine age
June 2017	Collected samples for OSL dating in the stabalized dune fields surrounding Badlands National Park, South Dakota
June 2016	Met with residnets on the Pine Ridge Reservation, South Dakota, to gain landowner permission and collected OSL samples within stabalized dune fields

Relevant Experience

2018 - Current	Wilderness First Aid certification through Wilderness Medical Associates
2020 - 2022	Teaching assistant for Intro to Geology (ERS 101) at the University of Maine
May 2018	Teaching assistant for a field investigations course to Yellowstone and the Tetons at Slippery Rock University
Dec. 2017- July 2020	Elected to serve as an Undergraduate Student Representative on the Education Committee of the Geological Society of America
March 2017	Workshops/Special Events Chair Northeastern Section of GSA Meeting Committee, GSA Joint Northeastern-North Central Section Meeting, Pittsburgh, PA
May 2015	AmeriCorps KEYS Service Member, Pittsburgh PA

Honors and Awards

Sept. 2022	University of Maine Graduate Student Research Grant. Awarded $740 to offset travel to Denver, CO, to present my research at the Geological Society of America Annual Meeting.
Jan. 2022	Geological Society of America Graduate Research Grant. Awarded $2300 to assist with research in Baxter State Park, ME.
Nov. 2019	University of Maine Graduate Student Research Grant. Awarded $640 to offset the cost of traveling to Julian, California to present my research at the Interdisciplinary Antarctic Earth Sciences Meeting.
April 2018	Awarded the "Outstanding Student Award" from the department of Geography, Geology, and the Environment at Slippery Rock University. Slippery Rock, Pennsylvania.