Jillian Herlinger

Ph.D. Student, Northwestern University

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Education

Northwestern University, Evanston, IL
Ph.D., Earth and Planetary Sciences*, 2025-present (anticipated May 2030).*
Advisor: Dr. Matthew Hurtgen

University of Maine, Orono, ME
Master of Science in Earth and Climate Sciences*, 2023-2025,* GPA: 3.9/4.0
Thesis: "Paleoceanographic Reconstructions of Laurentide Ice Sheet Meltwater in the Gulf of Maine"
Advisor: Dr. Katherine A. Allen

Calvin University, Grand Rapids, MI
Bachelor of Science in Geology with Honors, *2019-2022,* GPA: 3.9/4.0
Concentration in Earth and Planetary Studies, Minor in Geography
Certificate in Geographic Information Systems

Research Experience

University of Maine Orono, ME — 7/2023 - Present
Graduate Research Assistant; *Advisor: Dr. Katherine Allen*

Project: "Tracking the Demise of the Laurentide Ice Sheet: A New View from the Gulf of Maine"

Calvin University Grand Rapids, MI — 6/2020 – 12/2022
Student Researcher; *Advisor: Dr. Melinda Higley*

Projects: "Using Ground-Penetrating Radar to Assess Coastal Landform Stability", "GPR-Based Model of a Dune Paleosol: An Example from Holland, Michigan, USA"

GZA GeoEnvironmental Brookfield, WI — 6/2021-8/2021
Geospatial Scientist Intern

Calvin University Grand Rapids, MI — 8/2020-5/2021
First Year Research in Earth Sciences (FYRES) Research Mentor

Project: "A Cumulative Look at Michigan Dune Management"

Grants and Awards

Fulbright U.S. Student Program: University of Southampton Award Semi-Finalist (Spring 2023)

Barry Goldwater Scholarship (2022)

Bruce B. Dice Geology Scholarship/Fellowship (September 2021- December 2022)

Geological Society of America (GSA) Student Travel Grant (2022)

Outstanding Graduating Senior in Geology (2022)

Michigan Space Grant Consortium Undergraduate Research Fellowship (2021) - Awarded; did not accept.

Davis Young Research Grant (2020)

Teaching and Outreach Experience

University of Maine Orono, ME 3/2024
Earth and Climate Sciences Fall Research Seminar Coordinator

Maine Science Festival Bangor, ME 3/2024
Exhibitor; *with University of Maine Paleoceanography Group*
Session: Field Trip Day, "Diving into Ancient Oceans"

Bruce Dice Mineralogical Museum, Calvin University Grand Rapids, MI 1/2021 – 12/2022
Museum Curator (Fellowship)

Calvin University Grand Rapids, MI 4/2021 – 5/2021
Teaching Assistant: Great Lakes Geology Field Course

Technical Skills

- **GIS and Mapping Skills:**
  ArcGIS Suite (ArcMap, ArcToolbox, ArcCatalog, etc.), ArcGIS Pro, Survey123, Esri Drone2Map, ERDAS Imagine, Google Earth Pro, GeoMapApp
- **Other Computer Skills:**
  Python coding (proficient), R coding (novice), geophysical data processing (EKKO Project, Knudsen Post-Survey), Microsoft Office Suite, various graphics editors (Adobe Photoshop, Illustrator, etc.)
- **Field Skills:**
  Soil boring via hand auger or trench digging, Pulse EKKO Ground Penetrating Radar, topographic surveying, use of field GPS unit, soil coring, lake coring, sediment and rock core interpretation, soil infiltration testing, field note-taking, sampling glacial boulders for cosmogenic nuclide dating
- **Lab Skills:**
  Foraminiferal sample selection/preparation for radiocarbon, trace element, and stable isotope analysis, sedimentological and soil analysis (moisture content, grain size, loss on ignition), micropaleontology, foraminiferal identification, microscopy (dissection and petrographic), smear slide analysis, trace metal free clean lab procedure, geochemical sample preparation, microbalance analysis of small samples, sediment core sampling
- **Mass Spectrometry Skills:**
  High Resolution ICP-MS (method development, standard tests, small carbonate sample preparation and analysis), Laser Ablation ICP-MS (sample analysis)

Presentations and Publications

Herlinger, J., Allen, K., Hall, B., Putnam, A., Handley, M., Lowell, T., and Russell, J. (in prep). "Meltwater influx during Heinrich Stadial 1 recorded in the Gulf of Maine, USA".

Herlinger, J., Allen, K., Putnam, A., and Russell, J. (2024). "Paleoceanographic Reconstructions of Laurentide Meltwater during the Last Glacial Termination in the Gulf of Maine". To be presented at the Meeting of the American Geophysical Union 2024 (AGU24), poster presentation.

Herlinger, J. & Allen, K. (2024). "Tracking the Demise of the Laurentide Ice Sheet: A New View from the Gulf of Maine". University of Maine Earth and Climate Sciences Graduate Student Research Seminar; poster presentation.

Herlinger, J., & Higley, M. (2022). "GPR-Based Model of a Dune Paleosol: An Example From Holland, Michigan, USA". Geological Society of America Joint 56th Annual North-Central/ 71st Annual Southeastern Section Meeting – 2022; oral presentation. https://doi.org/10.1130/abs/2022nc-374733

Herlinger, J., Machiela J., Millen N., Rudy A., and Tulp, E. (2022). "A Cumulative Look at Michigan Dune Management". FYRES: Dunes Research Report #40. Grand Rapids, Michigan: Department of Geology, Geography, and Environment, Calvin University.

Herlinger, J., & Higley, M. (2021). "Using Ground Penetrating Radar to Investigate the Geomorphic History of Tunnel Park, MI". Annual Meeting of the Michigan Academy of Science, Arts, and Letters, Virtual Conference hosted by Alma College, Michigan, 12 March 2021; oral presentation.

Millen, N., **Herlinger, J.**, Rudy, A., Machiela, J. and Tulp, E. (2021). "A Cumulative Look at Michigan Dune Management". Annual Meeting of the Michigan Academy of Science, Arts, and Letters, Virtual Conference hosted by Alma College, Michigan, 12 March 2021; poster presentation.

Higley, M., VanKanegan, N., and **Herlinger, J.** (2021). "Geophysical Investigation and Subsurface Characterization of Lake Michigan Coastal Landforms". Oral presentation presented by M. Higley at: Michigan Space Grant Consortium; 2020 October 17; Virtual.

Herlinger, J. and Higley M. (2020). "Using Ground-Penetrating Radar to Assess Coastal Landform Stability". Calvin University GEO Department Seminar; 2020 October 9; Grand Rapids, MI; oral presentation.

Herlinger, J. and Higley M. (2020). "Using Ground-Penetrating Radar to Assess Coastal Landform Stability". Calvin University Poster Fair; 2020 October 9; Grand Rapids, MI; poster presentation.