

Claudia Guillot-Wallace, University of New Hampshire, Durham, NH, for her project: *Influence of Permafrost Thaw on Hydrological Connectivity of a Sub-Arctic Peatland*.



Claudia Guillot-Wallace is a second-year master's student studying Geochemical Systems within the Earth Sciences Department at the University of New Hampshire under the advisement of Dr. M. F. Fahnestock. Claudia is originally from San Antonio, Texas and is passionate about isotope and aqueous geochemistry. Her work is influenced by an interest in climate change and its impacts on our environment, especially on vulnerable ecosystems such as the Arctic. She earned her B.A. in Environmental Studies from Macalester College in 2023.

At the University of New Hampshire, Claudia's work focuses on the hydrologic connectivity of a peatland ecosystem 200 km north of the Arctic Circle named Stordalen Mire, located in Abisko, Sweden. She is investigating surface and groundwater interactions to better understand how a warming climate and thawing permafrost is impacting hydrologic flow paths using strontium (Sr) isotope signatures. By targeting "transition sites" within the mire that have undergone changes in vegetation cover and have undergone significant permafrost thaw, she can attempt to understand how rapid thaw and the creation of "thaw ponds" is impacting the flow path of water within the chain of lakes and the groundwater system within Stordalen Mire.

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