

Alexandra Daniels, Boise State University, Boise, ID, for her project: *Investigating volcanic flow hazard at Mt Hood, Oregon.*



Alexandra Daniels is a second year PhD student at Boise State University in Idaho, under the supervision of Dr. Brittany Brand. Her PhD research investigates volcanic flows at Mount Hood in Oregon, with specific focus on pyroclastic density currents (PDCs) and lahars. The project aims to use a multidisciplinary approach to understand the initiation mechanisms and dynamics of these flows at Mount Hood, through numerical modeling and fieldwork. The aim of this research is to obtain inundation timescales

and hazard zones for PDCs and lahars, which can be used to update existing hazard maps at Mount Hood and inform downslope communities of the hazard posed by these flows.

With the support of the Lipman Student Research Grant, Alex is able to conduct fieldwork at Mount Hood to constrain the type and nature of PDCs and lahars that inundate the drainage channels around the volcano. This grant will also allow for visits to the Cascades Volcano Observatory to work alongside researchers and learn the appropriate models for constraining flow dynamics and inundation timescales.

Alex graduated with her Bachelor of Science in Geology from the University of East Anglia in 2022 and her Masters in Volcanology from the University of Bristol in the UK in 2024. Alex hopes to continue exploring and learning more about Cascades volcanism during her time at Boise State and is grateful for the support that the Lipman Grant and the Geological Society of America's Mineralogy, Geochemistry, Petrology, and Volcanology Division in supporting her research.