

Elizabeth Rodgers, Western Washington University, Bellingham, Washington, USA for their project: *Andesite Petrogenesis at Middle Sister of the Three Sisters Volcanic Complex, OR.*

I grew up in Rocky Mount, North Carolina, where trips to the Appalachian Mountains with my dad sparked my interest in geology and the outdoors. I completed my B.S. in Geology at North Carolina State University in 2022, including an incredible field camp with the University of Oregon that solidified my desire to study volcanoes. After graduating, I moved to Eugene, Oregon and spent a year volunteering with the Cascades Volcano Observatory, working on field and laboratory projects in the central Oregon Cascades. These experiences have given me a profound connection to this area and prepared me for my current research project. I am now a Master's student at Western Washington University working with Dr. Mai Sas.



My research examines andesite petrogenesis at Middle Sister within the Three Sisters volcanic cluster in central Oregon. Following a ~10,000-year period of quiescence, Middle Sister erupted predominantly andesitic lavas before transitioning to bimodal eruptions of basaltic andesites and dacites. I am analyzing four andesites from the post-lull eruptive interval 27-22 ka using whole-rock geochemistry, petrography, electron microprobe analysis, and laser ablation inductively coupled plasma mass spectrometry. These data and observations will allow me to determine how the andesites relate to each other and to the succeeding eruptions, whether they record interaction with South Sister magmas, and ultimately how these magmas were generated. This work will improve our understanding of intermediate magma generation as well as the magmatic system and hazard assessments of the Three Sisters region.