

School of Earth and Environmental Sciences Spring 2024 Colloquium Series

Wednesday, April 3, 2024

12:15 PM -1:30 PM

Science Building **C-201**

Zoom ID: 827 8857 5939

Passcode: 321

Jacqueline Singer, Melissa Celik, Cal Mills and Julia Sandke

Student Research Presentations from Soule Research Lab

Please join us for presentations of student research shown at the February 2024 Ocean Sciences Meeting in New Orleans LA. **Jacqueline Singer** will present the results from her study of earthquakes recorded on a network of moored hydrophones deployed along the neovolcanic zone in the Bransfield Strait, Antarctica from January 2019 to February 2020. Her results show that the distribution of earthquakes demonstrate seismic activity associated with both the tectonic movement of the basin flanking normal faults and the magmatic processes associated with back arc rifting. **Cal Mills and Melissa Celik** will present a study of geophysical data collected by the Ocean Observatories Initiative on the Regional Cabled Array at Axial Seamount in the NE Pacific Ocean. Their study looks for trends across multiple instruments and time series related to earthquakes and the movement of magma beneath the caldera. **Julia Sandke** will present her work on building biological training datasets based on video data collected from CAMHD OOI (Ocean Observatories Initiative) at ASHES Vent Field, Axial Seamount. Julia will present the results, which include manually annotated datasets of discernible biology using full frame and bounding box annotators. This has allowed experimentation with computer vision and machine learning to compare changes in abundance over short temporal scales and can be later expanded to create advanced and live biological abundance models.

