In the bare soils of the McMurdo Dry Valleys, life exists despite some of the harshest conditions on the planet: cold temperatures, high salt concentrations, and limited water and nutrients make these ecosystems challenging for organisms. Phosphorus is one such limiting nutrient essential for growth, mostly locked away in rocks and thus inaccessible to organisms.

In this talk, Ruth will tell the story of how phosphorus links geology and biology in the McMurdo Dry Valleys. Volcanoes, ice sheets, and microbes all play a role in determining where phosphorus is plentiful across this extreme landscape.