

An Alpine Excursion – Eleri Clarke

My fieldwork took place over five days between the 3rd and the 7th of July 2017 in the mountains around Zermatt, Switzerland. The purpose was to collect serpentinite samples for my PhD and gain a wider contextual knowledge of the Alps. My PhD so far has been focussed on pre-collected samples gained from collaborations with other researchers. Although this is highly beneficial, it had meant that I had never seen my rocks in the field which limited my contextual comprehension. On this trip, not only was I able to collect 9 more samples for my project I also explored the deep roots of the Alpine orogeny.

Here I was shown a range from ‘pristine’ peridotitic mantle (with cm sized orthopyroxene!) through to fully serpentinitized mantle and dehydrated serpentinite. These rocks were associated with Bundnerschiefers (oceanic floor sediments), eclogites, a hearty greenschist overprint and eclogite facies ocean floor pillow basalts.

The sightseeing did not stop at the rocks: we saw ibex and marmots, stunning views of the Matterhorn, had bed and breakfast in mountain huts, walked beside glaciers and were rewarded with beautiful panoramic mountain views at 3300m.

This was also a brilliant opportunity to meet and talk with geologists from the University of Lausanne and benefit from their extensive Alpine knowledge and experience (and good sense of humour!). Ultimately this trip will be critical to the success of my PhD and I am grateful to all of those who helped me make it happen.



Photo 1 An Ibex posing in front of the Matterhorn



Photo 1 Eclogitized pillow basalts at Pfulwe



Photo 3 Me on Location at 3300m



Photo 2 Me and my supervisor with our Swiss partners from the University of Lausanne