Project code: 2022-1-IT02-KA171-HED-000073309

Name and Surname: Gregorio Umberto Ciullo
Home Institution: Università di Camerino
Host Institution: Montana Technological University
Type of mobility: in person
Duration: from 25/05/2025 to 31/07/2025

Description of the activities:

During this period in the US, I had the chance to work with Prof. Robert Pal and Prof. Alysia Cox. With them I visited the Yellowstone National Park and conducted some research on hot springs and plant populations related to the thermal areas. The goal of the project was to investigate anthropogenically impacted extreme environments, such as mining wastelands characterized by low pH and elevated concentrations of heavy metals and compare them with naturally occurring extreme environments, including hot spring-influenced habitats in the Yellowstone ecosystem, which are also dominated by low pH and naturally occurring heavy metals, such as arsenic. I also helped Robert collecting samples of Lupinus polyphyllus to study the impact of this invasive species in disturbed areas.

With Alysia's team we conducted some studies in different hot springs and I took part in a backcountry trip in Yellowstone, in which we explored some of the oldest portions of forest and collected water samples from unique hot springs.

Through these field trips, spanning more than 17 days in total, I gain a massive experience in working in extreme environments and a deeper understanding of the ecological processes that shape the Yellowstone National Park, the biggest national park in the world.

Under the supervision of Professor Robert at Montana Tech, I engaged in field visits to a range of local ecological restoration sites linked to other graduate students that I had the chance to work with, including vegetation restoration areas, mine land revegetation projects, and wetland restoration efforts. These visits provided in-depth, applied understanding of restoration methodologies and strategies for vegetation recovery in anthropogenically disturbed habitats.

Project code: 2022-1-IT02-KA171-HED-000073309

Backcountry trip expedition team.

Analysing samples collected from the hot spring.

Project code: 2022-1-IT02-KA171-HED-000073309

The undersigned Gregorio Umberto Ciullo authorises the free use of the report and images to be used for information and advertising material by the University of Camerino through the website or social media. This authorization does not allow the use of the images or video footage in contexts that undermine the personal dignity and decorum of the undersigned and in any case for use and/or purposes other than those indicated above.

Place and date Taurisano, 16/09/2025

Signature