IMPACT OF THE COVID-19 PANDEMIC ON POLAR SCIENCE

APECS Alpine Cryosphere Group experiences

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Alpine Cryosphere Group Background

The term 'Alpine' has a pre-Roman origin, with 'alp' meaning for "mountain" referring to the entire mountains system or used as a general substitute for mountains.
These landscapes provide natural and patrimonial goods coming from their distinctive climatic, ecological, geological and hydrological settings.

Mountains also have an integral part of the terrestrial cryosphere, for example, encompassing snow, glaciers, and even permafrost. With this, the mountains play a regulating function for water collection, storage, and distribution toward the lowlands.

In these regions, alpine ecosystems can be defined as high-altitude habitats above the tree line and are subject to extreme abiotic conditions, playing a key role in terrestrial carbon storage.
Understanding the structure and how alpine ecosystems are naturally regulated is a significant challenge, especially their global biogeochemical cycles.

The Alpine Cryosphere Group at the Association of Polar Early Career Scientists was created in 2016, since then, it has provided services to early-career scientists who are interested in research and education on mountainous environments.

How the COVID-19 affected the early career researchers?

Regardless of research projects involve geology, ecology, chemistry, botany, hydrology, or zoology, the emergence of the covid-19 pandemic put a strain on research activities, forcing scientists to adapt and react to this new reality. Sharing these experiences with other research groups working on mountain ecosystems can be used as a valuable lesson, and a reminder to adapt and develop the capacity to amend unexpected scenarios, which will be essential to the future of research related to alpine sciences and perhaps also elsewhere.

Rodrigo Alves is a University Assistant at the University of Graz (Austria). He is a biologist investing in the climate change effects on the terrestrial environment, focusing on cryptogams in high alpine regions. "All our fieldwork is paused due to the Covid-19 situation."

Stories from ur members

Carla Tapia is a posdoc researcher at the Ianigla-Conicet (Argentina). She is a geocryologist investigating the Andean permafrost. During the pandemic, it was impossible for her team to check the instrumental and recover in-situ data.

Sakshi Mankotia is a Ph.D. student in the Department of Geography, Jamia Millia Islamia. She is working in the Ladakh region on Glaciers and their response to Climate change.

What are we working on? Present and future projects

The Alpine Cryosphere Group is one of the multiple internal groups within APECS, supporting early career scientists working on alpine and cryospheric environments, to network with each other, and to provide resources about graduate programs, job opportunities, summer schools, and short courses.

Over the past years, the Alpine Cryosphere Group has organized numerous webinars and awarness activities about mountains such as "International Mountain Day" photo contests.
Most recently, we worked on and finished reviewing the "Mountain Field Guide and International Mountain Resources."

Thus, Alpine Cryosphere Group members can stimulate the defense, preservation, and conservation of the environment, and promote the sustainable development of polar, oceanic, and cryospheric environments.

How can you join us?

An increasing number of researchers are working in the mid-latitude cryosphere, including high-altitude alpine environments. Please, contact us to join!

Get involved with APECS: https://www.apecs.is/get-involved/join-apecs.html
Twitter: @APECSAlpine

What did we learn?

Develop New Skills

"During this period, it was possible to acquire new skills (e.g., satellite image analyses) and enhance the existing ones (e.g., bioinformatics and statistical analysis). Returning to the field is essential for those who must produce data from in-situ samples." Then, without data, it will not be possible to do science.

"The Pandemic has restricted us to our labs, utilizing this time in developing and gaining skills using multiple online resources." for research aptitude by attending and learning via Online Workshops, webinars, and conferences.This has become helpful in pre-assessing the resources required and information awareness before going back to Himalayan Glaciers.

Expect the unexpected

"A pandemic was never into our plans, but now we know everything is possible". Plan ahead: Make sure that your instrumental is well sheltered and protected from the elements. In inaccessible environments, try to always set extra recording memory and power supply.

Keep your networks

In times of restricted face-to-face communication, the personal and professional networks might be disrupted. Take some time to care for your personal connections and explore new ways for sharing information like the social media. Scientific partnerships can be made everywhere!