

Newsletter Fall 2023

ICOP 2024

By Joseph Young (PYRN ICOP committee) & Emma Lathrop (PYRN President)

Support for Early Career Researchers

Permafrost Young Researchers Network (PYRN) is happy to announce financial support from the International Permafrost Association for select Early Career Researcher (ECR)* applicants to attend the International Conference on Permafrost (ICOP) in Whitehorse, Canada June 16-20. Please read the following carefully for information about how to be considered for funding:

PYRN will offer financial support to offset the cost of conference registration. Applicants must be a member of PYRN, ECR and first author for an ICOP extended abstract or paper submission. You can register for a PYRN membership for no cost at this [link](#). PYRN will also advertise travel and lodging support from other organizations on this [website](#). Please check in frequently as new information will be added regularly.

If you have submitted a paper or abstract as first author and would like to be considered for funding, fill out this [application](#) by **December 8th, 2023**. **** IMPORTANT**:** **Please refrain from registering for the conference until award notifications have been made, because registration fees will be covered with a coupon code that can be applied during registration.** The conference organizers will make sure that enough registration spaces will be available when those who receive financial support are announced (mid December 2023).

Please note the **Extended Abstract deadline of December 8th is the last abstract deadline for ICOP**. Funding recipients will be required to submit a FrostByte video presentation prior to the conference (see below for details).

If you have any questions, feel free to email jmyoung1@ualberta.ca

*An Early Career Researcher (ECR) is defined as any student, PhD candidate, or practicing professional who is currently enrolled at a post-secondary institution or has received their highest degree within the past six years. The six-year period can be extended to allow for periods when the ECR was not working in science because of, but not limited to, caring and/or parental responsibilities, disability, personal illness, community obligations or national service.

PYRN-IPA Workshop

PYRN, with support from the International Permafrost Association, will be hosting an all-day workshop to include guest speakers, seminars, breakout sessions, and networking events relevant to permafrost science and engineering, academic and industry career paths, and soft skill development. PYRN will also be hosting a dinner party for ECR attendees in downtown Whitehorse. To register for these events, please fill out [this form](#) by January 30, 2024. Stay tuned for announcements of the workshop speakers and the detailed program by subscribing to the PYRN newsletter and social media.

The workshop and PYRN dinner night are free of charge. To attend you must be:

- Registered to attend ICOP 2024.
- Be a member of PYRN (free to join via: <https://pyn.arcticportal.org/join-us>)
- Be an Early Career Researcher (ECR)*
- RSVP here: <https://forms.gle/xzCUcUPYkccvLjvA8> by January 30, 2024

FrostBytes

All ICOP participants, especially ECRs applying for PYRN financial support, are encouraged to prepare a short (maximum 1 minute) video presentation about their research, called FrostBytes - 'Soundbytes of Cool Research'. Videos will be posted online for viewing after the conference. An award will be given to the best FrostByte presentation. **For inspiration, past FrostByte video submissions are [here](#).**

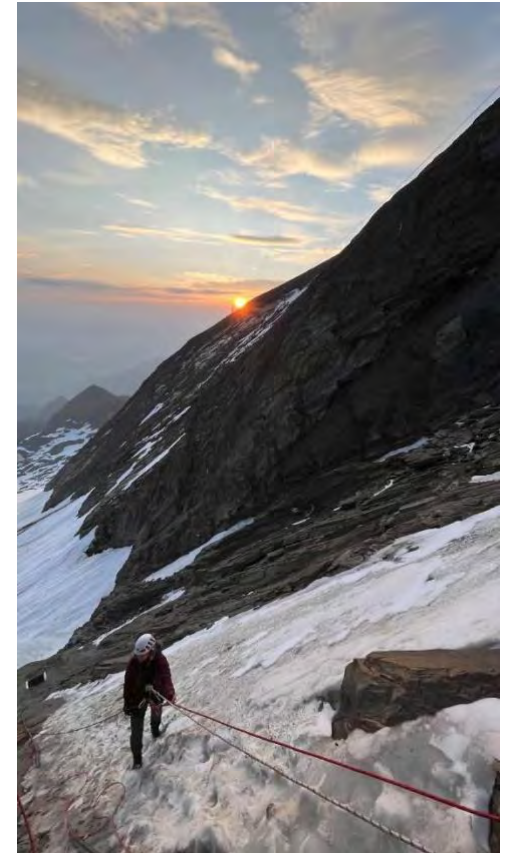
To submit a FrostByte video presentation, upload your submission [here](#) by May 30th, 2024.

Where in the world? PYRN Members' fieldwork photos - 2023

PYRN members conduct fieldwork in some of the most beautiful locations! From the Arctic to the Alps, here is a collection of fieldwork photos shared by PYRN members!



PYRN members Emma Lathrop and Allison Kelley measuring ground surface change along thermokarst transects in Denali National Park, Alaska, USA. (Photo credit: Emma Lathrop)



PYRN Member Maike Offer uses electrical resistivity tomography (ERT) to monitor changes in mountain permafrost



PYRN members Julius Kunz and Tim Wiegand carrying geoelectrical equipment to investigate subsurface permafrost change within a pingo in Tombstone Territorial Park, Yukon, Canada. (Photo credit: Saskia Eppinger)



PYRN Member Soumitra Sakhalkar and his team collecting soil cores for estimating ground ice content, on the North Slope, Alaska, USA. (Photo credit: Soumitra Sakhalkar)



PYRN Member collecting elevation data for mapping the seasonal settlement on the North Slope, Alaska, USA. (Photo credit: Julia White)



PYRN Member Soumitra Sakhalkar adjusting the Trimble GNSS base station to collect GPS data to quantify permafrost landscape change on the North Slope, Alaska, USA. (Photo credit: Julia White)



PYRN Member Xianglong and his field team during a project focusing on frost hazards by permafrost degradation on engineering facilities in the permafrost regions of Northeast China (Photo credit: Xianglong Li)



PYRN member Kaytan Kelkar conducting reconnaissance for mountain permafrost monitoring sites in Denali National Park, Alaska, USA. (Photo credit: Kaytan Kelkar)

PYRN at the One Planet Polar Summit

By Emma Lathrop (PYRN President)

I had the privilege of representing early-career researchers (ECRs) at the One Planet Polar Summit, hosted in Paris, France, November 8-10th. The summit convened scientific, political, and NGO representatives from around the globe with the aim of addressing the urgent climate crisis in polar regions. Key themes of the meeting revolved around identifying priorities for polar science, indigenous knowledge and impacts to polar communities, and the critical role of international cooperation in preserving these vulnerable ecosystems. There was a strong emphasis from scientific leaders on the inclusion of ECRs at the science policy interface and the importance of ECRs in the future of polar research.

Central to the summit was the emphasis on signing the 'Paris Call.' In this declaration, leaders and stakeholders from signing countries and organizations reaffirmed their support for the Paris Agreement and its goals to limit global warming to well below 2 degrees Celsius. The call reiterated the commitment to strengthen efforts in reducing carbon emissions, fostering sustainable practices, and promote international collaboration to protect the polar regions.

The first day of the meeting focused on determining and discussing key priorities for the future of polar research. Breakout session discussions focused on glaciers and the water cycle, sea ice and the oceans, and permafrost carbon and georisks (moderated by Claire Treat and Christopher Burn). I represented ECR on the permafrost carbon breakout session panel alongside other permafrost experts: Claire Treat, Guido Grosse, and Gustaf Hugelius. In this session we discussed estimates of permafrost carbon emissions, the factors that control emissions, the impacts of permafrost thaw on local communities, and priorities for future research. Key priorities from all breakout sessions were incorporated into a scientific report on the cryosphere, which was added as an addendum to the Paris Call.

The event culminated with a meeting of key heads of state from governments that attended the Summit, including French President Macron, in which countries would sign the Paris Call. Jérôme Chappellaz and Antje Boetius delivered a summary of the scientific report to those attending this meeting.

It was an honor to represent ECRs and to make clear the importance of permafrost research in addressing climate change on the global stage.

For more information on the Paris Call and the One Planet Polar Summit, see: <https://oneplanetsummit.fr/en/events-16/one-planet-polar-summit-284>.

Featured PYRN Branch:

PYRN DACH



By Saskia Eppinger (D), Giulia Bertolotti (A) & Julie Wee (CH)

PYRN members from Germany (D), Austria (A) and Switzerland (CH) are currently working on Alpine and Arctic permafrost. Their field sites are located in the Alps: from Austria, passing by Germany, Italy and Switzerland, to France, as well as on different Arctic sites in Alaska, Canada and Greenland. For earth observation the whole pan-arctic region is currently monitored.

After busy and fruitful summer field campaigns, young researchers are compiling their results to present them in conferences or in publications. Themes such as the hydrology of alpine rock glaciers, erosion along permafrost coasts, retrogressive thaw slumps in Greenland, pingos in Canada and many other interesting topics are being addressed. Many results from the different D-A-CH permafrost working groups will also be presented at the ICOP24 next summer and the EGU24 in Vienna in April 2024. For EGU24, we would like to recommend the session CR5.1 [Geophysical and in situ methods in the Cryosphere](#), co-convened by PYRN-DACH members J. Limbrock and S.Eppinger, as well as other sessions in GM10 and CR4.

Furthermore, we would love to highlight some recently published articles by members from the University of Wuerzburg: J. Kunz wrote a paper on [retrogressive thaw slumps in Canada](#) and S. Buchelt on [seasonal dynamics of alpine rock glaciers](#). T. Rettelbach from the Alfred-Wegener-Institute Potsdam, wrote a paper on “super-high-resolution imagery on arctic permafrost”, which you can already read as a [preprint](#).

If you are interested in regional input on upcoming events, email us at pyn.dach@gmail.com, to become part of our mailing list.

Announcements

PYRN at AGU23

Are you attending AGU's Fall 2023 Meeting in San Francisco next week? Join PYRN members at the US Permafrost Association's Annual Meeting and Social! RSVP [here](#) to attend.

Please consider attending presentations of fellow PYRN members in the following sessions:

-Monday, December 11th: 8:30-10 am EP11A-Changing Permafrost Landscapes, Oral, 2001-West.

- Monday, December 11th: 2:10pm-3:30 pm C13A Climate Change Impacts on Ground Ice, Thermokarst Process, Geocryohydrology, and Ecosystem Dynamics of Permafrost Regions, Oral, 2004-West.


- Tuesday, December 12th: 8:30am-12:50 pm C21C Advances in Observing, Quantifying, and Modeling Permafrost, Snow, and Vegetation Dynamics in High-Latitude or High Elevation Environments II, Poster, Poster Hall A-C-South.

-Wednesday, December 13th: 2:10pm-6:30 pm NS33B Innovation in Geophysical Methods for the Advancement of Permafrost Characterization, Poster, Poster Hall A-C-South.

-Friday, December 15th: 8:30am-12:50 pm A51X Remote Sensing Synergisms in Reducing Northern Permafrost Methane Uncertainty, Poster, Poster Hall A-C-South.

-Friday, December 15th: 10:20am-11:50 pm B52D Vulnerability of Permafrost Carbon to Climate Change II, Oral, 3009-West.

-Friday, December 15th: 10:20am-11:50 pm C52B Observing and Modeling of Earth Surface Cryogenic Processes and the state of Permafrost I, Oral, 2004-West.



EVERYONE IS WELCOME AT THE
US PERMAFROST ASSOCIATION'S

ANNUAL MEETING & SOCIAL

APPETIZERS AND DRINKS!
GOOD CONVERSATION, GOOD PEOPLE,
GOOD TIMES!

**MONDAY, DECEMBER 11 AT 7:00 PM
BLACK HAMMER BREWING COMPANY
544 BRYANT ST, SAN FRANCISCO**

RSVP: [HTTPS://USPA.MEMBERCLICKS.NET/RSVP-FOR-USPA-SOCIAL-EVENT-AT-AGU](https://uspa.memberclicks.net/rsvp-for-uspa-social-event-at-agu)

Nunataryuk Permafrost Atlas



For the past 6 years, the [Nunataryuk](#) permafrost project (hosted by the Alfred Wegener Institute in Potsdam, EU H2020 funded) has been collaborating with 26 partners from 13 different countries, scientists both from the project and outside, cartographers, local Arctic Indigenous Peoples, artists, and science writers to create the first of its kind [Arctic Permafrost Atlas](#). This atlas compiles the results from the Nunataryuk project using maps and illustrations, providing the reader a comprehensive overview of the state of present permafrost conditions in the Arctic.

The Arctic Permafrost Atlas is now available [online](#). More information on the atlas is provided in an article on the Grid Arendal [website](#): the science communications partner that produced and edited the atlas. The corresponding exhibition is currently hosted at the Arctic Circle Assembly in Reykjavik, created with the support of the International Arctic Science Committee (IASC). The aim is to make this into a traveling exhibition, to spread awareness and inform the public about permafrost as a component of the Cryosphere. The panels from the exhibition are available in a [PDF format](#).

PYRN Social Media and Share your achievements

Follow PYRN on Twitter, Facebook, and Instagram.

We use social media to disseminate PYRN articles, information on events and conferences, and share pictures of our members' research activities!

Be part of the PYRN social media community and reach out to hundreds of permafrost enthusiasts! Use the tag **@pyrn_official** and hashtag **#pyrn** on X (Twitter), Facebook and Instagram on to share your updates or pictures via the 'PYRN' account.

Permafrost Young Researchers Network

The Permafrost Young Researchers Network (PYRN) is fostering innovative collaboration and seeking to promote future generations of permafrost researchers.

<http://pyrn.arcticportal.org>



This Newsletter was prepared by PYRN ExCom 2022-2024 team

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