# Permafrost Coastal Systems Network (PerCS-Net)

The Permafrost Coastal Systems Network accelerates the process of scientific discovery, facilitates public access to scientific data, and promotes convergence through an international, transdisciplinary network focused on science, engineering, and societal issues associated with permafrost-affected coasts and communities in the Arctic.

**Spring/Summer 2023**

## Arctic Coastal Observations, Research, and Networking Series

The ACORN series is a monthly online seminar series by PerCS-Net members on topics related to Arctic coastal research. During the first half of 2023, we launched the series and hosted five excellent presentations. The zoom recording of each is available on the PerCS-Net webpage. Please click the image flier below for more information. Many thanks to Cansu Demir and Sasha Peterson for coordinating the ACORN series!

ACORN Presenters:

- Roger Creel, Columbia University
- Ashley Stanek, USGS
- David Nielsen, Max Planck Institute for Meteorology
- Julia Guimond, WHOI
- Josef Elster, University of South Bohemia






## 12th International Conference on Permafrost - Integrating Perspectives of Permafrost Thaw, Change, and Adaptation

The 12th ICOP Conference is coming up next summer from 16-20 June 2024! The conference will address the most recent developments and stimulate engaging technical and scientific discussions among academics, professionals, contractors, suppliers, and students. The impacts of climate change and economic development have significantly changed the Arctic, in recent decades, resulting in a wealth of research initiatives and challenging engineering projects. The City of Whitehorse, Yukon, is the ideal place to showcase these recent developments and the current challenges firsthand.

**Important Dates:**

Deadline for Full Paper Submissions - 31 August 2023
Deadline for Extded Abstract Submissions - Early 2024
Early Bird Registration is already open!

*Check Out Session 3f!*

## Upcoming Conference Sessions at AGU and OSM!

There are two upcoming international conferences featuring sessions on Arctic Coastal Dynamics and Processes.

The American Geophysical Union (AGU) Annual Fall Meeting, 11-15 December 2023, San Francisco, CA:

- Session Title: C011 - Arctic Coastal Dynamics
- Conveners: Louise Farquharson, Anna Irrgang, Melissa Ward Jones, and Benjamin Jones
- Abstracts Due: 02 August 2023
- Weblink: hhttps://agu.confex.com/agu/fm23/prelim.cgi/Session/191778

The Ocean Sciences Meeting (OSM), 18-23 February 2024, New Orleans, LA

- Session Title: HE001 - Arctic coastal dynamics
- Conveners: Emily Eidam, Madison Smith, Julia Guimond, Roger Creel, and Benjamin Jones
- Abstracts Due: 13 September 2023
- Weblink: https://agu.confex.com/agu/OSM24/prelim.cgi/Session/198163

Currently, PerCS-Net includes 232 members from 22 countries, with nearly half of the network consisting of early career researchers! Please help us continue to bring together the international coastal permafrost community by providing material for future quarterly newsletters and by spreading the word through your own networks.

## Vision Statement

PerCS-Net envisions building:

A sustainable, pan-Arctic permafrost coastal observatory network providing coordinated and timely information to researchers, managers, indigenous stakeholders, and the general public

A transdisciplinary research network that fosters linkages in order to amplify the broader impacts of each individual network and maintain a circumpolar alliance for Arctic coastal community information exchange

An international community that fosters and empowers the next generation of students, early-career researchers, and indigenous communities faced with the known and unknown challenges of the future Arctic System.

# PerCS-Net Member Spotlight:

## Sasha Peterson

**Hometown:** Las Cruces, NM
**Affiliation:** Environmental Science & Engineering, University of Texas at El Paso / Beaufort Lagoon Ecosystems Long Term Ecological Research
**Research focus:** Permafrost coastal erosion - understanding patterns, drivers, and biogeochemical impacts
Geographic focus: Elson Lagoon (near Point Barrow), Utqiaġvik, Alaska
**Current challenge:** To better understand the spatiotemporal patterns and drivers of erosion in Beaufort Lagoons, across the North Slope of Alaska. Within the Elson Lagoon, I study the distribution of soil organic carbon in coastal permafrost, its fate into nearshore ecosystems, and to the atmosphere in the form of CO2 and CH4.
**Recommended reading:** Doering et al. 2022 | Improving the relationships between Indigenous rights holders and researchers in the Arctic (DOI: 10.1088/1748-9326/ac72b5)
**Finding balance:** rock climbing, pottery, and reading

# New Network Member Publications


Buzard, R.M., Kinsman, N.E., Maio, C.V., Erikson, L.H., Jones, B.M., Anderson, S., Glenn, R.J. and Overbeck, J.R., 2023. Barrier Island Reconfiguration Leads to Rapid Erosion and Relocation of a Rural Alaska Community. Journal of Coastal Research.

Catipovic, L., Longnecker, K., Okkonen, S.R., Koestner, D. and Laney, S.R., 2023. Optical insight into riverine influences on dissolved and particulate organic carbon in a coastal Arctic lagoon system. Journal of Geophysical Research: Oceans, p.e2022JC019453.

Hauser, D.D., Glenn, R.T., Lindley, E.D., Pikok, K.K., Heeringa, K., Jones, J., Adams, B., Leavitt, J.M., Omnik, G.N., Schaeffer, R. and SimsKayotuk, C., 2023. Nunaaqqit Savaqatigivlugich—working with communities: evolving collaborations around an Alaska Arctic observatory and knowledge hub. Arctic Science.

Kavan, J. and Strzelecki, M.C., 2023. Glacier decay boosts the formation of new Arctic coastal environments—Perspectives from Svalbard. Land Degradation & Development, 34, 3467-3474.

Kislov, A., Alyautdinov, A., Baranskaya, A., Belova, N., Bogatova, D., Vikulina, M., Zheleznova, I. and Surkova, G., 2023. A Spatially Detailed Projection of Environmental Conditions in the Arctic Initiated by Climate Change. Atmosphere, 14(6).

Kizyakov, A.I., Ermolov, A.A., Baranskaya, A.V. and Grigoriev, M.N., 2023. Morphodynamic Types of the Laptev Sea Coast: A Review. Land, 12(6), p.1141.

Luetzenburg, G., Townsend, D., Svennevig, K., Bendixen, M., Bjørk, A.A., Eidam, E.F. and Kroon, A., 2023. Sedimentary coastal cliff erosion in Greenland. Journal of Geophysical Research: Earth Surface, p.e2022JF007026.

Ogorodov, S., Badina, S. and Bogatova, D., 2023. Sea Coast of the Western Part of the Russian Arctic under Climate Change: Dynamics, Technogenic Influence and Potential Economic Damage. Climate, 11(7), p.143.

von Biela, V.R., Laske, S.M., Stanek, A.E., Brown, R.J. and Dunton, K.H., 2023. Borealization of nearshore fishes on an interior Arctic shelf over multiple decades. Global Change Biology, 29(7), pp.1822-1838.

Vonk, J.E., Speetjens, N.J. and Poste, A.E., 2023. Small watersheds may play a disproportionate role in arctic land-ocean fluxes. nature communications, 14(1), p.3442.

Zhang, Y., Jafarov, E., Piliouras, A., Jones, B., Rowland, J.C. and Moulton, J.D., 2023. The thermal response of permafrost to coastal floodplain flooding. Environmental Research Letters, 18(3), p.035004.


For more information, please consider joining PerCS-Net to keep informed about upcoming activities and new products – https://permafrostcoasts.org. We are very excited to build this International Network of Networks with the community!