

My Impressions of the Mombetsu Symposium

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Participating in the Mombetsu Symposium was a valuable and inspiring experience for me as an early-career researcher studying permafrost dynamics and Arctic environmental change. The symposium provided an excellent platform to share research results, exchange ideas with scientists from different disciplines, and learn about ongoing studies related to cold-region environments and climate impacts.

At the symposium, I presented my research on the long-term effects of wildfires on permafrost in the continuous permafrost zone of northern Yukon, Canada. By combining satellite-based Interferometric Synthetic Aperture Radar (InSAR) measurements with field observations, my study examines how ground deformation evolves for decades after fire disturbance. The results show that areas initially affected by post-fire subsidence can gradually transition toward uplift and stabilization over time, indicating possible permafrost recovery associated with vegetation regrowth and organic layer development. Presenting this work allowed me to receive constructive feedback, discuss methodological approaches with specialists in remote sensing and field observation, and gain new perspectives that will help improve my future research.

Beyond my own presentation, I greatly benefited from and enjoyed attending other talks, discussions, and other events, including the wonderful reception dinner, tours, and cute local animals (Figure 1). The symposium highlighted the importance of interdisciplinary collaboration, long-term monitoring, and integrating remote sensing with field data to better understand environmental processes in cold regions. Listening to researchers working on ecology, hydrology, and geophysics broadened my understanding of how different scientific approaches can complement each other when addressing complex climate-related challenges. Looking ahead, my future aspiration is to continue developing integrated approaches that combine satellite geodesy, field measurements, and environmental modeling to better quantify permafrost stability under climate warming and disturbance events such as wildfire and lake drainage. I hope my work can contribute to improving predictions of Arctic landscape change and to training the next generation of researchers in using advanced Earth observation technologies for environmental monitoring. I also aim to actively participate in international collaborations and scientific meetings, and to share knowledge with students and early-career scientists to support an open and cooperative research community.



Figure:
A local fox encountered near Mombetsu city