

A user-friendly, multi-parameter protocol for monitoring permafrost thaw

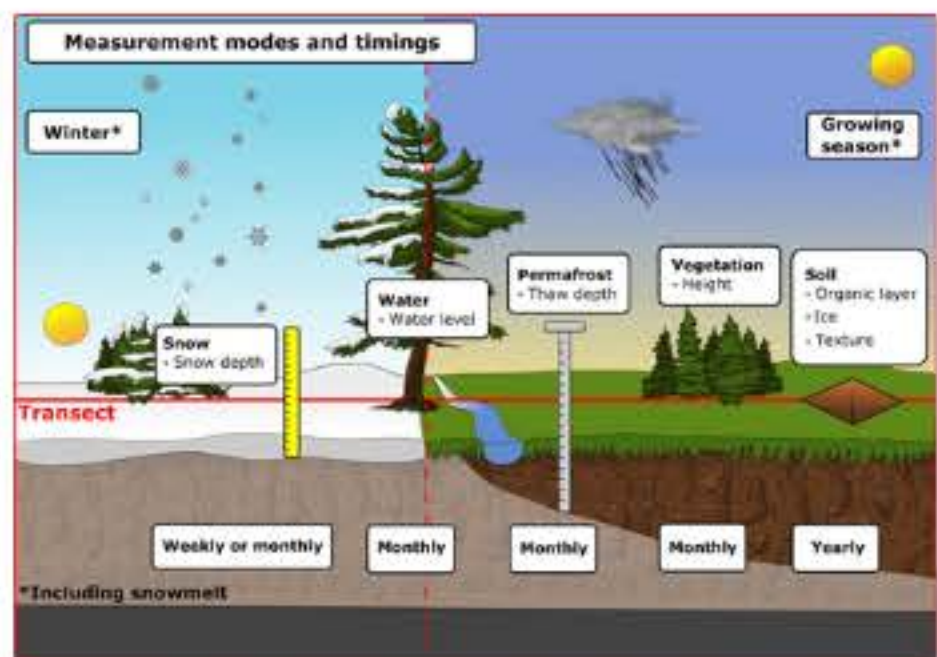
T-MOSAIc Permafrost Thaw

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Multi-parameter protocol

Winter and growing season measurements



Measurements of multiple parameters on the same transect to capture (co)variability

Standardized measurements for everyone

- no specialized skills or equipment needed
- mobile app and tutorials provide guidance
- standardized measurements and metadata

Measuring snow depth

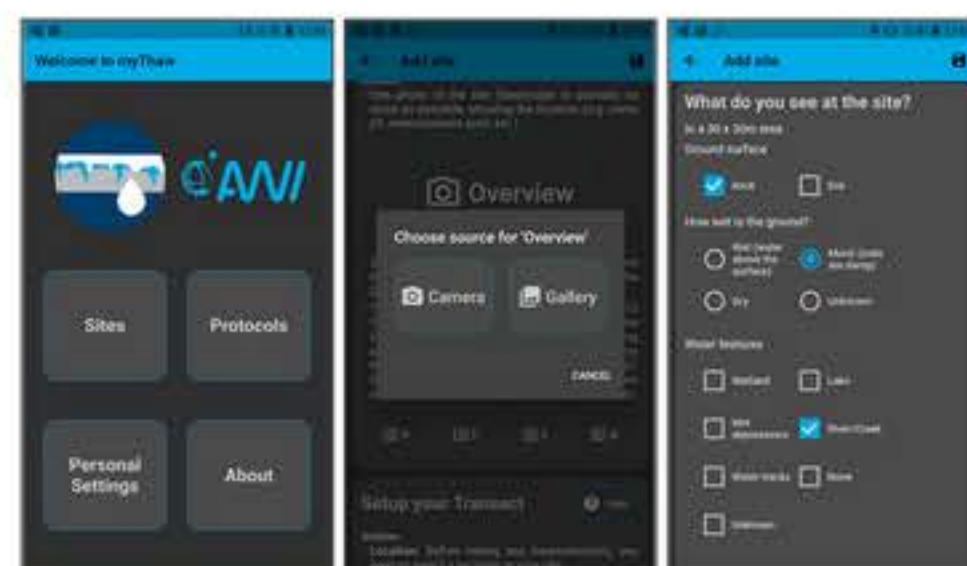


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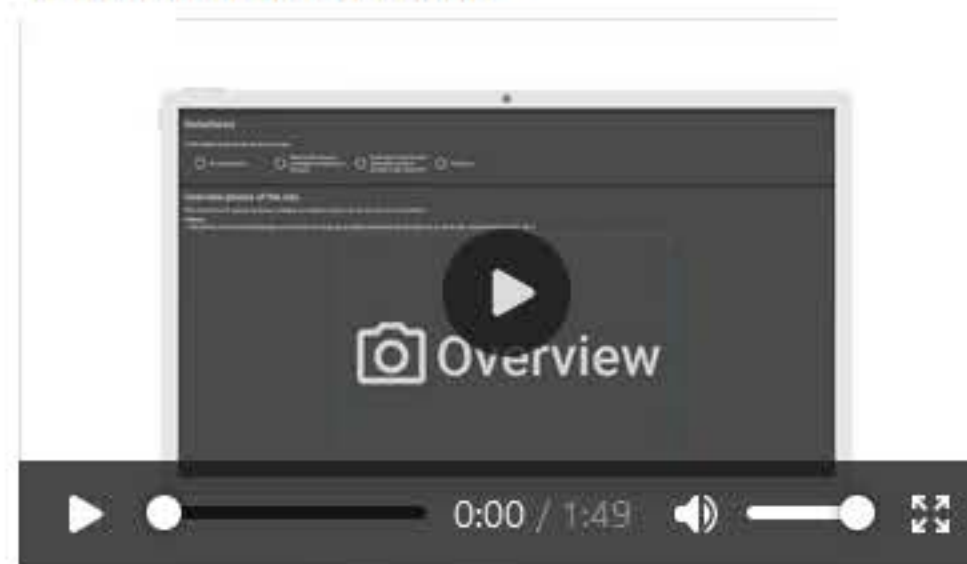
User-friendly app and tutorials

myThaw app

- for [Android](#) and [iOS](#)
- guides through measurement process
- ensures compliance with metadata standards
- transmits records to data portal



Tutorial: myThaw app



More video tutorials are available, e.g. for measuring snow depth (on the left)

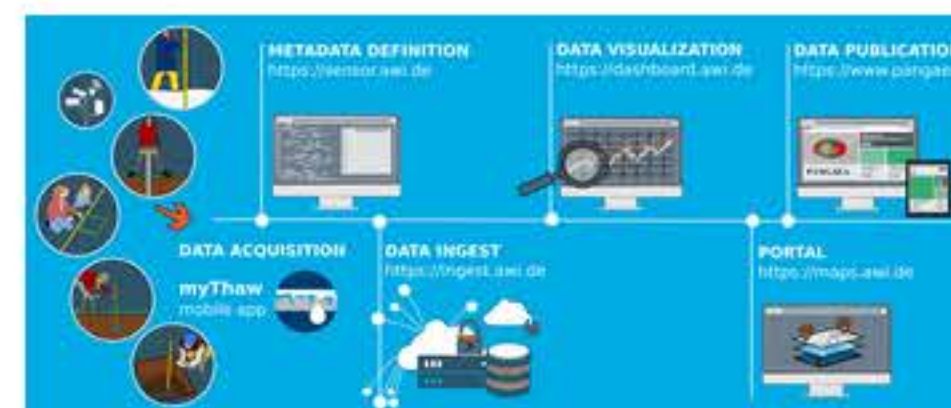
Motivation and requirements

Motivation



- Permafrost thaw is monitored in isolated locations, but not systematically
- Multi-parameter observations needed for research but not commonly available
- Arctic landscape is highly heterogeneous, and variability across spatial scales needs to be captured to understand and predict permafrost thaw
- Standardized measurements are needed for pan-Arctic integration (modeling, remote sensing)

Standardized observations and storage



- Data and metadata standards
- Data freely available

Where to find more information

T-MOSAIc Permafrost Thaw

The [website](#) of the T-MOSAIc action group contains more information on our data acquisition and synthesis efforts. The goal is to **generate high-quality records of key variables** such as snow and thaw depth.

Paper and protocol

Published in [Arctic Science](#)

How to contribute or use the data

We encourage everyone to contribute observations via the app. We are intensifying our collaboration with field stations, citizen scientists, etc. across the Arctic.

Please reach out to us if you have questions or would like to contribute.

All collected data are available via the [online portal](#).

