Laura Lindzey

QIceRadar

Applied Physics Laboratory
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Making Ice Penetrating Radar More Accessible:

A tool for finding, downloading and visualizing georeferenced radargrams within the QGIS ecosystem
Funded by NSF-CSSI (Cyberinfrastructure for Sustained Scientific Innovation), Award #2209726

Objective: Make it easy to use radar data!
- Enable discovery of where available radargrams exist
  (includes where data has been collected and which transects are publicly available)
- Visualizer for radargrams, including interpreted surface and basal horizons
- Straightforward geolocation of features in radar data

Timeline
- 2022 Fall: Data ingestion / indexing
- 2023 Winter/Spring: Plugin Development
- 2023 Summer: Release to beta testers
- 2024 SCAR Open Science Conference:
  Public release
- 2025 June: End of project

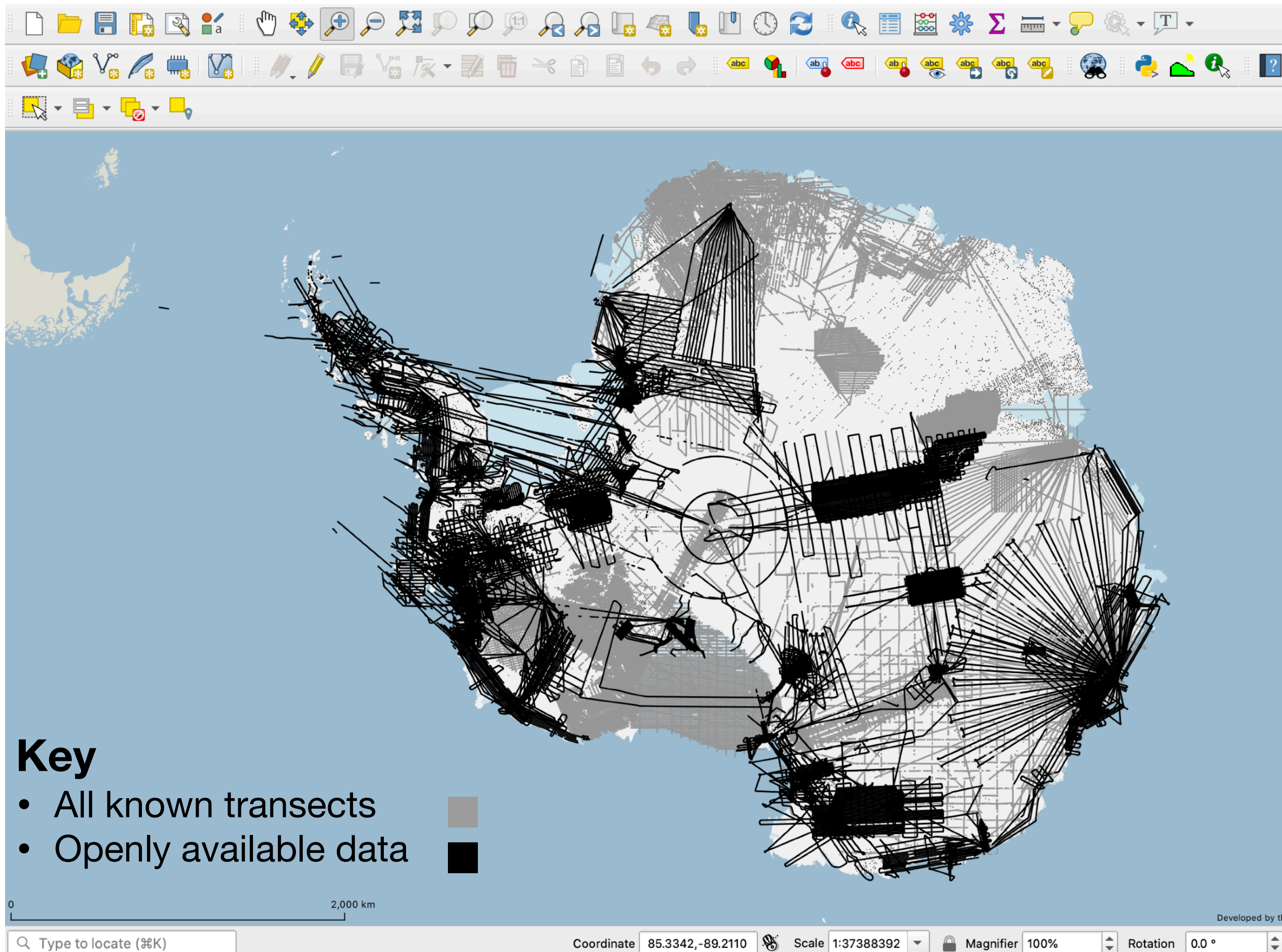**PI:** Laura Lindzey lindzey@uw.edu

Advisory Committee:
- 13 members (across 12 institutions)
- Includes both end-users and representatives from QGreenland, Quantarctica, and OpenPolarRadar

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Planned QGIS Index Layer

Will be hosted at NSF data center

Includes metadata for all known radar transects

Key
- All known transects
- Openly available data

Planned QGIS Plugins

1. **Data download**
   Click transect, automated download from datacenter (e.g. NSIDC, BAS) when available
   contact lindzey@uw.edu to have your data included!

2. **Radargram visualizer**
   Click transect, radargram visualizer pops up with cursor linking map coordinates and radar trace