



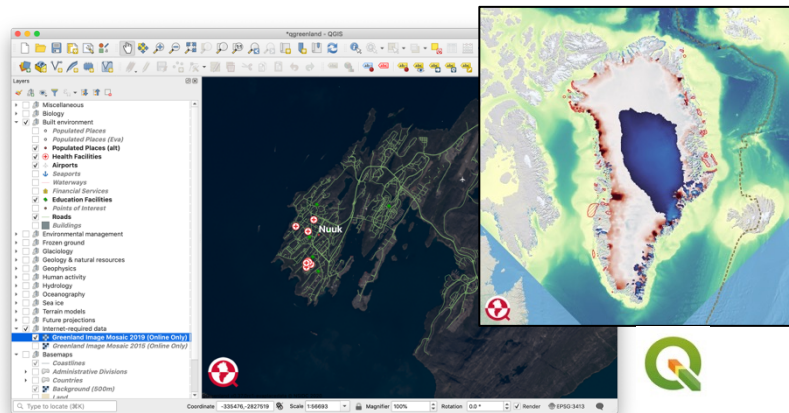
QGreenland: An open source GIS tool for discovery, teaching, and reuse

QGreenland, an NSF EarthCube-funded project, removes barriers to exploration and teaching with Greenland-related geospatial data.

QGreenland provides an **all-in-one download package** of interdisciplinary data about Greenland, which a user can explore by opening a single project file within QGIS, a free GIS platform. Data provides local detail to ice-sheet-wide information.

QGreenland supports: research planning, cross-disciplinary data discovery, creation of production quality maps and figures, teaching GIS skills, integrating independent Greenland data, offline in-field data viewing, advanced data analysis, and more.

v1.0 is available now and ready to explore!



QGreenland is a **community tool**

Phase 1 is complete. QGreenland phase 2 development will emphasize code workflow improvements so that users can more easily:

- **Enhance** QGreenland with data and/or code contributions
- **Leverage** QGreenland code for your own GIS project

Phase 2 includes developing more complete data contribution guidelines and tutorials for users to:

- **Create** QGreenland compatible data
- **Ensure** their data is easy to use and interpret

User surveys, interviews, and ongoing Editorial Board input will also inform phase 2 as we move towards QGreenland v2.0.

QGreenland is an **education tool**



Install the tools

Download QGIS & QGreenland

Learn about Greenland

Explore ice, ocean, biology, communities, and much more

Learn about GIS

Learn how to navigate GIS software and data

Explore data analysis across data layers

Perform advanced analysis with built-in and add-on functions

Create custom visuals

Easily share work and findings through custom maps and flexible visualization options.

We are: developing teaching material to bring QGreenland into the classroom. Our first curriculum material will be designed for undergraduate students, with high school and graduate student resources to follow.

QGreenland is a **research tool**



Greenland-focused research begins

Download QGIS & QGreenland
*Add personal data/layers

Planning field work

Plan field travel and scout on-ice location

Arriving in Greenland

Use offline in the field for data and analysis

Advanced science research

Use QGIS along with Python/R/etc. to analyze new data

Research sharing

Leverage QGreenland layers to create meaningful figures for presentations and publications

We are: providing beginner and intermediate workshops (workshops so far have been FULL), and custom training (e.g., 2021 summer REU program). Future tutorial material build-out will continue to make QGreenland easy-to-use, even for those who are brand new to GIS software.

QGreenland.org

github.com/nsidc/qgreenland · qgreenland.info@gmail.com



Project Collaborations

De Nationale Geologiske Undersøgelser for Danmark og Grønland
Dansmarks Tekniske Universitet
Dansmarks Meteorologiske Institut
Norsk Polarinstitut

Arctic Data Committee
International Arctic Science Committee
WWF-Danmark
Pinngortitaleriffik
U.S. Polar Geospatial Center

Greenland Ice Sheet Ocean Science Network
N.S.F. Polar Computing RCN
Asiaq
Isaaffik
Greenland Ecosystem Monitoring

CIRES Team

Twila Moon, Project Lead
Lynne Harden, Education Lead
Matt Fisher, Developer
Trey Stafford, Developer