



QGreenland-Net: Enhancing Greenland Geospatial Data Accessibility and Discovery

Kalaallit Nunaanni Sumiiffinni Paasissutissanik Atoruminarsaaneq Paasisassarsiornermilu Pitsanngorsaaneq

Twila Moon¹, Matthew Jones², Trey Stafford¹, Robyn Marowitz¹, Rushiraj Nenuji², Ian Nesbitt², Angie Garcia²

¹ National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder

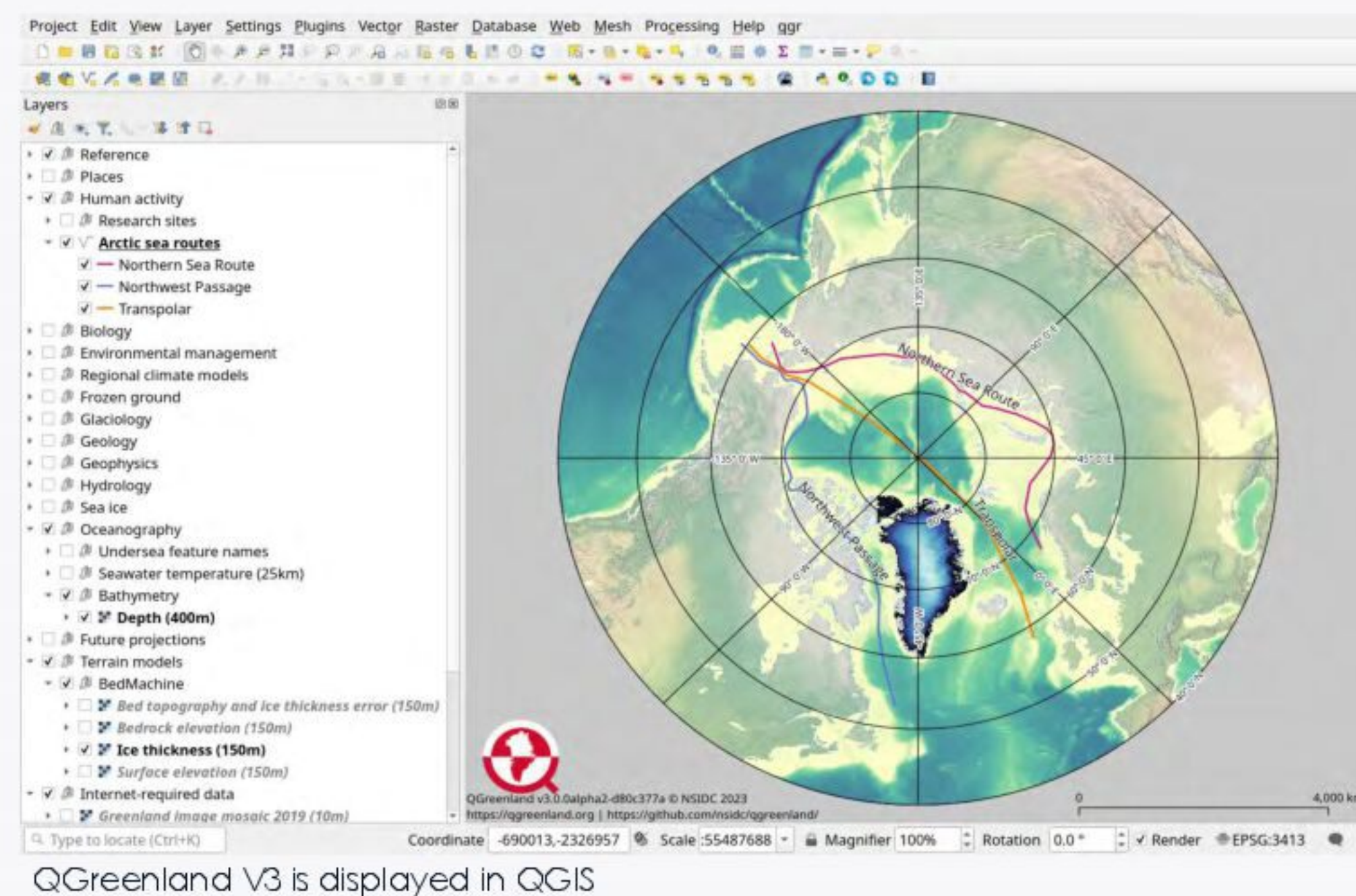
² National Center for Ecological Analysis and Synthesis (NCEAS), University of California Santa Barbara (UCSB) / DataONE

1 WHAT IS QGREENLAND-NET?

- Builds upon **QGreenland** data package
- Expands geospatial data access/findability via an Open Geospatial Data Cloud (OGDC) and **QGreenland Data Portal**
- A **collaborative effort** with the Arctic Data Center (ADC) and engages with an international community of experts and users

QGREENLAND-NET SUNAANA?

- QGreenland** paasissutissanik tunngaveqarpoq
- Open Geospatial Data Cloud (OGDC) aamma **QGreenland Paasissutissanut Isaaffik** atorlugu sumiiffinni paasissuissarsinnaaneq/paasisassarsiorinnaaneq alillerneqarpoq
- Arctic Data Center (ADC) **suleqatigalugu anguniagaqarneq** nunarsuarmilu inuiaqatigiinni immikkut ilisimasalinnik atuuisunillu pimoorullugu peqataatitsisoq



QGreenland V3 is displayed in QGIS

2 QGREENLAND

QGreenland is a free mapping tool that brings together Greenland data in one easy-to-use package. It works with **QGIS**, a popular open-source mapping program.

- With a geoscience focus, it includes **interdisciplinary data** such as ice, land, flora, fauna, people, and ocean
- Accessible offline** - essential for remote fieldwork without internet
- Downloaded nearly 24,500 times
- Used by **educators, students, researchers, and the public**

QGreenland tassaavoq nunap assiliornermi sakkoq Kalaallit Nunaanni paasissutissaanik atoruminarsakkanik katersugaasivik. **QGIS**, programmi akeqanngitsaq, kikkunni tamanit atorneqarajuttoq, nunap assiliornermi atorneqarsinnaasq

- Nunarsuup sananeqaataanut atafillugu ilisimatusarneq ukkataralugu, ilisimasat tapiritsillugit, sorlu siku, nuna, naasut, uumasut, inuit imarlut pillugit paasissutissaasivik.
- Internetimut atassuteqanngikkaluarluni pissarsiarineqarsinnaaneq** - asimi sulilluni internetimut atassuteqararani tamanna pingaaruteqarpoq
- 24,500-riarluni aaneqarsinapput
- Ilinniartitsinut, ilinniartunit, ilisimatusartunit inunnillu amerlanemit** atorneqarsinapput

3 ENHANCING ACCESS TO GREENLAND GEOSPATIAL DATA

Open Geospatial Data Cloud (OGDC):

- Supports creating **FAIR** (Findable, Accessible, Interoperable, and Reusable) geospatial data
- Workflows transform raw data into analysis-ready formats, saving researchers valuable time

DataONE federation:

- A federation **connecting multiple repositories** together
- QGreenland-Net team working on adding new repositories and **expanding data portal content**

QGreenland Data Portal:

- A **dedicated discovery interface** for finding and accessing Greenland datasets
- Enhanced search, filtering, and data preview capabilities.
- Currently 43,000+ datasets

KALAALLIT NUNAANNI SUMIIFFINNI PAASISSUTISSANIK ATORUMINARSAANEQ

Open Geospatial Data Cloud (OGDC):

- Sumiiffinni paasissutissat **NASA** (Nassarineqarsinnaassuseq, Atoruminassuseq, Suleqatigiuminassuseq Atoqqinneqarsinnaassuseq) tunngavigalugu pilernissaannik tapersersuisoq
- Paasissutissat missoqqissaarneqarsinnaanissaat anguniarlugu suleriaatsit atorneqartarput, tamannalu ilisimatusartunut piffissamik atuilluarnermik kinguneqartarpoq.

Peqatigiiffik DataONE:

- Peqatigiiffik **paasissutissaasivippassuarnik ataqatigiissitsisoq**
- QGreenland-Netimi suleqatigilut paasissutissaasivili nutaat ilanngunniarlugit **paasissutissanik isaaffiup imarisaanik amerisaanarlutik** suliniuteqartut

QGreenland Paasissutissanut Isaaffik:

- Kalaallit Nunaanni paasissutissarsiornermi paasissutissanillu pissarsiarnermi **atuuisinnaanngoritsisoq**
- Paasissutissanik ujarlerner, immikkoortiterinermi paasissutissanillu siunut takuneqarsinnaasunik pitsanngorsaaneq
- Maannakkut paasissutissat ataatsimoortut 43,000+



4 COMMUNITY ENGAGEMENT

Engagement with experts:

QGreenland-Net is advised by an international **Coordinating Board** and **Cyberinfrastructure Advising Group** that ensures the alignment of development priorities with user needs and a shared cyberinfrastructure vision across the circumpolar North.

Educational materials:

Diverse materials ranging from beginner tutorials to curriculum for high school to university teachers.

Open source and transparent development:

Scan the code below to see our workflow, contribute, and stay updated on OGDC technical development.



INUIAQATIGIINNIK PEQATAATITSINEQ

Immikkut ilisimasalinnik suleqateqarneq:

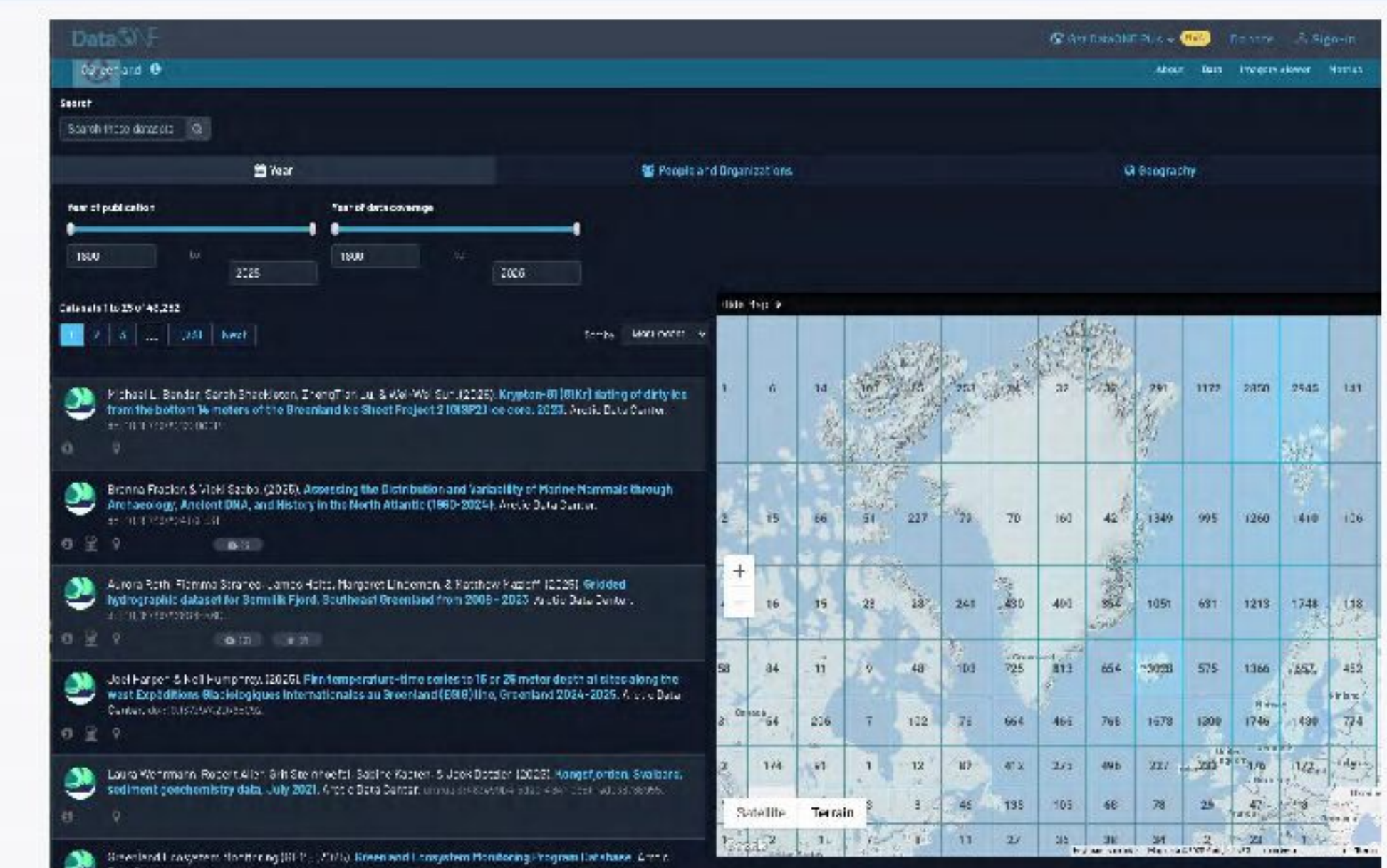
QGreenland-Net nunat tamalaat **Ataqatigiissaarnermik Siunnersoqatigiinnit Internetikkullu ataveqaasersuutit siunnersuotatigiinnit** siunnersorneqarpoq, taakkulu Issittumi Avannarlermi Internetikkut ataveqaasersuutit akimorlugit atuusut pisariaqartitaannik ataatsimullu anguniagaasatut takorluukkanik ineriartortitsinermi pingaarnersuineri naleqqussamissaq isumannaarpaat.

Ilinniartitsinermi atukkat:

Atortut assigilngitsut soorlu aallarterlaanut ilinniartitsisutit ilinniarnertuunngorniarfimmil ilinniartitsinermi najoqaqtassanut universititnilu ilinniartitsisunut.

Kikkunni tamanik atorneqarsinnaasunik ammasumillu ineriartortitsineq:

Suleriaaserput takuniarlugu peqataanissallu siunertarlugu OGDC-llu teknikkut ineriartorneranumut malinnaanissat pillugu ataani kode ilisutissaaq skanneruk.



QGreenland Data Portal

5 NEXT STEPS

- QGreenland:** Continue to develop a curriculum that uses QGreenland and disseminate the data package so that researchers, educators, and others can use QGreenland to support their work and goals.
- OGDC:** Continue development on the OGDC tools for data transformations to make geospatial Greenland-focused data more FAIR.
- QGreenland Data Portal:** Enhance portal functionality via search, filter, and data preview updates, and support use by the community.
- Community/engagement:** Continue developing useful tutorials, long-term sustainability plans, and host workshops.

SULIASSAT TULLIUTTUT

- QGreenland:** Qgreenland iluaqutigalugu ilinniartitsinermi najoqaqtassanik ineriartortitsinerup nangingneqarnissaa paasissutissallu ilisimatusartunut, ilinniartitsisunut allanullu nittarsaannissaat.
- OGDC:** Kalaallit Nunaanni summiiffinnut paasissutissat NASA tunngavigalugu pilersinneqartarnissaat tunngavigalugu OGDC-sakkunik ineriisaanerup nangingneqarnissaa.
- QGreenland Data Portal:** Isaaffiup paasisassarsionertigut, immikkoortiterinertigut paasissutissanillu nutarteriuarnertigut atoruminarnerulemissaa inuiaqatigiinnillu atorneqarneranumut kaammattuineq.
- Inuiaqatigiit/peqataatitsineq:** Iltisarsuutit iluaqutaasunik ineriartortitsinerup, siunissaq ungasinneru-soq isigalugu pijuartitsinermi pilersaarusiomerup isumasioqatigiissitsisarnerrillu nanginnissaat.

QGREENLAND.ORG



Sign up for newsletter



ACKNOWLEDGMENTS

We thank the many partners and collaborators who have helped to develop and disseminate QGreenland, including our international Coordinating Board.

November 2025

