
QGreenland Documentation

Release v0.2.0

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Mar 03, 2022

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WHAT IS QGREENLAND CUSTOM?

QGreenland is a free and open-source Greenland-focused GIS environment for data analysis and viewing, powered by QGIS. QGreenland is delivered in two ways:

1. **QGreenland Core:** a large Zip package containing a core set of data curated to serve the majority of users. This documentation page is about QGreenland Core. QGreenland Core has its own [documentation](#).
2. **QGreenland Custom (beta):** a QGIS plugin for downloading a custom set of data, including data which is not part of the QGreenland Core zip package (for example, due to filesize constraints). QGreenland Custom enables you to access only the QGreenland layers you are interested in.

Visit the [QGreenland website](#)

CITING QGREENLAND

We request that QGreenland be cited or acknowledged when publishing a QGreenland-made image or map.

2.1 Citation

Moon, T., M. Fisher, L. Harden, & T. Stafford (2021). QGreenland[software]. Available from <https://qgreenland.org>. <https://doi.org/10.5281/zenodo.4558266>.

2.2 Acknowledgement

We acknowledge the National Snow and Ice Data Center QGreenland package.

CONTRIBUTOR HOW-TO GUIDES

3.1 How to develop QGreenland Custom

3.1.1 Install the plugin to QGIS for development

Install the plugin by symlinking this repository to your plugins directory, e.g.:

```
ln -s $PWD ~/.local/share/QGIS/QGIS3/profiles/default/python/plugins/.
```

Then in the QGIS “Manage and Install Plugins...” dialog’s “Installed” tab, ensure the “QGreenland Custom” plugin is enabled (checked).

3.1.2 Development loop

Before starting, instal the Plugin Reloader plugin. The development feedback loop looks like this:

- Make code changes
- Use Plugin Reloader to reload the plugin
- Test

3.1.3 Automated testing

If you want to write automated unit or regression tests, the `scripts/run-env-linux.sh` script should be used to run your tests in the QGIS environment without running QGIS itself.

This should be handled by the Makefile target `make test`.

3.2 How to release a new version of QGreenland Custom

3.2.1 Increment the version

Use `bumpversion` to bump the specified part of the version:

```
$ bumpversion --part={major|minor|patch}
```

Versions should be in one of the following forms:

- `vX.Y.ZalphaN`: An alpha pre-release, e.g. `v1.2.3beta2`

- vX.Y.ZbetaN: A beta pre-release, e.g. v1.2.3alpha2
- vX.Y.ZrcN: A release candidate, e.g. v1.2.3rc3.
- vX.Y.Z: A final release, e.g. v1.2.3.

Warning: When using `bumpversion build`, ensure you've already used `bumpversion prerelease`. Running `bumpversion build` from a final release version number can result in an incorrect patch number, e.g. v1.2.304.

3.2.2 Tag the release with the new version

```
git tag {vX.Y.Z}
```

3.2.3 Build a package zip

Using the tag from the previous step, build a package:

```
make package VERSION={vX.Y.Z} # Outputs a zip
```

3.2.4 Upload the zip to QGIS Plugin Repository

- Visit <https://plugins.qgis.org/plugins> in your browser. Make an account if needed.
- Click the “Plugins” tab, then “Upload a Plugin”.
- Upload the zip package from the previous step.
- Wait for approval.

3.3 How to edit documentation

3.3.1 Local development and preview

To preview docs locally, create a local Python environment and install dependencies, then make the docs.

```
virtualenv env
. env/bin/activate
pip install -r dev-requirements.txt
cd help
make html
```

3.3.2 Structure

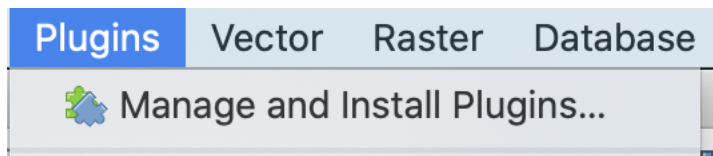
We follow a conceptual framework called [Diátaxis](#). For a primer, watch [this video](#).

INSTALL AND USE QGREENLAND CUSTOM

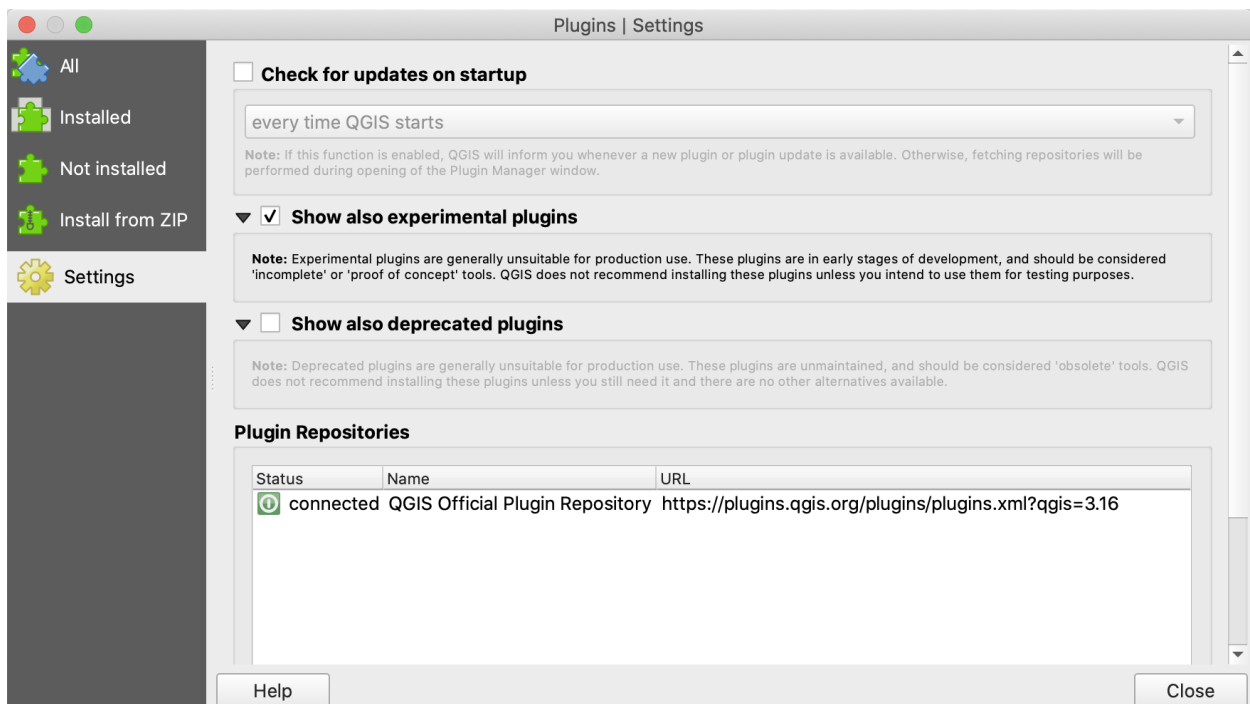
QGreenland Custom is a QGIS plugin for downloading a custom set of data, including data which is not part of the QGreenland Core zip package. This how-to guide walks through how to install the plugin and how to use its basic functions.

4.1 Installing QGreenland Custom

To get started with this guide, access the **Plugin** tab in the top *Menu Bar**, and select **Manage and Install Plugins**.



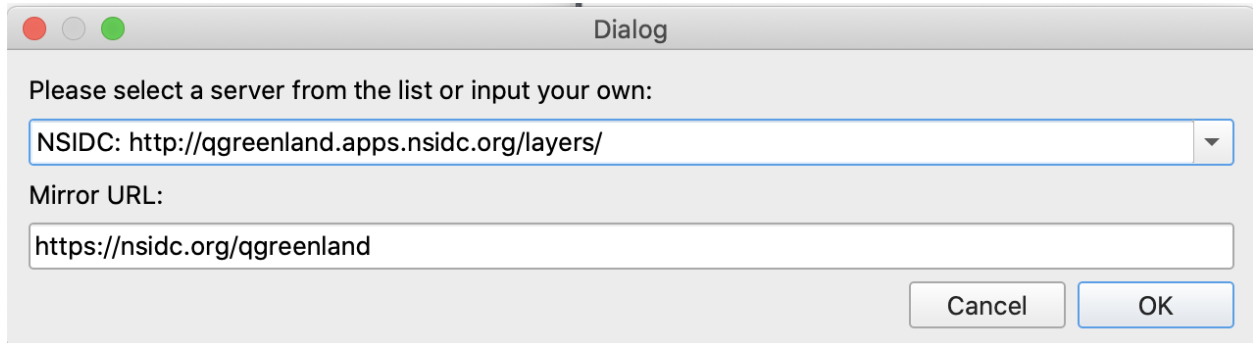
This will open the **Plugin** pop-up window. First, click the **Settings** tab and select the check box labeled **Show also experimental plugins** so that QGreenland Custom will be included.



Navigate to the **All** tab in the plugin window, and search for QGreenland Custom. Click **Install plugin** and close.

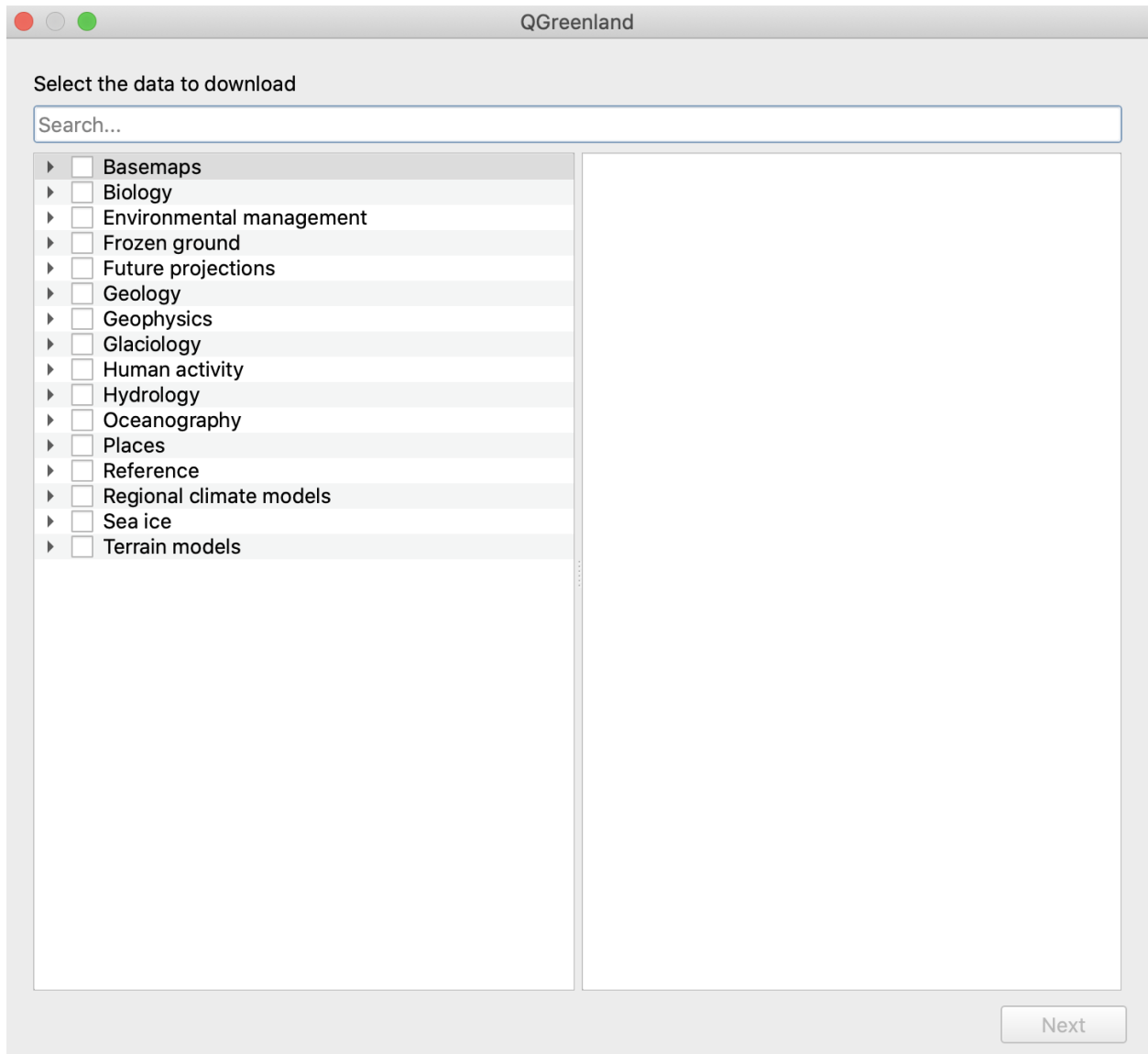
4.2 Configuring QGreenland Custom

To use QGreenland Custom, first navigate to **Web -> QGreenland -> Configure the Server**. Leave the default options and press OK.

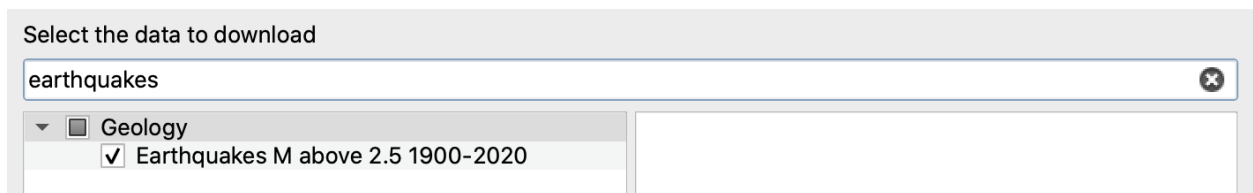


4.3 Searching for data layers

Now that you have the plugin installed and configured, you can begin downloading and using data in QGreenland Custom. To access the plugin, find the QGreenland logo in the **Menu Bar**. Clicking on this icon will open the plugin. Initially, you should see a list of layer directories.

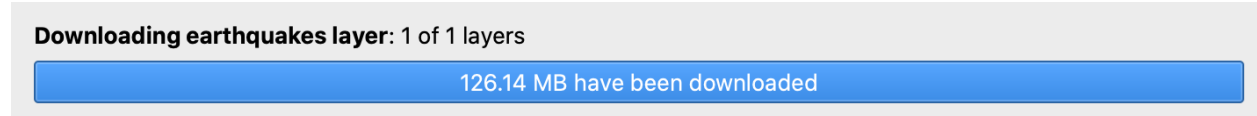


Using the top search bar, type in a layer or keyword, such as ‘towns’ or ‘earthquakes’. Once you have located a layer of interest, click the checkbox and click **Next** at the bottom of the window.



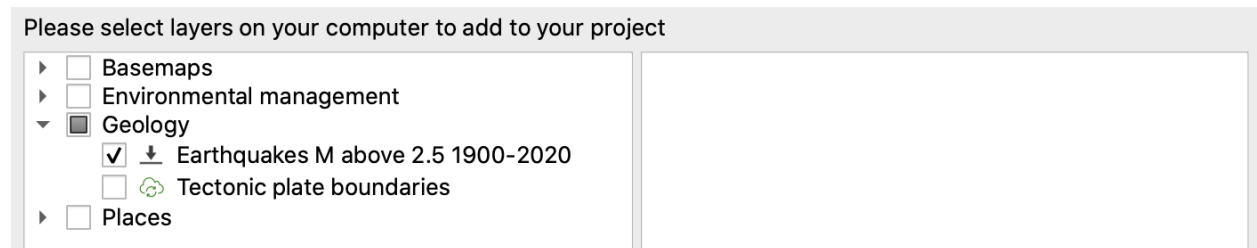
4.4 Downloading the data

Next, you will need to choose a storage location to download the data. Select your location using the three dot icon, and once you have chosen a location, click the **Download** button. When the download is finished, you will see a blue bar at the bottom of the window showing your downloaded layer. Click **Next**.



Note: Note that the beta version of the QGreenland Custom plugin currently functions separately from the QGreenland Core package in regards to storing and adding data, which means that the QGreenland Custom plugin does not access and read the QGreenland Core downloaded data. To add a data layer to a new project, that layer needs to be downloaded within QGreenland Custom to be accessible within it.

Next, you will be asked to select which downloaded layers you would like to add to your QGIS project. This will be a full list of downloaded layers, so there may be more than one layer listed if you have used the plugin more than once or selected to download multiple layers at once.



Find your layer of interest and click the checkbox, then click **Add to project**. Once the layer has been added, you should see the new layer in the QGIS **Layer Panel** and in the **Map View**. Click **Close** to exit the plugin.