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Geodisy

A New Visual Way to Discover Canadian Research Data

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Overview

Geodisy (geo.frdr.ca) is an open source discovery tool that allows users to find open data from Canadian repositories in a visual way

- Search results are driven by an interactive map
- Contains data that is geospatial or simply associated with a location
- Provides a map-based search for Canada's Federated Research Data Repository (FRDR)
- All components are open source and code is freely available for others to adapt

Why is it useful?

Data can be difficult to find! When searching for data about a particular place, keywords can be hit or miss. A text search for a forest in Northern BC might look something like this:

((British Columbia OR BC OR B.C.) N2 (north*)) OR (Alaska N2 south*) OR (Yukon N2 south*)
OR (Tatshenshini-Alsek ADJ2 park) OR (Glacier Bay ADJ2 (park or preserve))
OR (Kluane ADJ2 (park OR reserve)) OR (Atlin ADJ2 (park OR recreation area) OR ...

Geodisy Interface

Search... Search Q

Start Over Bounding Box > -147.348633 54.41893 -124.277344 63.43086 ✕

Limit your search

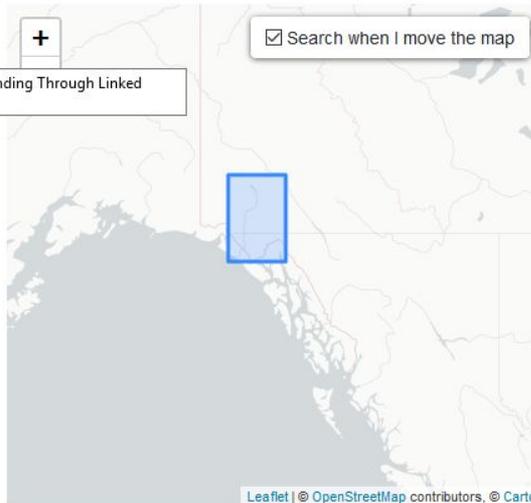
« Previous | 1 - 10 of 457 | Next »

Sort by relevance ▾

10 per page ▾

- Institution >
- Author >
- Subject >
- Place >
- Access >
- Data type >

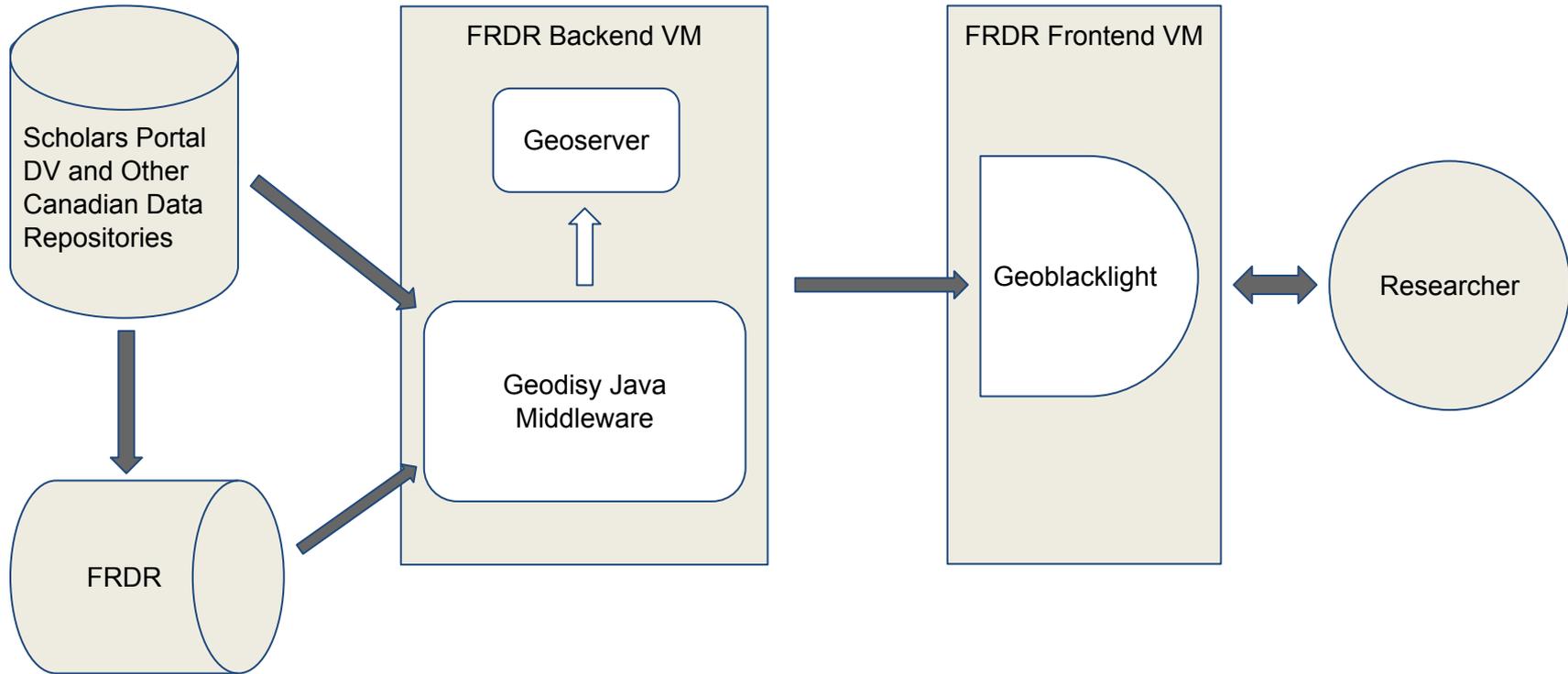
1. [The Kwāday Dān Ts'ınchi Discovery: Expan...](#) 🔒
2. [NWT ice](#) 🔒
3. [2013 British Columbia General Election Exi...](#) 🔒
4. [Forum Research Political Poll - Provincial I...](#) 🔒
5. [Pan-Arctic Tracking of Beluga Whales \(PAT...](#) 🔒
6. [The organic carbon flux to Arctic margin s...](#) 🔒
7. [Ecological monitoring of polar bears and s...](#) 🔒
8. [External compilation of data from the Nati...](#) 🔒
9. [Canada's Three Oceans \(C3O\)](#) 🔒
10. [Starting the clock on the CARMA Networ...](#) 🔒



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Geodisy Software Architecture

Geodisy Software Architecture



Bounding Boxes in Geodisy

Geodisy requires bounding boxes for discovery.

All datasets that go through the Geodisy pipeline either have:

- Bounding box coordinates entered into the metadata by the depositor
- Bounding box that is programmatically generated from:
 - Geospatial files in the dataset
 - Place name metadata

Bounding Boxes in Geodisy

- Each geospatial file or set of coordinates (even if there are multiple in a single dataset) will get its own GeoBlacklight record
- Datasets that do not include coordinates, geospatial filetypes, or geographic coverage metadata are not eligible for inclusion

Geospatial Metadata

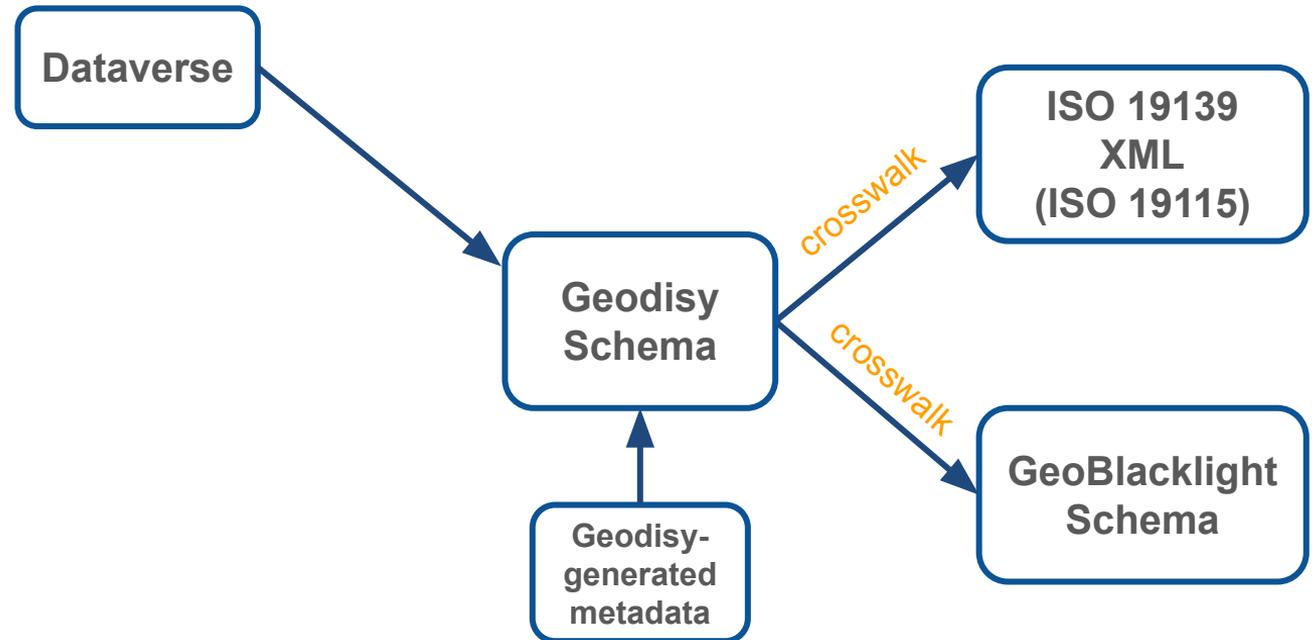
Geodisy first attempts to analyze geospatial files using [GDAL](#). If unsuccessful, it utilizes bounding box and place name metadata entered by the depositor. In Dataverse:

Geospatial Metadata 

Geographic Coverage	Country / Nation	<input type="text" value="Select..."/>	State / Province	<input type="text"/>	
	City	<input type="text"/>	Other	<input type="text"/>	
	Geographic Unit	<input type="text"/>			
	Geographic Bounding Box	West Longitude	<input type="text"/>	East Longitude	<input type="text"/>
North Latitude		<input type="text"/>	South Latitude	<input type="text"/>	

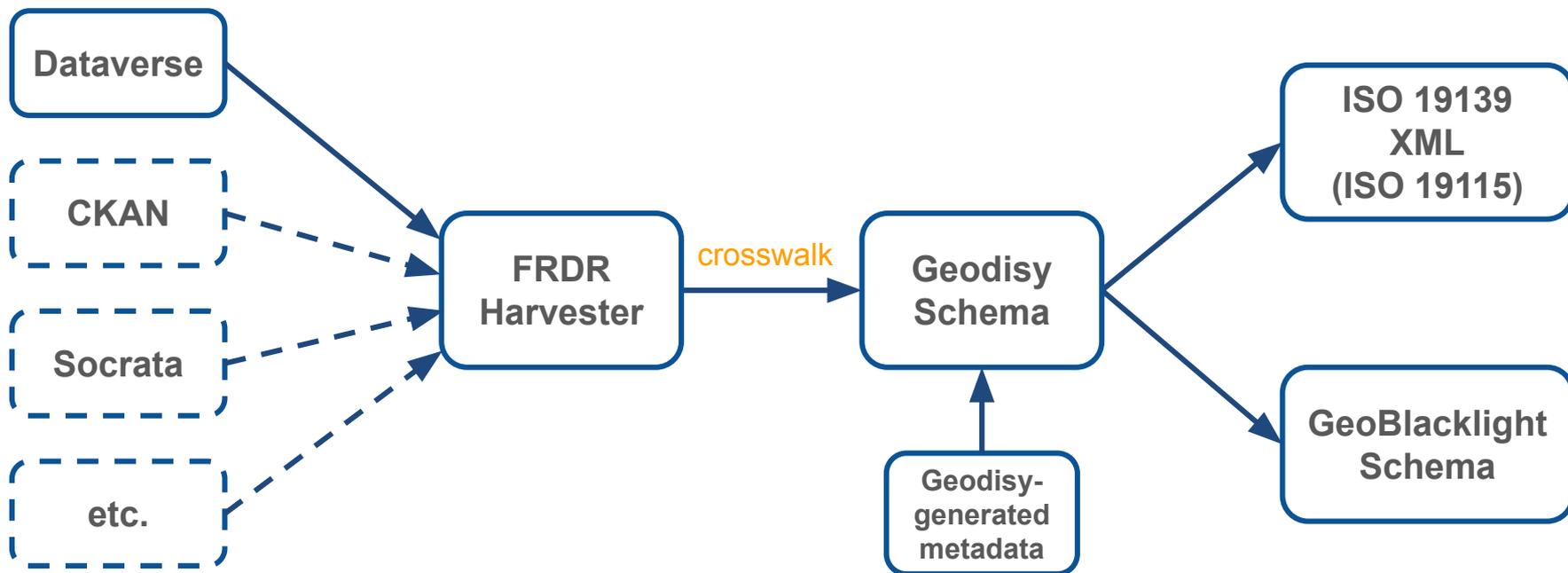
Geodisy Metadata Process

Phase 1 (current)



Geodisy Metadata Process

Plan for Phase 2



FRDR and Geodisy

FRDR

Feedback Log In Help About EN

FRDR DFDR
FEDERATED RESEARCH DATA REPOSITORY DÉPÔT FÉDÉRÉ DE DONNÉES DE RECHERCHE

Find and Share **Canadian** Research Data

Search

Advanced search

Map Search (beta)

Deposit Data

Find Data

Search FRDR to find research datasets originating from researchers affiliated with Canadian institutions. Data deposited to other repositories across Canada can also be found by searching in FRDR. View the growing [list of collaborating repositories](#).

Deposit Data

Any researcher affiliated with a Canadian institution can deposit data into FRDR. The platform can efficiently ingest datasets of any size, and preservation processing is done automatically. Data professionals from the Portage Network and institutions across Canada work with researchers to

Geodisy Search Portal Page



[FAQ](#) [About](#) [Feedback](#)

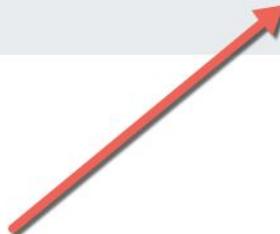
Important: Geodisy provides map search functionality to supplement the FRDR discovery service. Currently in beta, the map search only indexes selected datasets from Scholars Portal Dataverse with location metadata and/or geospatial files. Geodisy is only available in English at this time. To search all datasets, return to frdr-dfdr.ca.

Explore Canadian research data

Search by keywords...

Search 🔍

Search by location



Geodisy Search Results Page

Search... Search 🔍

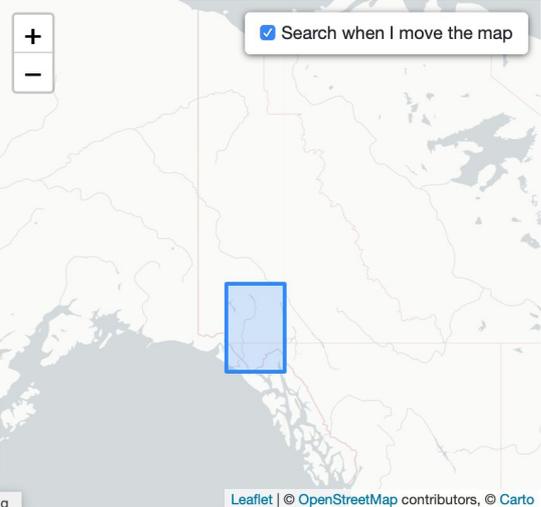
Start Over Bounding Box > -154.807977 53.748711 -117.190789 69.900118 ✕

Limit your search << Previous | 1 - 10 of 808 | Next >> Sort by relevance ▾ 10 per page ▾

- Institution >
- Author >
- Publisher >
- Subject >
- Place >
- Collection >
- Year >
- Access >
- Data type >
- Format >

1. [Spatial distribution of icings \(aufeis\) in n...](#) 📄 🔒
2. [Spatial distribution of icings \(aufeis\) in ...](#) 🔒
3. [Territorial Evolution, 1670-2001 \(073 of ...](#) 🔒
4. [Territorial Evolution, 1670-2001 \(120 of ...](#) 🔒
5. [Territorial Evolution, 1670-2001 \(070 of ...](#) 🔒
6. [Territorial Evolution, 1670-2001 \(123 of ...](#) 🔒
7. [Territorial Evolution, 1670-2001 \(063 of ...](#) 🔒
8. [Documenting traditional knowledge in r...](#) 🔒
9. [The Kwäday Dän Ts'inchi Discovery: Ex...](#) 🔒
10. [Yeendoo Nanh Nakl](#)

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Map showing search results location. Includes a bounding box and a search overlay: Search when I move the map. Map source: Leaflet | © OpenStreetMap contributors, © Carto.

Geodisy Record Page

Multivariate maps of forest attributes for management units in Canada's boreal forest (01 of 56)

Author(s): Lochhead, Kyle, LeMay, Valerie, Bull, Gary, Schwab, Olaf, and Halperin, James

Description: A spatially explicit "wall to wall" forest inventory of percent crown closure (CC), average height (Ht), average age (Age), and commercial species percentages derived using a multi-source inventory approach from Lochhead et al. (2017). This process involved compiling a suite of spatial layers including Landsat TM/ETM+ imagery, interpolated climate variables, topographic variables and other remote sensing products to be used as predictors and Canada's National Forest Inventory photo plot [Read More](#)

Publisher: Scholars Portal Dataverse

Collection: Multivariate maps of forest attributes for management units in Canada's boreal forest

Place(s): [Canada](#) and [Canada's boreal forest](#)

Subject(s): [Earth and Environmental Sciences](#)

Held by: [Scholars Portal Dataverse](#)

Data source: <https://doi.org/10.5683/SP2/KITZQK>

 [Web services](#)

 [ISO 19139 Metadata](#)

Downloads

[Original GeoTIFF](#)

Data Relations

Linked Records

 [Multivariate maps of forest attributes for management units in Canada's boreal forest \(02 of 56\)](#)

 [Multivariate maps of forest attributes for](#)

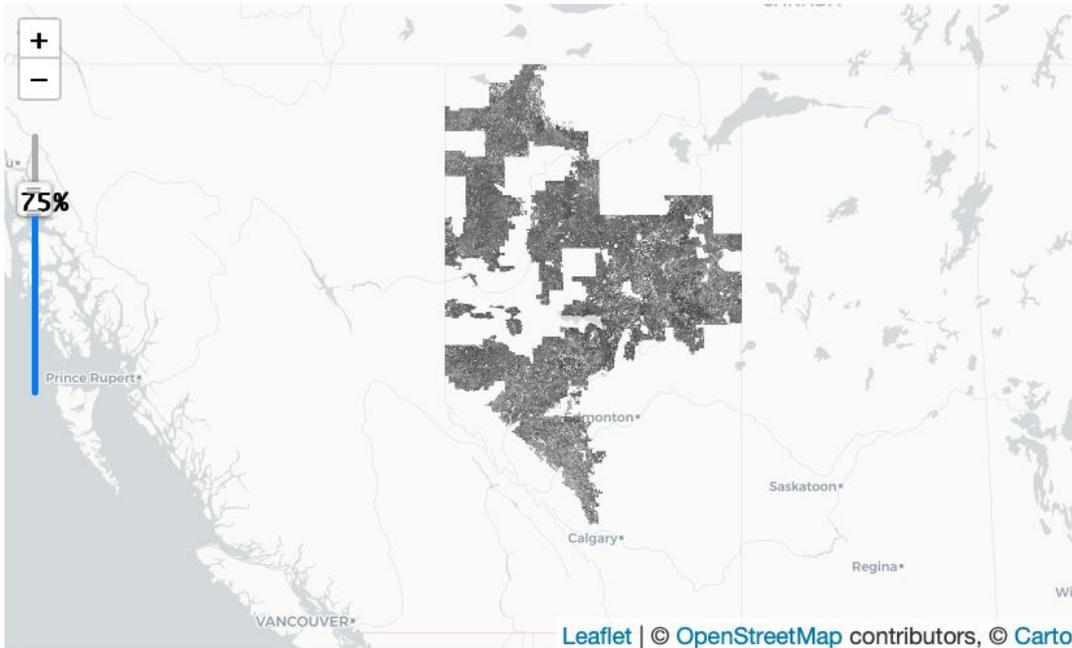


Geodisy Geospatial Preview

Held by: [Scholars Portal Dataverse](#)

Data source: <https://doi.org/10.5683/SP2/KITZQK>

Web Map Service (WMS)



(02 of 56)

 Multivariate maps of forest attributes for management units in Canada's boreal forest (03 of 56)

 Multivariate maps of forest attributes for management units in Canada's boreal forest (04 of 56)

[Browse all 55 records...](#)

Live Demo

- Access from <https://geo.frdr-dfdr.ca/> or <https://www.frdr-dfdr.ca/repo/>

Next Steps

- Back-end integration of Geodisy with the FRDR metadata harvester
- French translation of user interface
- Data from more repositories made available for discovery

Acknowledgments

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NDRIO

New Digital
Research Infrastructure
Organization

NOIRN

Nouvelle organisation
d'infrastructure de
recherche numérique

Thanks to our partners



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Questions?

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GitHub: <https://github.com/ubc-library/geodisy>