

DIGITAL MAPPING TECHNIQUES 2024

The following was presented at DMT'24
May 13 - 16, 2024

The contents of this document are provisional

See Presentations and Proceedings
from the DMT Meetings (1997-2024)

<http://ngmdb.usgs.gov/info/dmt/>

Data, decorum, and DOIs

Ian Orland

Wisconsin Geological and Natural History Survey

DMT 2024

How to cite the cartographic product and the GIS database for a geologic map?

Cite the original publication for use of either product.

How to title a GIS database if the map upon which it's based was previously published?

“GIS Data for the [Map Title]”

Data, decorum, and DOIs

Ian Orland

Wisconsin Geological and Natural History Survey

DMT 2024

Credit to GIS and
cartography staff

Library science,
cataloging

Authorship
responsibilities

DOI, digital
infrastructure

Bonnie Steward, Digital Production Assistant


D. Sibley, Web Developer

Pete Schoephoester, Asst. Director

Liz Ceperley, Editor

WGNHS staff

Location Clear



Counties

- Statewide **185**
- Dane **94**
- Sauk **40**
- Waukesha **40**
- Iowa **36**
- Milwaukee **36**
- Walworth **36**
- Bayfield **35**

1 2 3 ... 10

Tags

- Bedrock Geology **249**
- Groundwater **237**
- Surficial Geology **146**
- Rocks and Minerals **121**
- Soils **105**
- Precambrian Bedrock **93**
- Surface Water **73**
- Metallic Minerals **70**

1 2 3

Resource Types

- Report **585**
- Map **324**
- GIS Data **75**
- Data **36**

810 publications found Order by: Best Match

Bedrock Geology of Jefferson County, Wisconsin

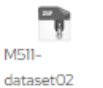
Located in southeast Wisconsin, Jefferson County is almost entirely blanketed by sediments that were delivered or shaped by the ice sheet that covered this area during the last ice age. New mapping interprets the distribution of the bedrock surface that is buried beneath those glacial sediments as interpreted by three drill cores, over 13,000 well...



Bedrock Geology of Jefferson County, Wisconsin
 Stewart, E.K.;
 2024
 Map: 38.75 in x 32.5 in, scale 1:100,000



GIS Data for the Bedrock Geology of Jefferson County, Wisconsin [dataset 1]
 Stewart, E.K.;
 2024
 GIS Data: GeMS file geodatabase, geopackage, shapefiles, metadata



Bedrock Elevation Raster for the Bedrock Geology of Jefferson County, Wisconsin [dataset 2]
 Stewart, E.K.;
 2024
 GIS Data: File geodatabase, metadata



Geochemical Data for the Bedrock Geology of Jefferson County, Wisconsin [dataset 3]
 Stewart, E.K.;
 2024
 Data: Excel spreadsheet



Supplemental Report on the Bedrock Geology of Jefferson County, Wisconsin [supplement]
 Stewart, E.K.;
 2024
 Report: 5 p.

Geologic Map of the Highland West and Highland East 7.5-Minute Quadrangles, Grant and Iowa Counties, Wisconsin

The geologic map of the Highland West and Highland East 7.5-minute quadrangles includes

WGNHS
Publication Catalog
 CKAN data management system
wgnhs.wisc.edu/catalog

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M511

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Stewart, E.K.;

2024

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M511-
dataset01

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M511-
dataset02

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M511-
dataset03

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M511-supp

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2024

Report: 5 p.

Publication

Author(s)

Publication date

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[in-text reference]
Metadata:
release date
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contributor
version
Separate DOI?

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GIS Data for the Bedrock Geology of Jefferson County, Wisconsin [dataset 1]

[Download](#)
37.10 MB

From the dataset abstract

Located in southeast Wisconsin, Jefferson County is almost entirely blanketed by sediments that were delivered or shaped by the ice sheet that covered this area during the last ice age. New mapping interprets the distribution of the bedrock surface that is buried beneath those glacial sediments as interpreted by three drill cores, over 13,000 well construction reports, examination of well cuttings, and 34 geochemical profiles of boreholes. This mapping will support parallel efforts to characterize how the bedrock affects groundwater quality. Includes map, 5-page report, geochemical data, raster of bedrock elevation surface, and GIS data in the geologic map schema (GeMS) format.

Source: [Bedrock Geology of Jefferson County, Wisconsin](#)

Resources

[Bedrock Geology of Jefferson County, Wisconsin](#)

[GIS Data for the Bedrock Geology of Jefferson County, Wisconsin \[dataset 1\]](#)

[Bedrock Elevation Raster for the Bedrock Geology of Jefferson County, Wisconsin \[dataset 2\]](#)

[Geochemical Data for the Bedrock Geology of Jefferson County, Wisconsin \[dataset 3\]](#)

[Supplemental Report on the Bedrock Geology of Jefferson County, Wisconsin \[supplement\]](#)

Additional Information

**Contributor, to be added
Version, added as needed**

Author	Stewart, E.K.;
Publication Year	2024
Series number	M511-dataset01
Resource Type	GIS Data
Physical Description	GeMS file geodatabase, geopackage, shapefiles, metadata
Geographic Area	Jefferson
Tags	Bedrock Geology

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DOI: Digital Object Identifier

“Persistent identifier”

Permanent URL

<https://doi.org/10.5555/YRFU1371>

DOI resolver

prefix

suffix

DOI: Digital Object Identifier

“Persistent identifier”

Permanent URL

Minting agencies charge a small fee, **archive metadata**



CrossRef *academic journal standard*

DataCite *dataset standard*

CrossRef academic journal
[contributor]
[ORCID]

author
editor
chair
reviewer
review-assistant
stats-reviewer
reviewer-external
reader
translator

*“We intend to ... expand
our list of supported
contributor roles in a
future update.”*

DataCite dataset
[creator]
[contributor]
[ORCID]

Author
ContactPerson
DataCollector
DataCurator
DataManager
Distributor
Editor
HostingInstitution
Producer

ProjectLeader
ProjectManager
ProjectMember
RegistrationAgency
RegistrationAuthority
RelatedPerson
Researcher
ResearchGroup
RightsHolder

Sponsor
Supervisor
WorkPackageLeader
Other

Joint Statement on Research Data

CrossRef, DataCite, STM

Nov. 28th, 2023; <https://doi.org/10.5438/cstd-5t12>

“
...

recognising the need for an amplified focus on data citation

...

twelve best practices in research data sharing

...

8. Repositories and publishers connect articles and datasets through persistent identifier connections in the metadata and reference lists...”

12 BEST PRACTICES for RESEARCH DATA Sharing

Intended for **STAKEHOLDERS** from across the spectrum of scholarly communications:

- Researchers
- Data repositories
- Publishers
- Funders
- Research organizations
- Policy-making institutions

- Use trustworthy data repositories when publishing results**
Deposit research data in repositories that assign persistent identifiers — ideally DOIs.
- Utilize persistent identifiers to cite data research**
Provide attribution by citing datasets in reference sections using persistent identifiers.
- Enable FAIR practices for data sharing and citations**
Foster sharing of research outputs with high-quality, complete metadata.
- Establish clear data policies for journals**
Detail the way data is to be shared alongside a published article.
- Set instructions for data citations**
Offer guidance for authors to include data citations with persistent identifiers in the references.
- Include data citations in article metadata**
Include data citations with persistent identifiers (DOIs if possible) in the metadata registered with Crossref.
- Integrate data availability statements in published articles**
Include both human and machine-readable data availability statements in published articles where appropriate.
- Connect articles and datasets through persistent identifier connections**
Establish persistent identifier connections in metadata and reference lists.
- Incentivize data sharing through guidance and tracking**
Offer guidance on open science practices, track policy compliance and incentivize researchers to share, cite and link research data.
- Collaborate across stakeholders to align on FAIR research data policies**
Work together to align FAIR data policies and guidelines.
- Collectively develop tools, processes and incentives**
Build systems and products that work together to enable easy, clear, and efficient data sharing.
- Develop research assessment practices including data sharing and citation**
Consider data sharing and citation in reward and recognition systems for research assessment.

Content drawn from the Joint Statement on Research Data created by:

DataCite Crossref STM Advancing trusted research

Learn more

stm-assoc.org/researchdata