

Boots on the Ground to Bytes in the Archive: A Cyberinfrastructure Case Study

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Barrow Area Information Database (BAID)

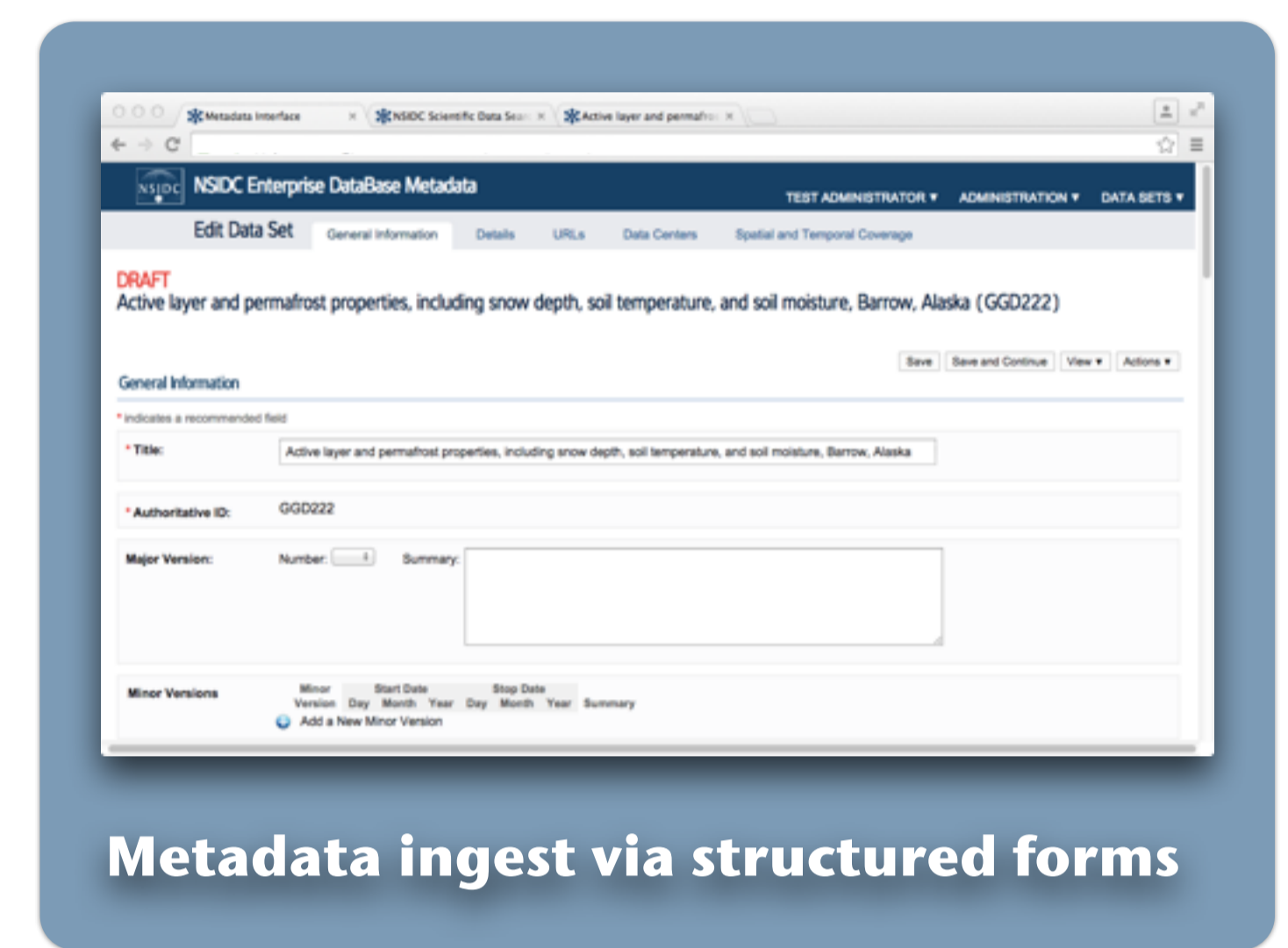
BAID comprises a suite of interactive tools and map interfaces used by researchers, field logistics personnel and program managers to gain insights into the field research activities on the North Slope of Alaska. BAID provides a history of Arctic field research plots, identifies current research sites and instrument locations, and sets field research within the context of the surrounding indigenous communities and traditional land use.

National Snow and Ice Data Center (NSIDC)

NSIDC provides data management services for a variety of cryospheric data. Services include tools for data discovery, access, and use.

Metadata are curated by a staff of technical writers, and are stored in a relational database. The database contents are indexed to support a search interface, and are also delivered via OpenSearch and OAI-PMH service endpoints.

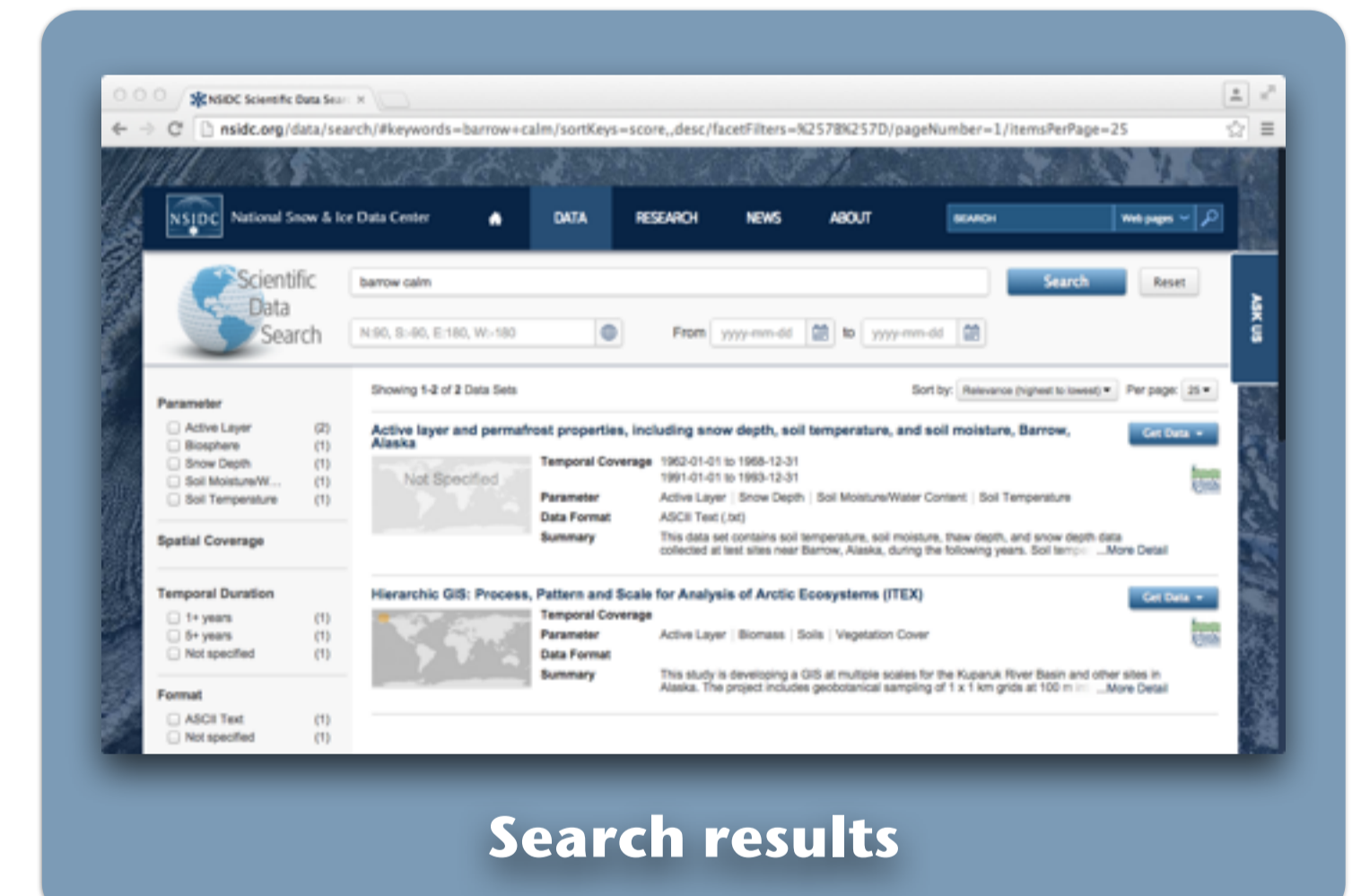
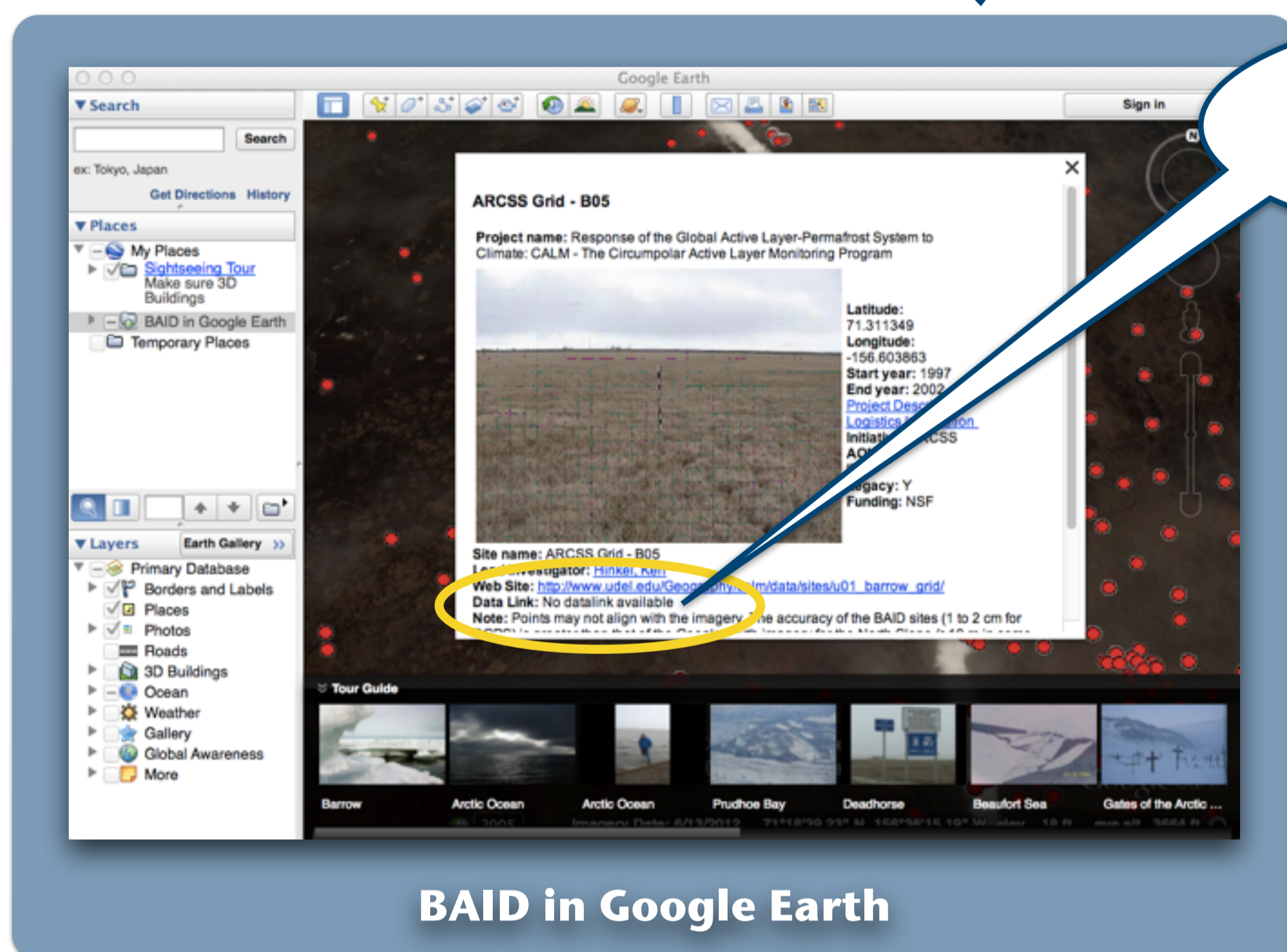
Goal: Provide end-to-end connection between field research context and the associated research data products.
Follow the money from funding source to project results.



Contributions from other logistics sources (e.g., ARLSS)

NSIDC HTTP Services

No datalink available



Data archives, including the National Snow and Ice Data Center, ultimately distribute the data resulting from efforts at field research sites. However, in the NSIDC example, no common index term exists in the harvestable metadata feeds that would allow BAID to identify data products connected with specific research sites.

Solution:

- Modify data curation workflow to include funding agency information (e.g., award number(s)) that should be associated with a data set.
- Update metadata record export formats to include associated funding agency and relevant award number(s).

BAID relies on permanent URLs to data products.

- Solution: NSIDC already provides DOI reference as well as a stable catalog page URL.

BAID requires capability for searching by a specific index term (award number) as well as via geospatial filters.

Solution:

- Investigate OGC services for metadata record distribution.
- Add award number and funding agency as search facets for OpenSearch responses.

RDA connections include, but are not limited to:

- Long Tail of Research Data Interest Group: Cyberinfrastructure necessary to curate and expose "Long Tail" data.
- Brokering Interest Group: The investigation of infrastructure enhancements necessary to connect data generators, data archives, and data users.
- Service Management Interest Group: Evaluation of service architectures.

References

- <http://prodgis02.utep.edu/baidutep/>
- <https://catalog.data.gov/dataset/arctic-field-research-projects-arctic-research-logistics-support-service-arlss-database>
- <http://nsidc.org/data/search>

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