



science for a changing world

Understanding Data Impact at the U.S. Geological Survey

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U.S. Geological Survey

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U.S. Department of the Interior
U.S. Geological Survey





U.S. Geological Survey

Science for a Changing World

The USGS serves the Nation by providing reliable scientific information to describe and understand the Earth; minimizing loss of life and property from natural disasters; managing water, biological, energy, and mineral resources; and enhancing and protecting our quality of life.



CSS SAS Science Data Management Team

Mission: **Optimize** and **share** USGS data management practices and workflows to ensure that **USGS scientific data are fully described, preserved, and publicly accessible**

Building Communities



Community for Data
Integration (CDI)
usgs.gov/cdi

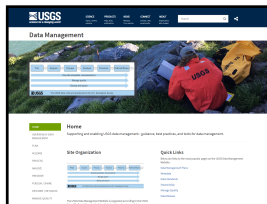


USGS Powell Center
powellcenter.usgs.gov



ScienceBase Data Release Network

Promoting Best Practices

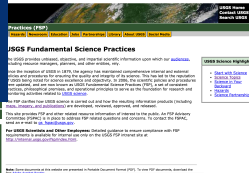


USGS Data
Management
Website

[https://www.usgs.gov/
products/data-and-
tools/data-
management](https://www.usgs.gov/products/data-and-tools/data-management)

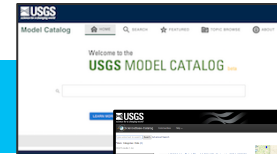
science for a changing world

Leadership in Policy



Maintaining Enterprise Tools

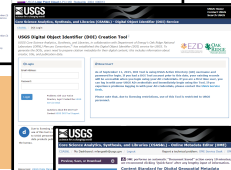
Model Catalog
data.usgs.gov/modelcatalog



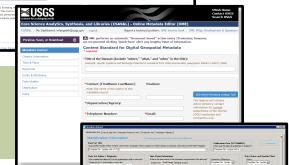
ScienceBase
sciencebase.gov



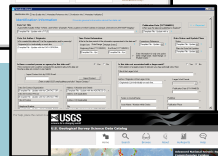
DOI Creation Tool
www1.usgs.gov/csas/doi



Online Metadata Editor
www1.usgs.gov/csas/ome



Metadata Wizard
<https://code.usgs.gov/usgs/fort-pymdwizard>



Science Data Catalog
data.usgs.gov



USGS data management policies

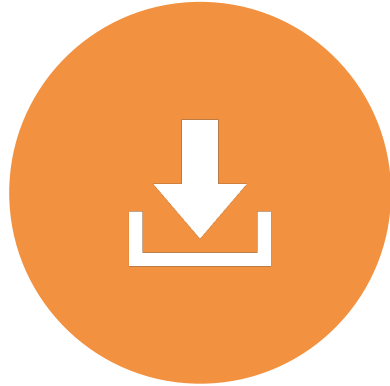
Scientific Data Management
Foundation (*requires DMPs*)

Metadata for Scientific Data, Software,
and Other Information Products

Review and Approval of Scientific Data
for Release

Preservation Requirements for Digital
Scientific Data

Understanding Data Impact

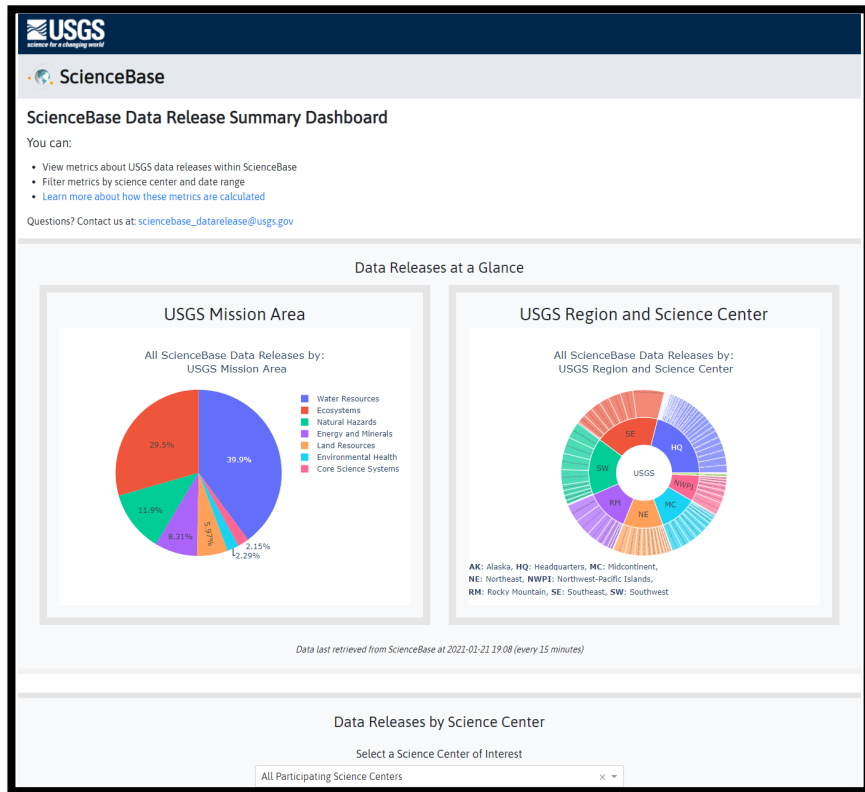


DATA ACCESS – VIEWS &
DOWNLOADS



DATA USE – CITATION
TRACKING

ScienceBase Data Release Summary Dashboard



Data Release Details for California Water Science Center

Filter by Date Range

11/24/2014 → 10/06/2021

Number of Data Releases: 175 [Learn more about how these metrics are calculated.](#)

Title	Originator / Author	Publication Date	Digital Object Identifier	Landing Page Visits	Total File Downloads
Photographs and video clips of Clear Lake Hitch	Frederick V Feyrer	2018-10-09	https://doi.org/10.5066/P90BNFLL	11,605	8,460
Classification of Chloride-to-Sulfate Mass Ratio for U.S. Groundwater With Respect to the Potential to Promote Galvanic Corrosion of Lead, 1991-2015; Water Well Data and Characteristic Values for States	Kenneth Belitz, Bryant C Jurgens, Tyler D Johnson	2016-04-06	https://doi.org/10.5066/F7MC8X40	11,435	6,371
Airborne thermal infrared imagery and longitudinal stream temperature profiles, Hat Creek, California, August 2018	Mousa Diabat, Marina F Marcelli, Erick R Burns, Shawn Wheelock, Andrea Slotke, Christian Torgersen, Jennifer A Curtis	2021-03-31	https://doi.org/10.5066/P9DMJYT7	11,393	4,941
Estimates of subsurface tile drainage extent for 12 Midwest states, 2012	Michael E. Wicczorek, Naomi Nakagaki	2016-04-25	https://doi.org/10.5066/F7W37TDP	9,964	4,573
Historical groundwater and produced water chemistry data compiled for the San Ardo Oil Field and vicinity, Monterey County, central California	Loren F Metzger	2021-03-31	https://doi.org/10.5066/P9W6KHK2	7,797	4,521
Groundwater-quality data and ancillary data for selected wells in the San Joaquin Valley, California, 1900-2015	Jeffrey A Hansen, Miranda S Fram, Bryant C Jurgens	2018-06-06	https://doi.org/10.5066/F7319T3K	3,242	4,485
Location and population served by domestic wells in California	Tyler Johnson	2015-08-21	https://doi.org/10.5066/F70R9MFW	10,981	3,332
Hydraulic Mine Pits of California	James Orlando	2016-04-26	https://doi.org/10.5066/F7J8QMD	82,496	2,838
Bathymetry, Stage-Area, and Stage-Volume Tables for the San Antonio Reservoir, California, 2018	Mathieu D Marineau, Scott A Wright, Joan V Lopez	2020-01-06	https://doi.org/10.5066/P9KC9DU8	3,323	2,523
Abundance and Distribution of Fishes in the Northern Sacramento-San Joaquin Delta, California, 2017-2018 (ver. 1.1, December 2019)	Dennis A Steinke, Matthew J Young, Frederick V Feyrer	2019-08-19	https://doi.org/10.5066/P9FUQXJL	3,290	2,472

[Download Data Table \(CSV\)](#)

[Filter with more options in ScienceBase](#)

Data Citation Tracking

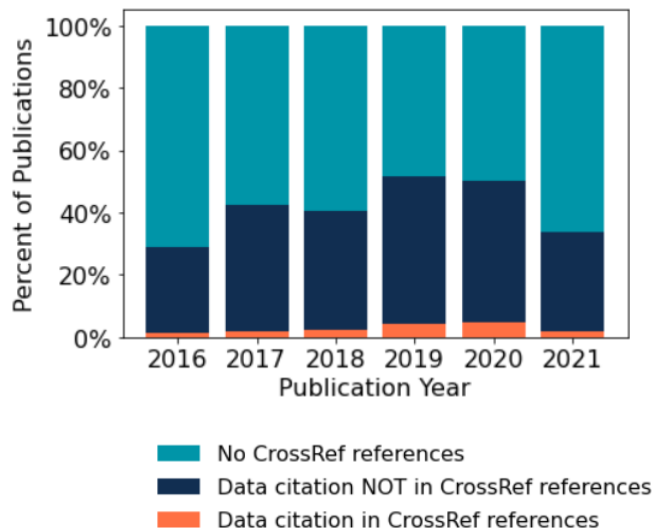


- **Mine** xDD (GeoDeepDive) weekly for USGS DOI prefix: 10.5066
- **Store** pub DOIs as related identifiers in DataCite DOIs
- **Display** citations in the USGS Science Data Catalog

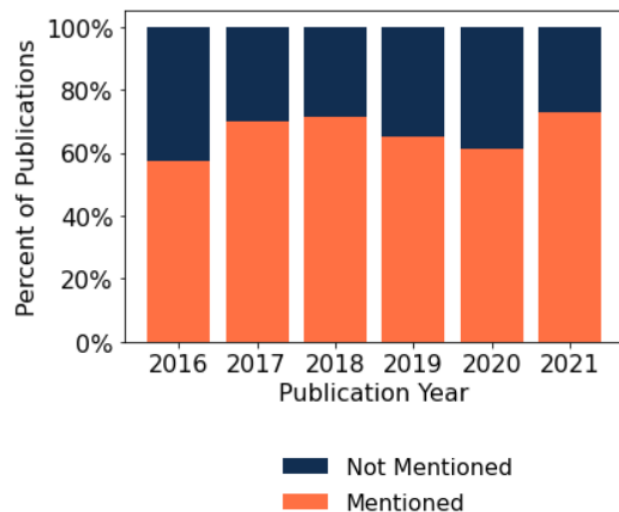
The image is a screenshot of the USGS Science Data Catalog (SDC) website. The main header shows the USGS logo and navigation links. The main content area displays a data release titled "Land Disturbance and Pygmy Rabbit Occupancy Values Associated With Oil and Gas Extraction in Southwestern Wyoming, 2012". Below the title, there is a map of Wyoming showing the study area. The release description states that pygmy rabbits are a Species of Greatest Conservation Need in Wyoming and that the data was used for analysis of oil and gas exploration impacts. The "Citations of these data" section shows four citations, each with a DOI and a "View Citation" link. A red circle highlights the "Citations of these data" section. A modal window titled "This USGS data release has been cited in:" is open, showing a table of citations with columns for DOI and View Citation. The table lists four citations with their respective DOIs. The modal window also includes a "Formatting Style" dropdown set to "APA Citation Format" and a "CLOSE" button.

Are Data Being Cited or Mentioned?

Data DOIs Listed in CrossRef References



Data DOIs Mentioned in Publication Full Text



Next Steps

- Align data access counts with COUNTER Code of Practice for Research Data
- Explore Scholix for tracking formal citations
- Continue to educate our researchers & publishing staff

USGS
science for a changing world

SCIENCE
Topics, centers,
missions

PRODUCTS
Maps, data,
publications

NEWS
Releases,
Press & reporter

CONNECT
Contact, chat,
social media

ABOUT
Organization,
jobs, budget

Search

Data Management

USGS Data Lifecycle

The USGS Data Lifecycle produced by the U.S. Geological Survey

Plan → Acquire → Process → Analyze → Preserve → Publish/Share

Describe (metadata, documentation)

Manage quality

Backup and secure

HOME

Home

Supporting and enabling USGS data management - guidance, best practices, and tools for data management.

Site Organization

The USGS Data Management Website is organized according to the USGS Scientific Data Lifecycle Model, which describes the stages of data management and how data flow through a research project from start to finish.

Quick Links

Below are links to the most popular pages on the USGS Data Management Website.

- Data Management Plans
- Metadata
- Data Standards
- Stewardship
- Manage Quality
- Data Release

<https://www.usgs.gov/datamanagement>



Thank you!

Questions & Discussion

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- Grace Donovan – gdonovan@usgs.gov