



ESS-DIVE for PIs and Data Managers



Welcome!

Audience Introductions

Presenter



Madison Burrus

Computer Systems Engineer

Objectives



1. ESS-DIVE Feature Overview for:
 - a. Data Archival *(5 mins)*
 - b. Data Management Setup *(10 mins)*
 - c. Reporting progress to DOE & Questionnaire *(10 mins)*
2. Preview of upcoming features *(< 5 mins)*
3. To-Do List for PIs *(< 5 mins)*

We want your
feedback!



Q&A welcome at
anytime!

Key Takeaway: Learn what is currently possible on ESS-DIVE and become aware of features we are working on!

Minimum DMP Needs

ESS projects need to:

1. **Archive project data** on ESS-DIVE
 - a. Project data previously published should be mirrored on ESS-DIVE
2. **Report data publication** progress to DOE

ESS-DIVE is here to help ESS projects meet these needs and support project science

ESS-DIVE Features

1. Metadata & Data **Submission**
2. **Large Data** Support
3. **External links** for specialized and previously published data
4. **Teams & Project Data Managers**
5. **Share** datasets with individuals and teams
6. **Data Portals** to showcase data to the public
7. Publication and data metrics **reports**
8. Make ESS data FAIR with **Reporting Formats & DeepDiveAPI**

Project Data
Management Features!

Data Archival

Metadata Submission & Automated Review

Overview *

People

Overview

Title *
A brief but meaningful title for this data package.
A good title includes the topic, geographic location, dates, and scale of the data.

Example: Sapflow and Soil Moisture Raw sensor data, Jan 2016-Apr 2016, BR-Ma2: Manaus

Dates

Existing DOI and Alternate Identifiers
DOI and alternate identifiers of the data package if it has been previously published elsewhere. Alternate identifiers should be entered in the following format: *Enter as many identifiers as needed below.*

Example: <http://dx.doi.org/10.15486/NGT/XXXXXXX>

Locations

Abstract *
A concise description of the purpose and content of this data package.
A good abstract would provide users with adequate information to determine if the data are useful for their needs.

Example: Raw output from the data logger connected to 9 sapflow and 5 soil moisture sensors installed at the site. The abstract should include information on where the sensors were installed, and other installation/maintenance details. No data processing or analysis was performed.

Methods

Methods

Web Form

```

provider = {
  "identifier": {
    "@type": "PropertyValue",
    "propertyID": "ess-dive",
    "value":
      "1e6d50d3-9532-43fb-a63f-bdcb4350bf0c"
  }
}
    
```

{ REST API }

ESS-DIVE
Deep Insight for Earth Science Data

Metadata Quality Report

After running your metadata against our standard set of metadata, data, and congruency checks, we have analyzed your research data by addressing the issues below.

19
checks

Identification: 100% complete

Discovery: 67% complete

Interpretation: 100% complete

- ▶ Passed 11 checks out of 12 (informational checks not included).
- ▶ Warning for 0 checks.
- ▼ Failed 1 check. Please correct these issues.

✘ The abstract is only 75 word(s) long but 100 or more is required.

Receive **feedback** while preparing dataset metadata

Data Submission

There are three ways to upload data files to ESS-DIVE

	Upload Method	File volume	No. of files
Intuitive	Data Submission Web Form	< 10 GB	< 100
Programatic	Dataset API	10 - 500 GB	< 100
Large Data	Globus Data Transfer Service	> 500 GB	> 100

Support for Large Data Volumes

Upload: Submit data using **Globus'** cloud-based, intuitive upload interface

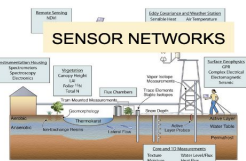
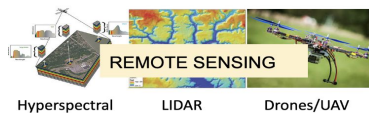
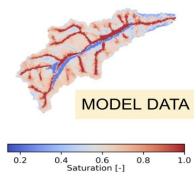
Access: Explore hierarchies and download files from ESS-DIVE's **Tier 2** landing page. Cloud-based download also supported on Globus.



Globus Data Transfer Service

> 500 GB

Come talk to us to get started!



This is the ESS-DIVE tier2 data site. Click [here](#) to go to the main ESS-DIVE data portal.

ESS-DIVE
Earth System Science Data Infrastructure

ABOUT US

Yang D; Hanston W; Hayes D; Serbin S (2022): UAS remote sensing (DJI Phantom 4 RTK platform): RGB orthomosaic, digital surface and canopy height models, plant functional type map, Seward Peninsula, Alaska, 2019. Next-Generation Ecosystem Experiments (NGEE) Arctic. doi:10.5440/1906348

Access via DOI: <http://doi.org/10.5440/1906348>
Access via ESS-DIVE: <https://data.ess-dive.lbl.gov/view/doi:10.5440/1906348>

Contents of this data directory are as follows:

- ESS-DIVE-content-list.txt - This file
- manifest-md5.txt - Manifest for the data files in this directory with checksums for each file to verify integrity
- tag-manifest-md5.txt - Manifest for the ESS-DIVE metadata files describing the dataset data in this directory with checksums for each file to verify integrity
- data/ - Dataset data files
- metadata/ - ESS-DIVE metadata files for this directory

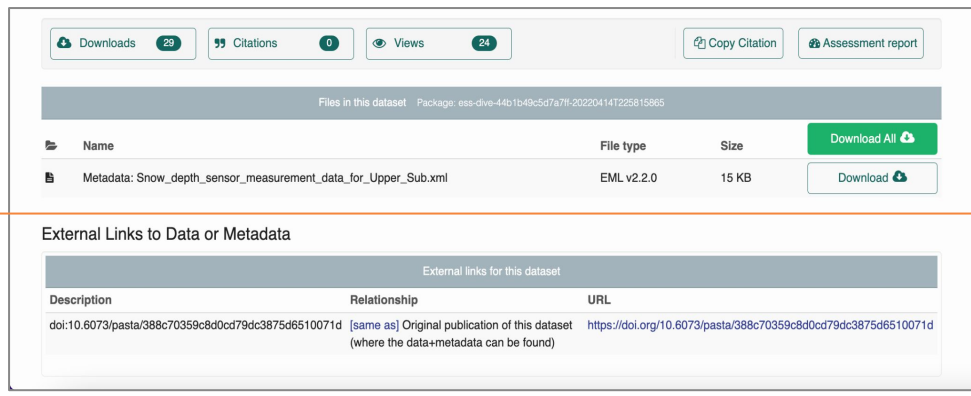
Name	Last modified	Size	Description
< Parent Directory	-	-	
data/	17 days ago	-	
metadata/	17 days ago	-	
ESS-DIVE-content-list.txt	17 days ago	870	Plain text file
manifest-md5.txt	17 days ago	54K	Plain text file
tag-manifest-md5.txt	17 days ago	178	Plain text file

BERKELEY LAB NERSC NCEAS U.S. DEPARTMENT OF ENERGY Office of Science

Tier 2 Data Storage

External Links

Store specialized data types where it makes the most sense scientifically and **connect to ESS-DIVE for search and discovery**



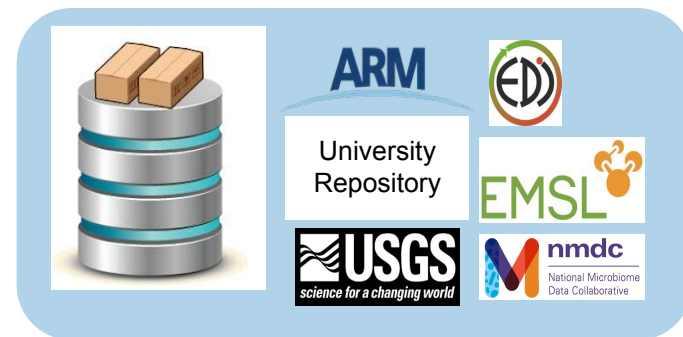
Downloads 29 Citations 0 Views 24 Copy Citation Assessment report

Files in this dataset Package: ess-dive-44b1b49c5d7a7ff-20220414T225915865

Name	File type	Size	Download All
Metadata: Snow_depth_sensor_measurement_data_for_Upper_Sub.xml	EML v2.2.0	15 KB	Download

External Links to Data or Metadata

External links for this dataset		
Description	Relationship	URL
doi:10.6073/pasta/388c70359c8d0cd79dc3875d6510071d	[same as] Original publication of this dataset (where the data+metadata can be found)	https://doi.org/10.6073/pasta/388c70359c8d0cd79dc3875d6510071d

ARM
University Repository

EDD

EMSL

USGS
science for a changing world

nmdc
National Microbiome Data Collaborative

Come talk to us to get started!

Link your ESS-DIVE datasets to:
GitHub Code, project data archives, institutional repositories

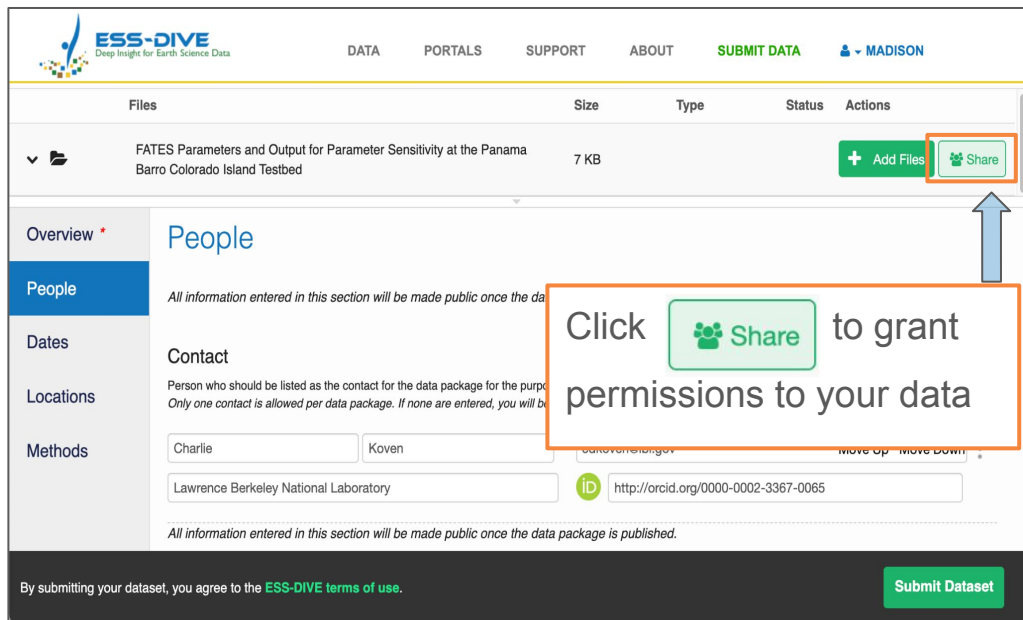



Questions?

Data Management Setup

Share Datasets

Sharing enables teams of scientists to build, curate, and publish datasets together

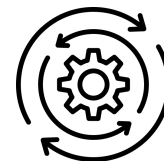


The screenshot shows the ESS-DIVE interface with a dataset titled "FATES Parameters and Output for Parameter Sensitivity at the Panama Barro Colorado Island Testbed". The "Share" button is highlighted with an orange box. A callout box with an arrow pointing to the "Share" button contains the text: "Click  to grant permissions to your data".



Submit Dataset

Data Contributor



Edit 



Collaborator

 Views



PI /
Project Manager



Share with teams and individuals

Teams

Teams are **groups of ESS-DIVE users** that have the same permission to access datasets

Teams provide an easier way to share with your project



ess-dive-data-managers (10 members)

- ★ Madison Burrus (Me)
http://orcid.org/0000-0003-2296-4698
- ★ Joan Damerow
http://orcid.org/0000-0003-2601-5043
- ★ Emily Robles
http://orcid.org/0000-0003-3720-6566
- ★ Hesham Elbashandy
http://orcid.org/0000-0002-7535-8045

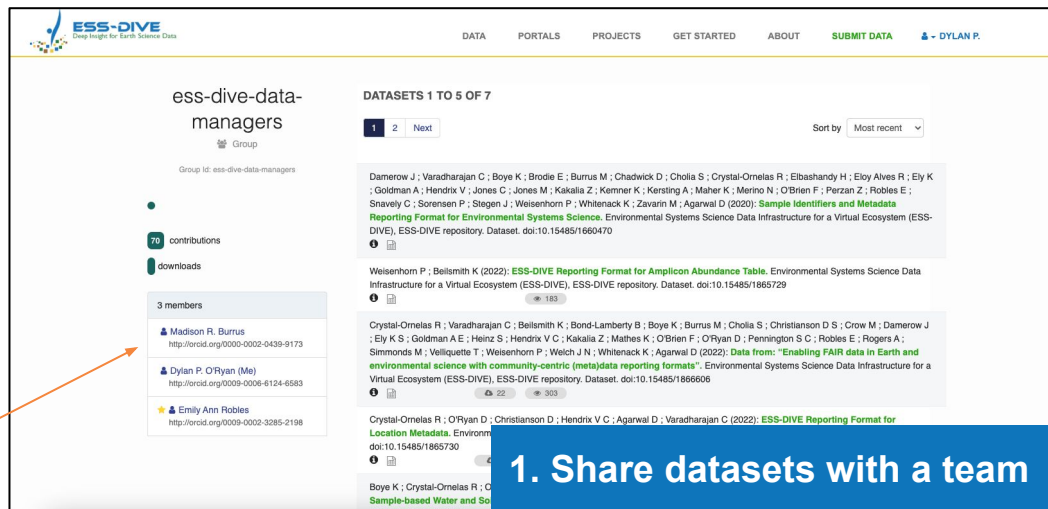
First 1 2 3 Last

Add Member - Search by username, email, or name OR enter a full username below.

Dylan +

- Dylan Projansky
- Dylan Levene
- Dylan O'Ryan
- Dylan P. O'Ryan

2. Add people to team



ess-dive-data-managers
Group

Group id: ess-dive-data-managers

70 contributions
downloads

3 members

- Madison R. Burrus
http://orcid.org/0000-0002-0439-9173
- Dylan P. O'Ryan (Me)
http://orcid.org/0009-0006-6124-6583
- ★ Emily Ann Robles
http://orcid.org/0009-0002-3285-2198

DATA PORTALS PROJECTS GET STARTED ABOUT **SUBMIT DATA** ▲ - DYLAN P.

DATASETS 1 TO 5 OF 7

1 2 Next

Sort by Most recent ▾

Damerow J.; Varadharajan C.; Boyle K.; Brodie E.; Burrus M.; Chadwick D.; Cholla S.; Crystal-Ornelas R.; Elbashandy H.; Eloy Alves R.; Ely K.; Goldman A.; Hendrix V.; Jones C.; Jones M.; Kakalia Z.; Kemner K.; Kersting A.; Maher K.; Merino N.; O'Brien F.; Parzan Z.; Robles E.; Snavely C.; Sorensen P.; Stegen J.; Weisenhorn P.; Whitenack K.; Zavarin M.; Agarwal D (2020): **Sample Identifiers and Metadata Reporting Format for Environmental Systems Science**. Environmental Systems Science Data Infrastructure for a Virtual Ecosystem (ESS-DIVE), ESS-DIVE repository, Dataset. doi:10.15485/1660470

Weisenhorn P.; Bellsmith K. (2022): **ESS-DIVE Reporting Format for Amplicon Abundance Table**. Environmental Systems Science Data Infrastructure for a Virtual Ecosystem (ESS-DIVE), ESS-DIVE repository, Dataset. doi:10.15485/1695729

Crystal-Ornelas R.; Varadharajan C.; Bellsmith K.; Bond-Lamberty B.; Boyle K.; Burrus M.; Cholla S.; Christianson D S.; Crow M.; Damerow J.; Ely K S.; Goldman A E.; Heinz S.; Hendrix V C.; Kakalia Z.; Mathes K.; O'Brien F.; O'Ryan D.; Pennington S C.; Robles E.; Rogers A.; Simmonds M.; Veliquette T.; Weisenhorn P.; Welch J N.; Whitenack K.; Agarwal D (2022): **Data from: "Enabling FAIR data in Earth and environmental science with community-centric (metadata reporting formats)"**. Environmental Systems Science Data Infrastructure for a Virtual Ecosystem (ESS-DIVE), ESS-DIVE repository, Dataset. doi:10.15485/1866606

Crystal-Ornelas R.; O'Ryan D.; Christianson D.; Hendrix V C.; Agarwal D.; Varadharajan C. (2022): **ESS-DIVE Reporting Format for Location Metadata**. Environmental Systems Science Data Infrastructure for a Virtual Ecosystem (ESS-DIVE), ESS-DIVE repository, Dataset. doi:10.15485/1865730

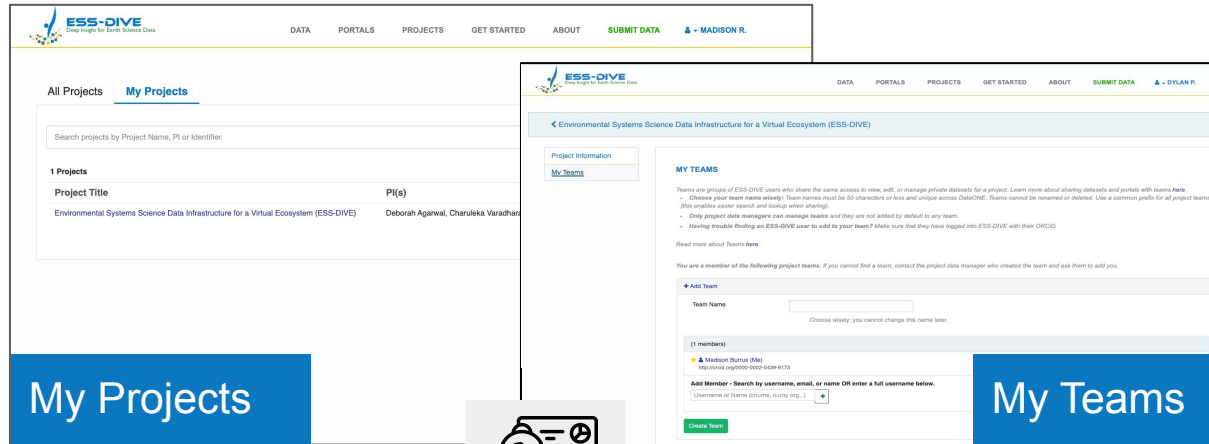
Boyle K.; Crystal-Ornelas R.; C...
Sample-based Water and So...

1. Share datasets with a team

New team members get immediate access to all project datasets!

PIs and Project Data Managers

A PI or project data manager **is a role** in ESS-DIVE that **enables someone to access** your projects and teams.



The image displays two overlapping screenshots of the ESS-DIVE web application. The left screenshot shows the 'My Projects' page, which includes a search bar and a table with columns for 'Project Title' and 'PI(s)'. The right screenshot shows the 'My Teams' page for a specific project, featuring a 'Project Information' sidebar, a 'MY TEAMS' section with instructions, and a form to 'Add Team' with a 'Team Name' field and a 'Create Team' button.



My Projects



My Teams

★ PI must approve managers



Approved project managers gain access to your project page



Create teams for your project

Benefits of Sharing Datasets

- **Visibility:** Team members can share datasets with PIs or data managers **to allow them to see private project datasets** on ESS-DIVE and report that to DOE
- **Informed curation:** Sharing gives PIs the opportunity to help curate datasets before publication according to project needs

DATASETS 6 TO 10

Prev 1 2 3 4 ... 238 Next Sort by Most recent

Forbes B (2024): **PNNL - UA ICR File Transfers**. River Corridor and Watershed Biogeochemistry SFA, ESS-DIVE repository. Dataset. ess-dive-add87b336c9116a-20240411T202938589

Bao J ; Song X ; Chen Y ; Fang Y ; Perkins W ; Powers-McCormack B ; Duan Z ; Ren H (2024): **Data and scripts associated with a manuscript on residence time distribution simulation in two 10-kilometer long river sections**. River Corridor and Watershed Biogeochemistry SFA, ESS-DIVE repository. Dataset. ess-dive-b4400a151bd3b3b-20240411T200027496

Lamour J ; Davidson K ; Ely K ; Anderson J ; Rogers A ; Serbin S (2021): **Leaf structural and chemical traits, and BNL field campaign sample details, San Lorenzo, Panama, 2020**. Next-Generation Ecosystem Experiments (NGEE) Tropics, ESS-DIVE repository. Dataset. ess-dive-2c71da14627e5e5-20240410T234246598

Lamour J ; Davidson K ; Ely K (2024): **Canopy reflectance spectroscopy, thermal images and digital photographs, San Lorenzo, Panama, 2020**. Next-Generation Ecosystem Experiments (NGEE) Tropics, ESS-DIVE repository. Dataset. ess-dive-24da4ea7b1a96f0-20240410T234111560

18
Public

6
Private



PI/
Project Manager

Any missing
information?

Data Portals



WHONDORS Worldwide Hydrobiogeochemistry Observation Network for Dynamic River Systems

Discover datasets associated with the Worldwide Hydrobiogeochemistry Observation Network for Dynamic River Systems (WHONDORS)

About Data Metrics

Search

Search these datasets

DATASETS 1 TO 18 OF 18

Sort by: Most recent

Torgeson J M, Bambalkidd T, Bates T L, Chu R, Crump B G, Danczak R E, Forbes B, Garayburu-Carusio V A, Goldman A E, Logozzo L, Maavara T, Martin E W, McKelver S A, Raymond P A, Renteria L, Toyoda J G, Stegen J C (2022): **WHONDORS Surface Water Dissolved Organic Carbon and FTICR-MS across Stream Orders in Four United States Watersheds in 2019 and 2020**. River Corridor and Watershed Biogeochemistry SFA, ESS-DIVE repository. Dataset. doi:10.15488/1891155

Garayburu Caruso V A, Goldman A E, Toyoda J G, Chu R, Renteria L, Stegen J C, Bengtson A, Torgeson J M, Will K, Ross M (2022): **FTICR-MS Data from Global Inland River Water and Sediment and from Coastal River Fresh and Saline Sediment Associated with "Functional Trait Relationships in Organic Matter are Conserved in River Corridors Across Continents"**. Early Career Research Program: Watershed Perturbation-Response Traits Derived Through Ecological Theory, ESS-DIVE repository. Dataset. doi:10.15488/1824222

Collection of Datasets

WHONDORS Worldwide Hydrobiogeochemistry Observation Network for Dynamic River Systems

https://whondors.pnnl.gov

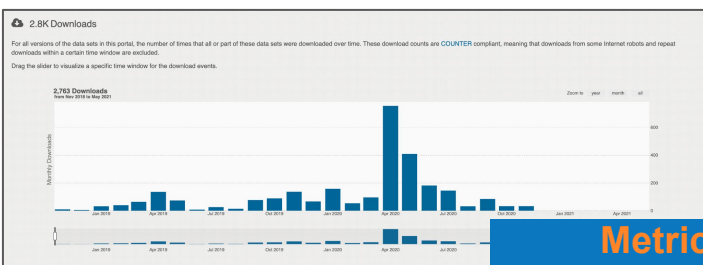
About Data Metrics

Data from the Worldwide Hydrobiogeochemistry Observation Network for Dynamic River Systems

For more information about WHONDORS, go to <https://whondors.pnnl.gov>

The Worldwide Hydrobiogeochemistry Observation Network for Dynamic River Systems (WHONDORS) is a research consortium that aims to understand coupled hydrologic, biogeochemical, and microbial function within river corridors, with an emphasis on increasing accessibility of resources and knowledge from about the research life cycle. WHONDORS seeks to cultivate a global community around understanding these coupled systems from local to global scales and ultimately to

Custom Descriptive Pages



234 Citations

For all versions of the data sets in this repository, the number of citations reported to DataONE.

Christian Schöne and Michael Rother. 2018. Methanogenesis from Carbon Monoxide. *Biogenesis of Hydrocarbons*, pp. 1-29. https://doi.org/10.1007/978-3-319-53114-4_1. Cites Data: (T. J. Blasing 2013).

George Brett RUMINON, Stephen A. PRIOR, Tyler A. MONDAY, and Janice RYAN-BOHAC. 2018. Effects of Elevated CO₂ on Growth of the Industrial Sweetpotato Cultivar CX-1. *Environment Control in Biology*, Vol. 85, pp. 89-92. <https://doi.org/10.2525/evb.56.89>. Cites Data: (Ralph F. Keeling et al. 2009).

Kieran M. Stanley, Aoife Grant, Simon O'Doherty, Dickon Young, Alistair J. Manning, et al. 2018. Greenhouse gas measurements from a UK network of tall towers: technical description and first results. *Atmospheric Measurement Techniques*, Vol. 11, pp. 1437-1458. <https://doi.org/10.5194/amt-11-1437-2018>. Cites Data: (R. Pries et al. 2001).

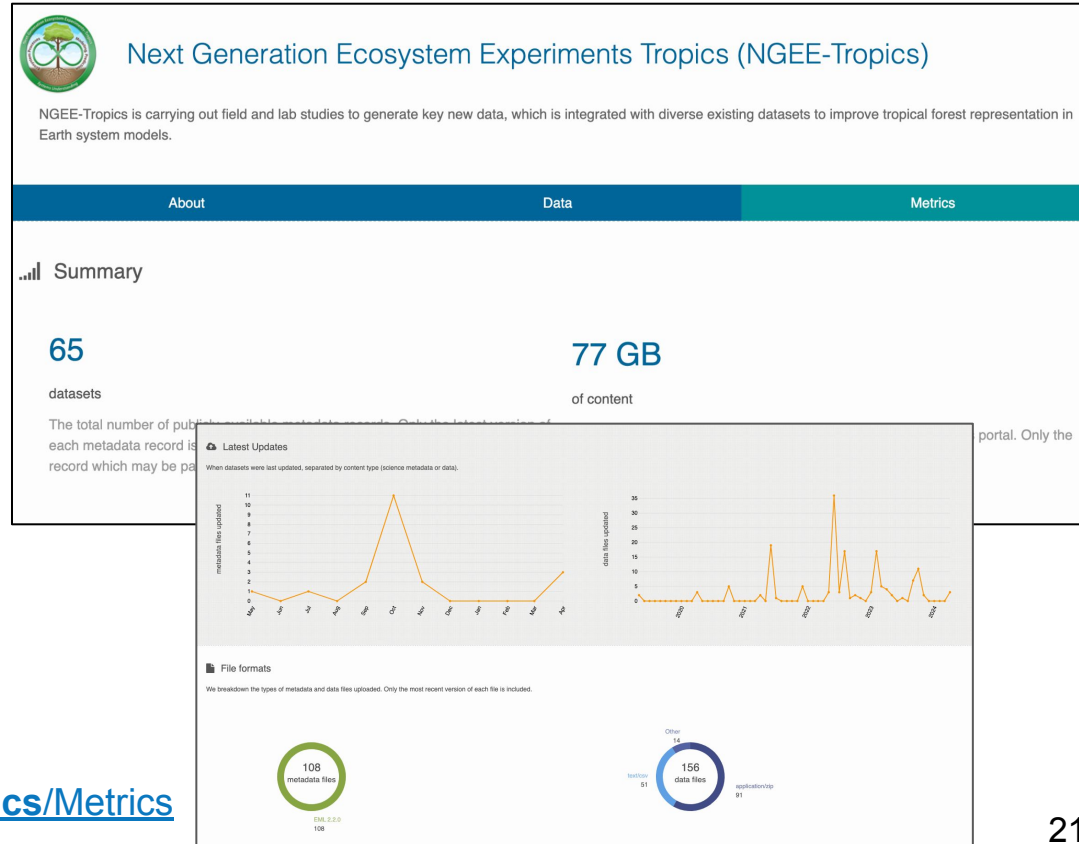
R. Lakshaj-Sovender and SH. Grab. 2018. Temperature trends for coastal and adjacent higher lying interior regions of KwaZulu-Natal, South Africa. *Theoretical and Applied Climatology*, International Journal of Climatology, Vol. 38, pp. 4384-4394. <https://doi.org/10.1002/joc.5675>.

Metrics: Summary of Holdings, View/Download/Citation Counts

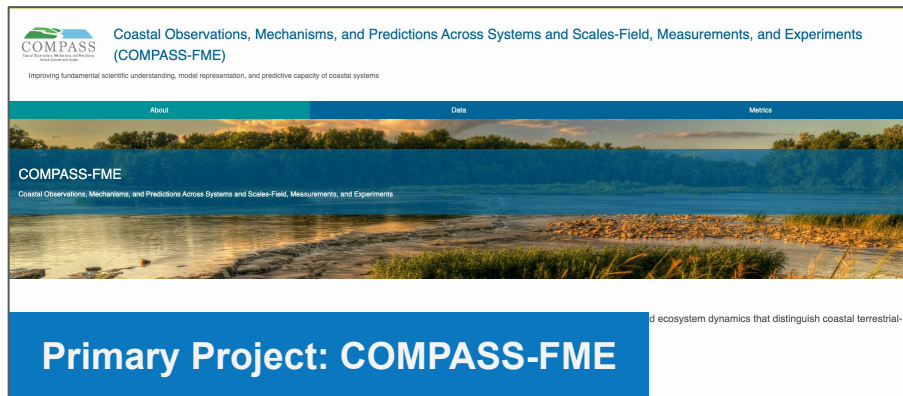
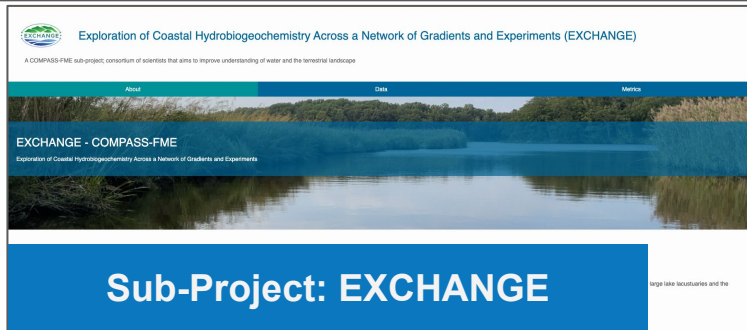
All Data Portal Metrics

- Total number of datasets
- Volume (bytes) of metadata records & data files
- Most recent date updated
- File types
- Years data collected
- Views, Downloads, Citations

<https://data.ess-dive.lbl.gov/portals/ngeetropics/Metrics>



Flexibility of Data Portal Branding

A screenshot of the COMPASS-FME data portal. At the top left is the COMPASS logo. The main header text reads "Coastal Observations, Mechanisms, and Predictions Across Systems and Scales-Field, Measurements, and Experiments (COMPASS-FME)". Below this is a navigation bar with "About", "Data", and "Metrics" links. A large banner image shows a coastal landscape with water and vegetation. Below the banner, the text "COMPASS-FME" is displayed, followed by the full project name. A blue bar at the bottom contains the text "Primary Project: COMPASS-FME".A screenshot of the EXCHANGE data portal. At the top left is the EXCHANGE logo. The main header text reads "Exploration of Coastal Hydrobiogeochemistry Across a Network of Gradients and Experiments (EXCHANGE)". Below this is a navigation bar with "About", "Data", and "Metrics" links. A large banner image shows a calm body of water reflecting the sky. Below the banner, the text "EXCHANGE - COMPASS-FME" is displayed, followed by the full project name. A blue bar at the bottom contains the text "Sub-Project: EXCHANGE".

Data Portals can represent any theme

Create multiple portals to organize different scientific initiatives:

- Experiments
- Study Areas
- Projects
- Subcontracts or Sub-projects

Customize branding of **banner images**, **logos**, and **URLs** to center around the theme

<https://data.ess-dive.lbl.gov/portals/ngheetropics>
<https://data.ess-dive.lbl.gov/portals/compass>
<https://data.ess-dive.lbl.gov/portals/EXCHANGE>

Data is published under one funding project

Project Data Portals



Collect all project data in one place

A screenshot of the Carbon Dioxide Information Analysis Center (CDIAC) data portal. The page is titled "Hosted by ESS-DIVE" and "Carbon Dioxide Information Analysis Center". It features a navigation bar with tabs for "About", "Fossil-Fuel Emissions", "Vegetation Response to CO2", "FAQs", and "Data". A search bar is present with the text "Search these datasets". Below the search bar, a box highlights "DATASETS 1 TO 25 OF 226". There are pagination controls showing "1 2 3 ... 10 Next" and a "Sort by" dropdown menu set to "Most recent". The main content area displays a list of datasets with their titles and authors. The first dataset is by Prinn R; Weiss R; Arduini J; Arnold T; DeWitt H; Fraser P; Ganesan A; Gasore J; Harth C; Hermansen O; Kim J; Krummel P; Li S; Loh Z; Lunder C; Maione M; Manning A; Miller B; Mitrevski B; Muhle J; O'Doherty S; Park S; Reimann S; Rigby M; Saito T; Salameh P; Schmidt R; Simmonds P; Steele L; Vollmer M; Wang H J (; Yao B; Yokouchi Y; Young D; Zhou L (2018): "History of chemically and radiatively important atmospheric gases from the Advanced Global Atmospheric Gases Experiment (AGAGE)". The second dataset is by Kovacs K; Horvath E (2000): "The United Nations Population Statistics Database". The third dataset is by Blake D (2005): "Methane, Nonmethane Hydrocarbons, Alkyl Nitrates, and Chlorinated Carbon Compounds including 3 Chlorofluorocarbons (CFC-11, CFC-12, and CFC-113) in Whole-air Samples (April 1979 – December 2012)". To the right of the dataset list is a map of the world with numbered markers (1, 2, 7, 9) indicating the locations of the datasets. The map includes labels for "Greenland", "Canada", "United States", "Mexico", "Algeria", "Libya", "Poland", "Spain", "United Kingdom", "Norway", "Denmark", and "Finland".

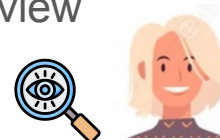
Mirror existing project websites onto a data portal at the end of project's life for long term maintenance

Preserve information regarding the project's objectives, scopes, and organization for years to come

Option to manage your project datasets from this view

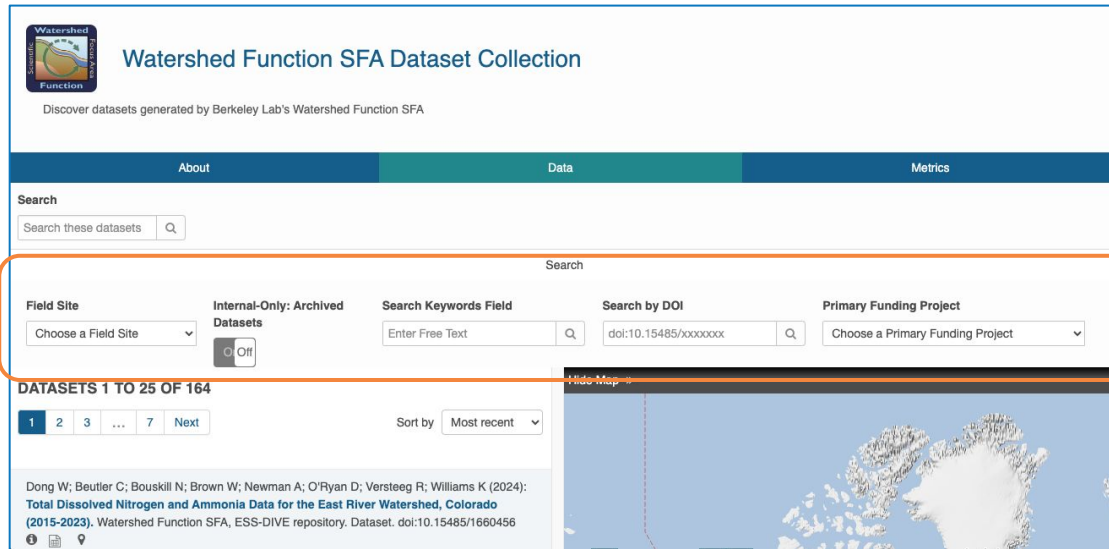
<https://data.ess-dive.lbl.gov/portals/CDIAC>

Add data portal URLs to project or institutional webpages



Custom Data Filters

Data filters customize how you look up data

A screenshot of the "Watershed Function SFA Dataset Collection" web interface. The page has a header with a logo and title, and a navigation bar with "About", "Data", and "Metrics" tabs. Below the navigation bar is a search bar with the text "Search these datasets". A large orange box highlights the "Search" section, which includes several filters: "Field Site" (a dropdown menu), "Internal-Only: Archived Datasets" (a toggle switch), "Search Keywords Field" (a text input), "Search by DOI" (a text input with a search icon), and "Primary Funding Project" (a dropdown menu). Below the search filters, there is a section for "DATASETS 1 TO 25 OF 164" with a pagination bar and a "Sort by" dropdown menu. A map is visible in the background of the dataset list.

They enable **targeted searches** within a collection

Can be used to:

- **Expand report** of project publication progress to DOE
- **Internally track** datasets by type or project-specific category



Questions?

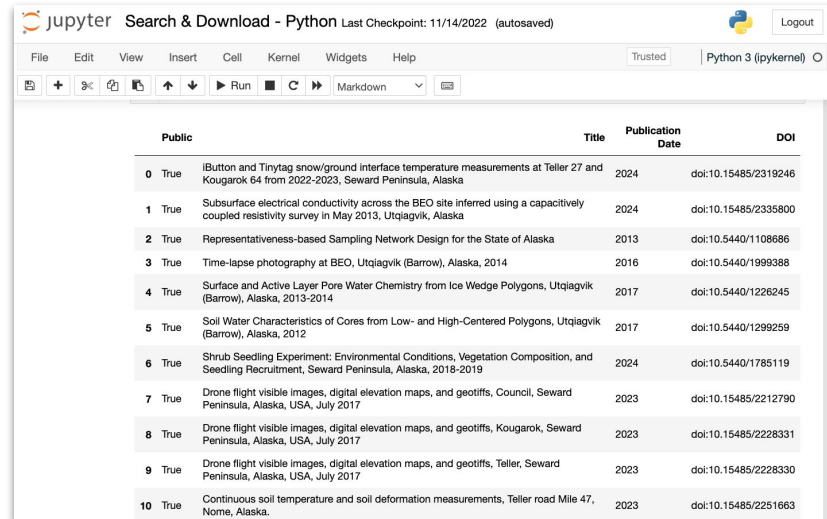


Report Data Publication Metrics to DOE

Download Publication Report

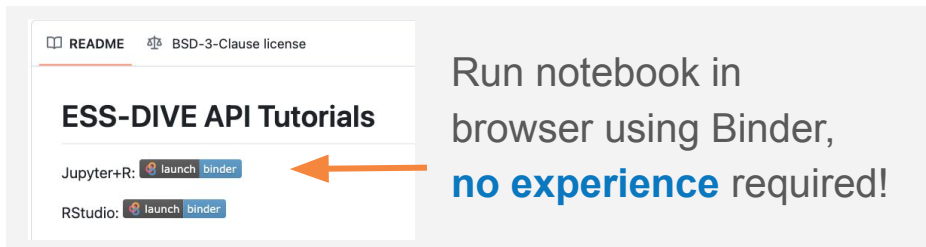
ESS-DIVE offers a ready-made **Jupyter Notebook tool** that can grab information about publication progress

- Dataset titles & DOIs
- No. of private and public datasets
- Year of publication



Jupyter Search & Download - Python Last Checkpoint: 11/14/2022 (autosaved)

	Public	Title	Publication Date	DOI
0	True	iButton and Tinytag snow/ground interface temperature measurements at Teller 27 and Kougarak 64 from 2022-2023, Seward Peninsula, Alaska	2024	doi:10.15485/2319246
1	True	Subsurface electrical conductivity across the BEO site inferred using a capacitively coupled resistivity survey in May 2013, Utqiagvik, Alaska	2024	doi:10.15485/2335800
2	True	Representativeness-based Sampling Network Design for the State of Alaska	2013	doi:10.5440/1108686
3	True	Time-lapse photography at BEO, Utqiagvik (Barrow), Alaska, 2014	2016	doi:10.5440/1999388
4	True	Surface and Active Layer Pore Water Chemistry from Ice Wedge Polygons, Utqiagvik (Barrow), Alaska, 2013-2014	2017	doi:10.5440/1226245
5	True	Soil Water Characteristics of Cores from Low- and High-Centered Polygons, Utqiagvik (Barrow), Alaska, 2012	2017	doi:10.5440/1299259
6	True	Shrub Seeding Experiment: Environmental Conditions, Vegetation Composition, and Seeding Recruitment, Seward Peninsula, Alaska, 2018-2019	2024	doi:10.5440/1785119
7	True	Drone flight visible images, digital elevation maps, and geotiffs, Council, Seward Peninsula, Alaska, USA, July 2017	2023	doi:10.15485/2212790
8	True	Drone flight visible images, digital elevation maps, and geotiffs, Kougarak, Seward Peninsula, Alaska, USA, July 2017	2023	doi:10.15485/2228331
9	True	Drone flight visible images, digital elevation maps, and geotiffs, Teller, Seward Peninsula, Alaska, USA, July 2017	2023	doi:10.15485/2228330
10	True	Continuous soil temperature and soil deformation measurements, Teller road Mile 47, Nome, Alaska.	2023	doi:10.15485/2251663



README BSD-3-Clause license

ESS-DIVE API Tutorials

Jupyter+R: [launch binder](#)

RStudio: [launch binder](#)

Run notebook in browser using Binder, **no experience** required!

Download a list of all project datasets

Setup search terms **once**, reuse notebook whenever needed

Link to Project Data Portal Metrics

Provide data portal URL directly in project reports, or copy metric numbers

234 Citations

For all versions of the data sets in this repository, the number of citations reported to DataONE.

Christian Schöner and Michael Rother. 2018. Methanogenesis from Carbon Monoxide. Biogenesis of Hydrocarbons. pp. 1-29. https://doi.org/10.1007/978-3-319-53114-4_4-1.
Cites Data: (T. J. Blasing 2013).

George Brett RUNION, Stephen A. PRICR, Tyler A. MONDAY, and Janice RYAN-BOHAC. 2018. Effects of Elevated CO₂ on Growth of the Industrial Sweetpotato Cultivar CX-1. Environment Control in Biology. Vol. 56, pp. 89-92. <https://doi.org/10.2525/ecb.56.89>.
Cites Data: (Ralph F. Keeling et al. 2009).

Kieran M. Stanley, Aolife Grant, Simon O'Doherty, Dickon Young, Alistair J. Manning, et al. 2018. Greenhouse gas measurements from a UK network of tall towers: technical description and first results. Atmospheric Measurement Techniques. Vol. 11, pp. 1437-1458. <https://doi.org/10.5194/amt-11-1437-2018>.
Cites Data: (R. Pirm et al. 2001).

R. Lakshaj-Govender and SW. Grab. 2018. Temperature trends for coastal and adjacent higher lying interior regions of KwaZulu-Natal, South Africa. Theoretical and Applied Climatology. <https://doi.org/10.1007/s00704-018-2002-6>.
Cites Data: (P. D. Jones et al. 2005).

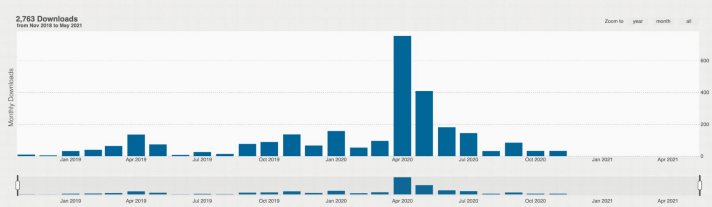
Richard Day, Linying Chen, and Edward Hanna. 2016. Arctic amplification metrics. International Journal of Climatology. Vol. 38, pp. 4384-4394. <https://doi.org/10.1002/joc.5675>.
Cites Data: (J. E. Hansen et al. 2009).


2.8K Downloads

For all versions of the data sets in this portal, the number of times that all or part of these data sets were downloaded over time. These download counts are COUNTER compliant, meaning that downloads from some Internet robots and repeat downloads within a certain time window are excluded.

Drag the slider to visualize a specific time window for the download events.

2,763 Downloads
From Nov 2018 to May 2021



 **Next Generation Ecosystem Experiments Tropics (NGEE-Tropics)**

NGEE-Tropics is carrying out field and lab studies to generate key new data, which is integrated with diverse existing datasets to improve tropical forest representation in Earth system models.

About | **Data** | Metrics

Summary

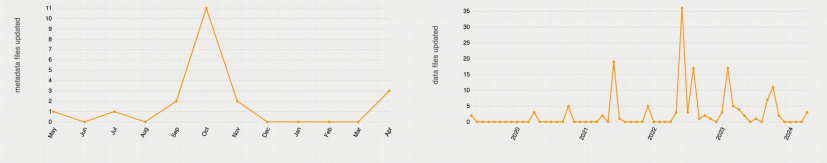
65 datasets of content

77 GB of content

The total number of publicly-available metadata records. Only the latest version of each record.

Latest Updates

When datasets were last updated, separated by content type (science metadata or data).



File formats

We breakdown the types of metadata and data files uploaded. Only the most recent version of each file is included.

108 metadata files
EML 2.2.0 108

156 data files
application/zip 91
text/xml 51
Other 14

What's Next?



Jupyter notebook to view and download list of datasets published within a certain time period for a project

Tentative FY24 plans:

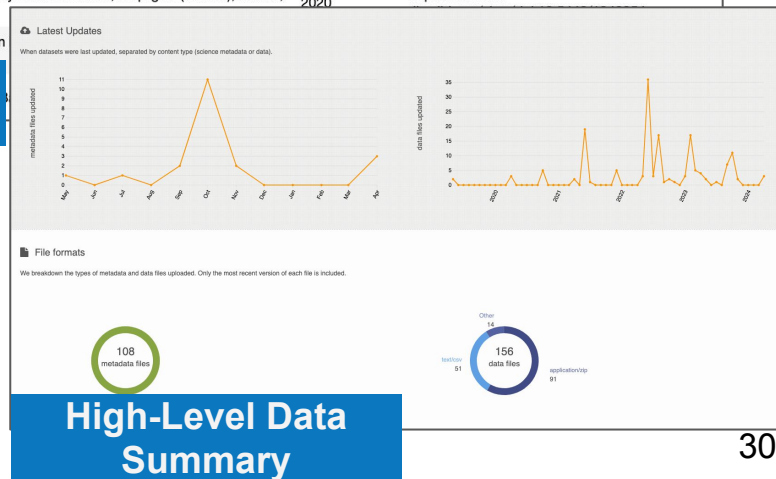
Grant access to all project datasets by PI request

Augment current metrics to include:

- View and download metrics
- Datasets published over time
- Display additional dataset metadata of interest

	Public	Title	Publication Date	URL
0	True	Leaf Carbon and Nitrogen Content, Seward Peninsula, Alaska, 2014	2020	https://data.ess-dive.lbl.gov/view/doi:10.5440/1575068
1	True	Leaf Photosynthetic Parameters: Quantum Yield, Convexity, Respiration, Gross CO2 Assimilation Rate and Raw Gas Exchange Data, Utqiagvik (Barrow), Alaska, 2016	2019	https://data.ess-dive.lbl.gov/view/doi:10.5440/1482338
2	True	NGEE Arctic Plant Traits: Fine Roots, Kougarok Road Mile Marker 64, Seward Peninsula, Alaska, 2016	2021	https://data.ess-dive.lbl.gov/view/doi:10.5440/1735941
3	True	Active Layer Hydrology in an Arctic Tundra Ecosystem: Quantifying Water Sources and Cycling Using Water Stable Isotopes: Supporting Data	2019	https://data.ess-dive.lbl.gov/view/doi:10.5440/11164892
4	True	Radiocarbon in CO2 and Soil Organic Matter from Laboratory Incubations, Utqiagvik (Barrow), Alaska, 2012	2018	https://data.ess-dive.lbl.gov/view/doi:10.5440/1418852
5	True	Subsurface Flow Across Polygonal Tundra Measured by Bromide Tracer, Utqiagvik (Barrow), Alaska, 2015-2016	2020	https://data.ess-dive.lbl.gov/view/doi:10.5440/1418852
6	True	Alaskan carbon-climate feedbacks will be weaker than Alaskan Benchmark Data and Model runs		

Simple Publication Report



What do you want project metrics to look like?



We need your input to create ESS-wide project data metrics!

What do you want to add to our current metrics?

What do you wish you could report to DOE?

Are there visualizations you'd like to have?



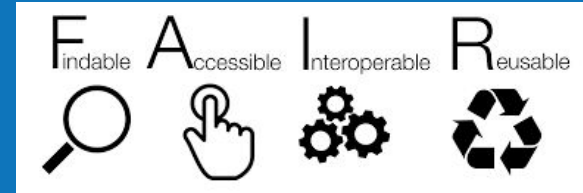
Feedback
Form →



Goal: provide a consistent set of metrics to all ESS projects on ESS-DIVE that can be accessed on-demand

<https://go.lbl.gov/essdive-metrics-feedback>

Making ESS Data FAIR



Reporting Formats

Reporting formats are instructions, templates, and tools for consistently formatting data within a discipline.

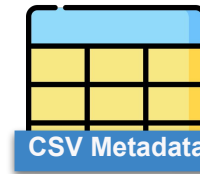
These data standards were developed by ESS-DIVE and **community partners** to standardize metadata and data files of data types commonly collected by DOE ESS projects.

No. of Reporting Formats available:

- **High-level, wide-range of data types: 7**
- **Data type specific: 6**



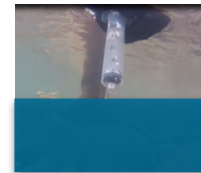
Velliquette, Heinz, Devarakonda
(ORNL)



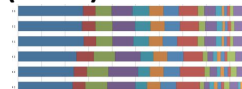
Amplicon
Sequencing
Weisenhorn (ANL)



Serbin, Ely (BNL)



Boye (SLAC)



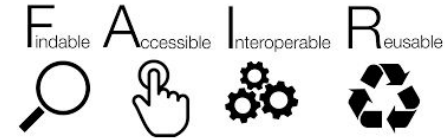
Weisenhorn (ANL)



Goldman (PNNL)

Benefits of Reporting Formats

The standardized data and metadata templates improve both human- and **machine-readability**

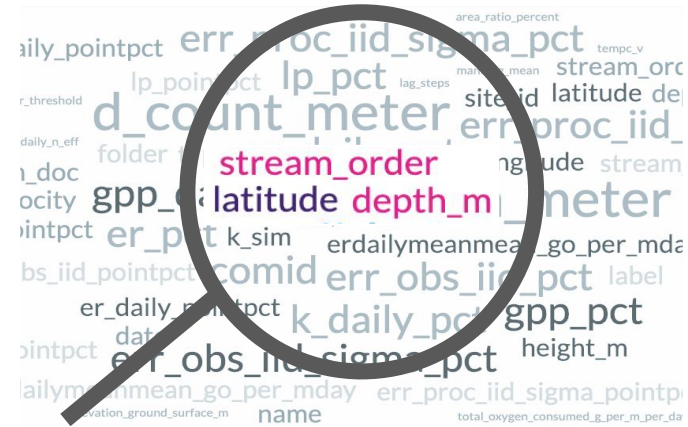
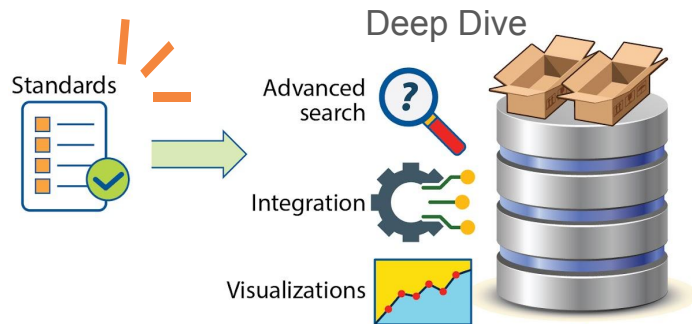


- Makes data more Findable, Accessible, Interoperable, Reusable
- Set consistent methods of reporting data within a project
- Allows scientists to **easily work with many datasets**
- **Parsable standards** enable advanced search
- Planned ESS-DIVE tools for advanced data search, integration, and visualization **will be based around these reporting formats**

DeepDive: Enhanced Data Search

The **Deep Dive API** is a new search capability that allows you to look for data **within dataset files** on ESS-DIVE

Deep Dive locates and extracts data from published datasets that have **completed File Level Metadata**



ESS-DIVE's publication workflow has been expanded to include **file reviews** for reporting format datasets

Suggestions for Getting Started

ESS-DIVE's Suggestions

- **Start with one** reporting format:
File Level Metadata
- **Get a head start:** Adopting reporting formats is easier before or during publication, than after

Publication Requirements

There are none!



It is **not** a requirement to adopt any reporting formats to publish data on ESS-DIVE

More capabilities to come!

Adopt reporting formats to take advantage of future programmatic tools

File Level Metadata help documentation:

<https://ess-dive.gitbook.io/file-level-metadata-reporting-format>

Coming soon!

New features to support data management

Community Funds

- **\$1M funds** available in FY24
- Submit **white paper** proposals by May 15 (max 2 pages)
 - Email with details and template will be sent later this week
- Preference given to **Priority Topics**
 - **New reporting formats**
 - **New versions of existing reporting formats:** Improve machine readability and compatibility with FusionDB, BASIN-3D etc., model data archiving for large outputs/ML
 - **Community data curators:** Provide guidance to ESS community on best practices for submitting data to ESS-DIVE & help with adoption of reporting formats
 - **Data integration:** Tools to integrate ESS-DIVE and other BER data
 - **Community data products:** Products using ESS-DIVE & BER data for broad scientific use
- Can propose other ideas that have clear value for the ESS community

Tracking Dataset Status

All Available Statuses

DOI Statuses

DOI Status

No DOI Added

DOI Status

Reserved

DOI Status

Pending

DOI Status

Live

Review Statuses

Review Status

Drafting

Review Status

Review & Revise

Review Status

Published

The current CDIAC data listing is incomplete, and will be updated by May 2018. Click [here](#) for the CDIAC transition website

Need help? Email us at ess-dive-support@lbl.gov

ESS-DIVE
Deep Insights for Earth Science Data

DATA PORTALS PROJECTS GET STARTED ABOUT **SUBMIT DATA** HESHAM

< Back to search | Home | Search / Metadata

DATASET ess-dive-48192868f7c787f-20240322T102251168108

SPRUCE S1 Bog Peat Depth Determined by Push Probe and GPR: 2009-2010

L Slater, P J Hanson, and L A Hook

🔒 Downloads 0 🗨 Citations 0 👁 Views 0

🔗 Cite this dataset 📄 Assessment report ✎ Edit 🌟 Manage Publication

Files in this dataset Package: ess-dive-b07fab4f0ccaf-20240322T102251734872

Name	File type	Size	Download All
Metadata: SPRUCE_S1_Bog_Peat_Depth_Determined_by_Push_Probe_and_GPR_2009_2010.xml	EML v2.2.0	4 KB	Download

General

Identifier

DOI Status

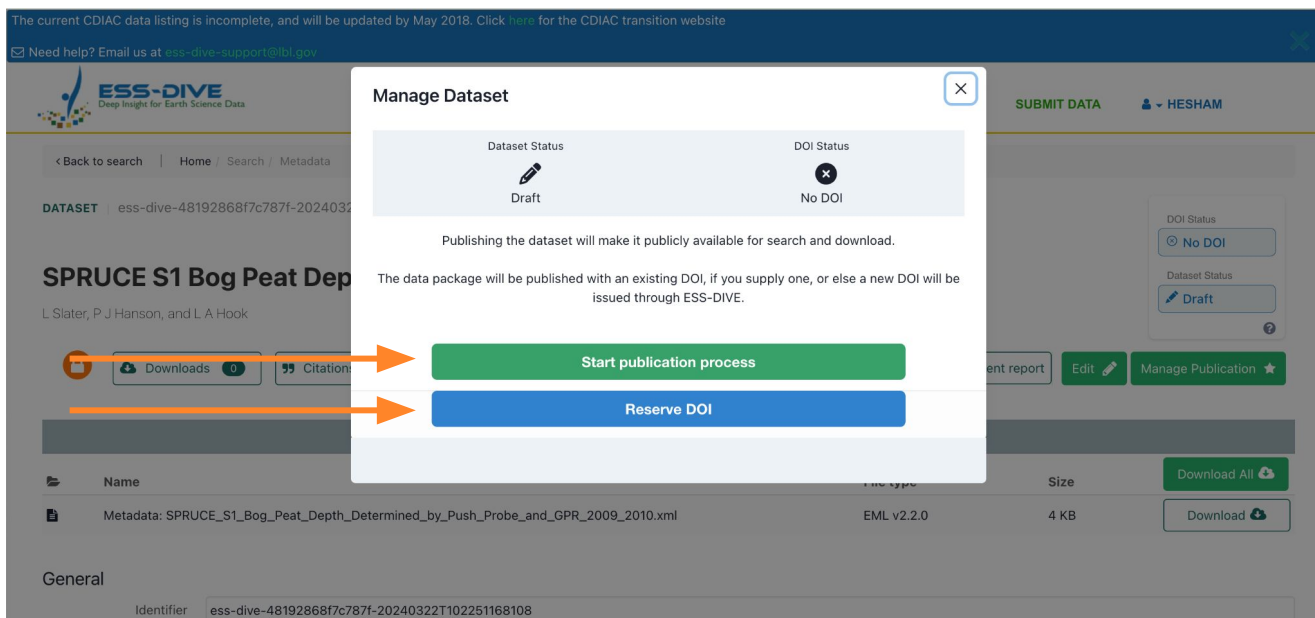
No DOI

Dataset Status

Draft

Streamlining Publication Process

We will host a webinar with more information when these features are released



The current CDIAC data listing is incomplete, and will be updated by May 2018. Click [here](#) for the CDIAC transition website

Need help? Email us at ess-dive-support@lbl.gov

Manage Dataset

Dataset Status: Draft

DOI Status: No DOI

Publishing the dataset will make it publicly available for search and download.

The data package will be published with an existing DOI, if you supply one, or else a new DOI will be issued through ESS-DIVE.

Start publication process

Reserve DOI

Background page details:
DATASET: ess-dive-48192868f7c787f-20240322
SPRUCE S1 Bog Peat Dep
L Slater, P J Hanson, and L A Hook
Buttons: Downloads, Citations, Submit Data, HESHAM, Draft, Manage Publication, Download All, Download

Summary: PI To-Do List

PI To-Do List

PIs can work with their data managers to:

- Designate a project data manager(s) who will be responsible for overseeing project data on ESS-DIVE
- Decide which capabilities are relevant for your research and data management plans and enforce them
- ★ Register as a data contributor to access all features
- ★ Fill out project data manager approval form
- **If needed:** Contact ESS-DIVE for help accessing your project datasets



PI To-Do List: Communicate with your Project

PIs and data managers can **communicate decisions and expectations** to your project members:

- **Register as a data contributor** to submit data
- Link to data published outside of ESS-DIVE
- Upload large volumes of data
- Adopt File Level Metadata reporting format
- Proactively share datasets with project teams

Depending on which features you'd like your project to use

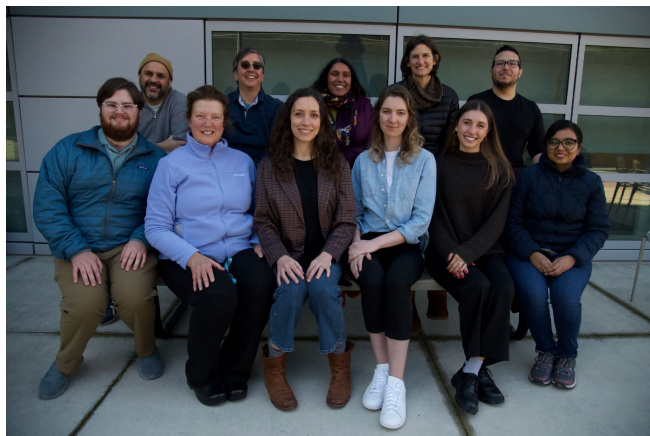
Data Manager To-Do List

PIs or Data Managers can:

- **Register as a data contributor** to access all features
- Create data portal(s)
- Establish project team(s)
- **Af needed:** Download project publication report and copy data portal metrics

Depending on which features you'd like your project to use

Thank you! Let's Stay Connected.



Contact us if you are interested in any hands on activities: ess-dive-support@lbl.gov

ESS-DIVE Documentation

docs.ess-dive.lbl.gov

Join our community mailing list!

<https://bit.ly/essdiveMailingList>

References

Icons



- Speak up icons created by Kalashnyk - Flaticon, <https://www.flaticon.com/free-icons/speak-up>



- Link icons created by Smashicons - Flaticon, <https://www.flaticon.com/free-icons/link>



- Iteration icons created by Uniconlabs - Flaticon, <https://www.flaticon.com/free-icons/iteration>



- Form icons created by Freepik - Flaticon, <https://www.flaticon.com/free-icons/form>



- Lock icons created by Freepik - Flaticon, <https://www.flaticon.com/free-icons/lock>



- Download icons created by Debi Alpa Nugraha - Flaticon, <https://www.flaticon.com/free-icons/download>



- Paste icons created by Pixel perfect - Flaticon, <https://www.flaticon.com/free-icons/paste>



- Idea icons created by Pixel perfect - Flaticon, <https://www.flaticon.com/free-icons/idea>



- Files and folders icons created by Smashicons - Flaticon, <https://www.flaticon.com/free-icons/files-and-folders>