

# ESS-DIVE is Live!

*ESS Cyberinfrastructure Working Group Meeting*

April 30, 2018





# Overview

- Introduction (Deb Agarwal)
- Infrastructure (Cory Snavelly)
- Demo (Val Hendrix)
- Discussion (Deb Agarwal)

# Introduction

ESS-DIVE is live!

A discussion of future scope and opportunities

# ESS-DIVE: A New Data Archive for Earth and Environmental Science Data



<http://ess-dive.lbl.gov>

## Challenge

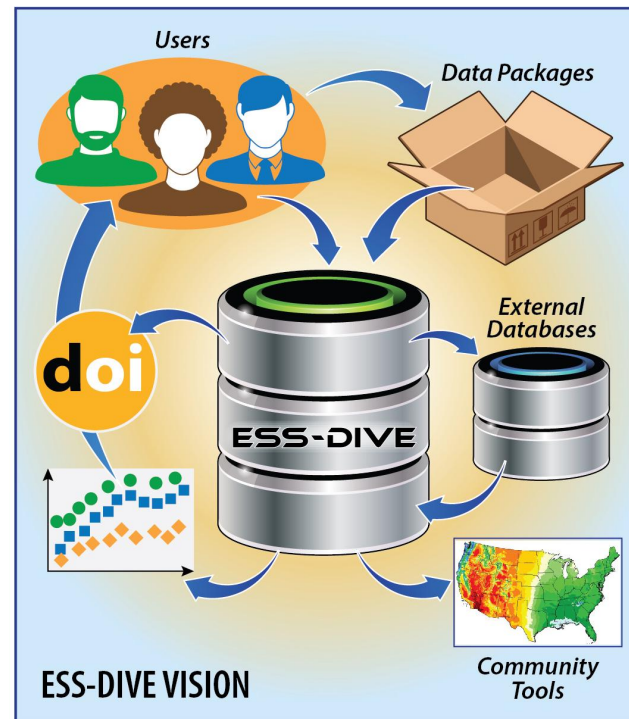
Preserve, expand access to, and improve usability of critical data generated or used by ESS projects

## Approach and Results

- ESS-DIVE available for archiving of data as of April 1, 2018
- Leverage emerging digital library technologies and data standards
- Data citation using Digital Object Identifiers (DOI)
- Incentivize data providers to contribute well-structured, standardized, high-quality data
- Transition legacy DOE data (CDIAC) into the new archive

## Significance and Impact

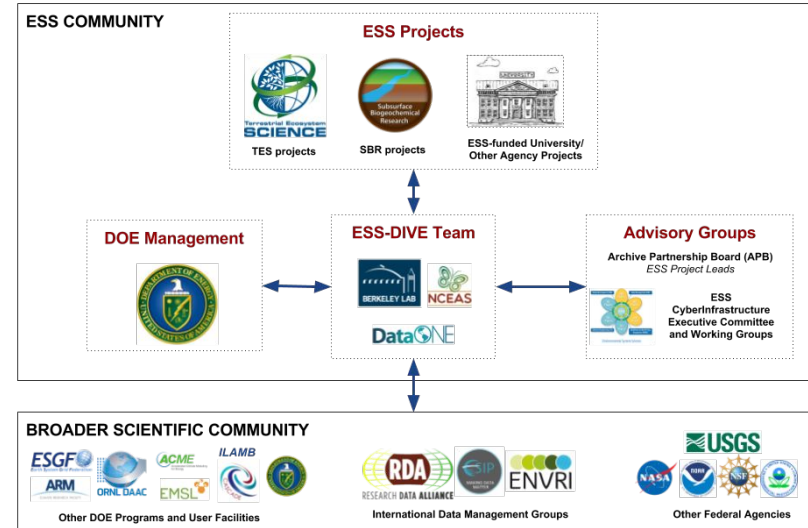
- Enables publishing of critical environmental science data
- Users able to find and obtain ESS data in usable formats



# ESS Community Engagement



- Worked with ESS Data Management Working Group in ESS-DIVE package metadata design
- Site visits to ORNL, CDIAC, OSTI, and SLAC/Stanford
- 2017 ESS CI and AGU presentation
- Formed Archive Partnership Board and had first meeting



# Archive Partnership Board



Stan Wullschleger (ORNL) John Bargar (SLAC)

Susan Hubbard (LBNL)

Margaret Torn (LBNL)

Paul Hanson (ORNL)

James Stegen (PNNL)

Eric Pierce (ORNL)

Annie Kersting (LLNL)

Ken Kemner (ANL)

Julie Jastrow (ANL)

Kate Maher (Stanford)

David Moulton (LANL)

Jennifer Power (U Minn)

Forrest Hoffman (ORNL)

Kristen DeAngelis (U Mass)

Dean Williams (LLNL) (not yet confirmed)

# ESS PI Meeting activities

- Posters (back of Ben Franklin Hall)
  - ESS-DIVE Overview
  - Community Engagement and Publishing Lifecycle
- 1:1 Help desk (besides posters)
- Tue 9:25-9:40 AM plenary talk (D. Agarwal)
- Wed 10-11:30 AM Tutorial Breakout Session (C. Varadharajan, Room 4)



Scan to your Calendar



Seeking input from ESS working groups on archive next steps.

We're hiring a postdoc to work on metadata standards, data processing and synthesis.

Job will be posted at [jobs.lbl.gov](http://jobs.lbl.gov)

### *Post hoc vs Post-Doc*

#### *The Post hoc Fallacy*

*To incorrectly assume "A" is the cause of "B" just because "A" preceded "B".*

*e.g. "All Professors have Ph.D.'s, therefore getting a Ph.D. means you'll get a Professor job (right?)"*



#### *The Post-Doc Fallacy*

*To incorrectly assume you'll have a job just because you have a Ph.D.*

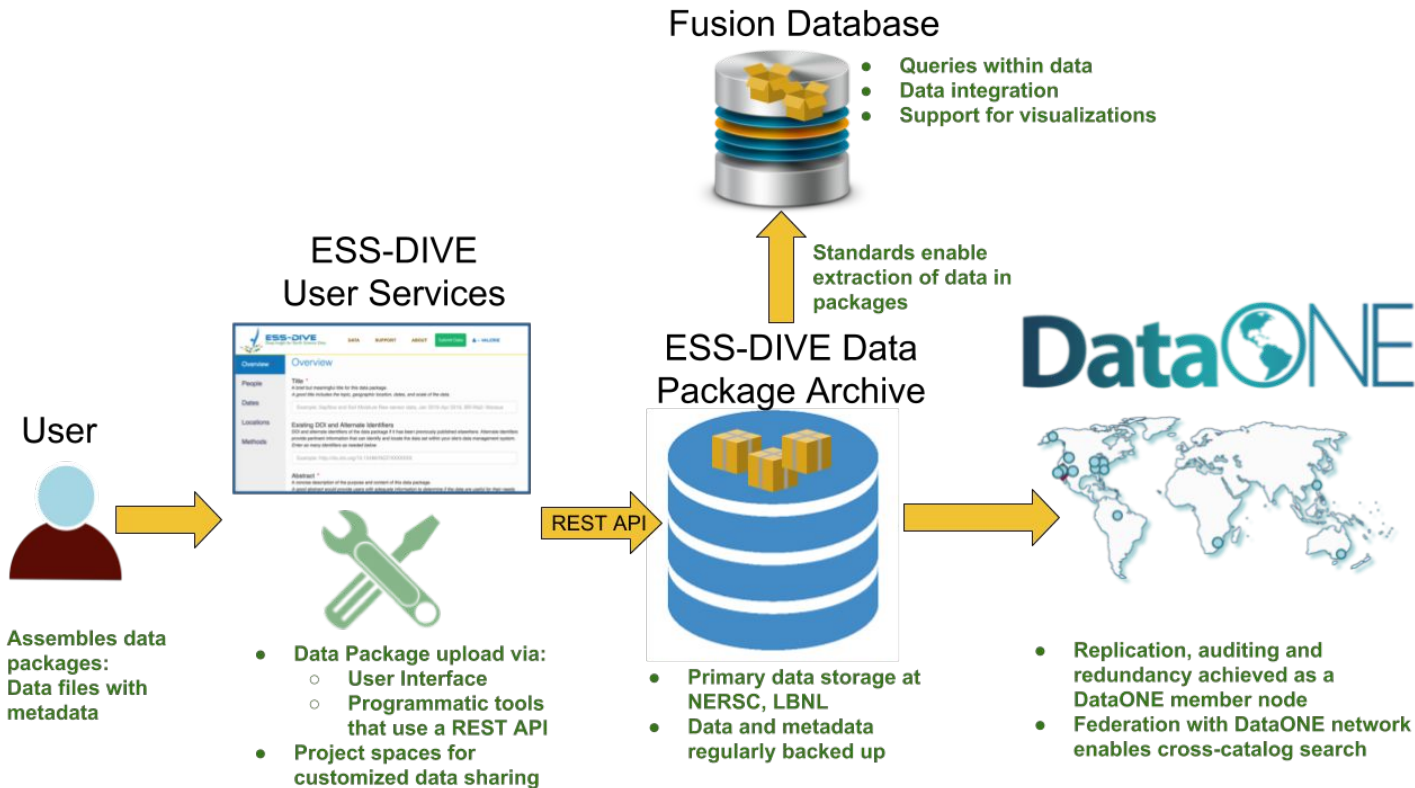
*e.g.  
"Now what???"*



# Infrastructure

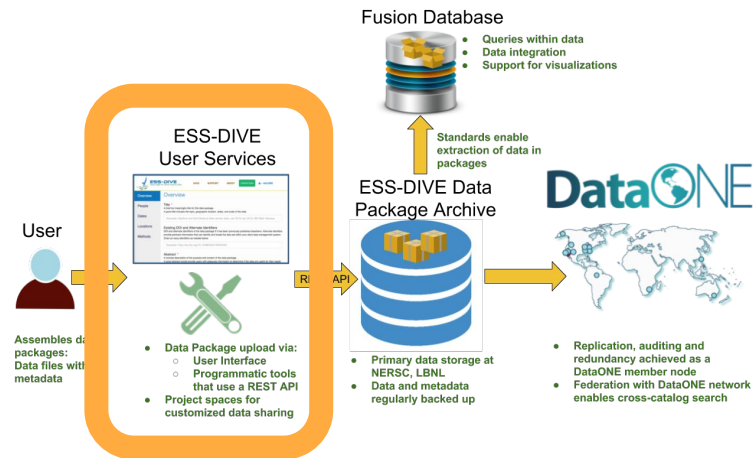
An overview of ESS-DIVE infrastructure, highlighting its primary features and the benefits brought by the LBNL / NERSC / NCEAS partnership.

# ESS-DIVE Archiving Features



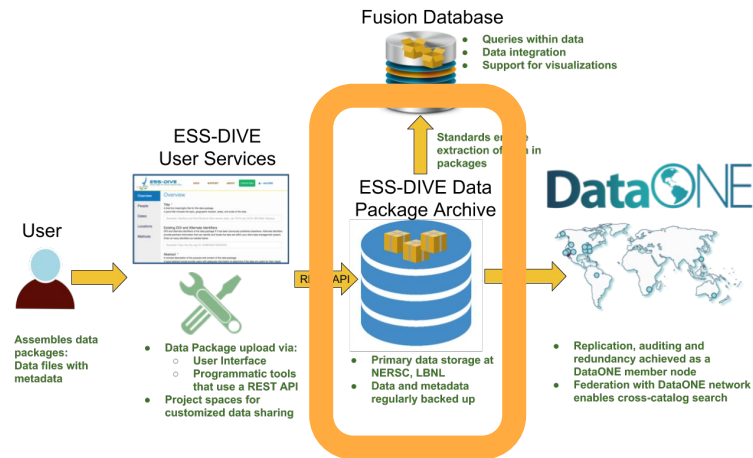
# Feature: User Services with Metacat

- Developed at NCEAS for earth sciences community
- Robust support for relevant metadata standards, data deposit, and data auditing / management
- Integrates with DataONE
- Web UI and REST API



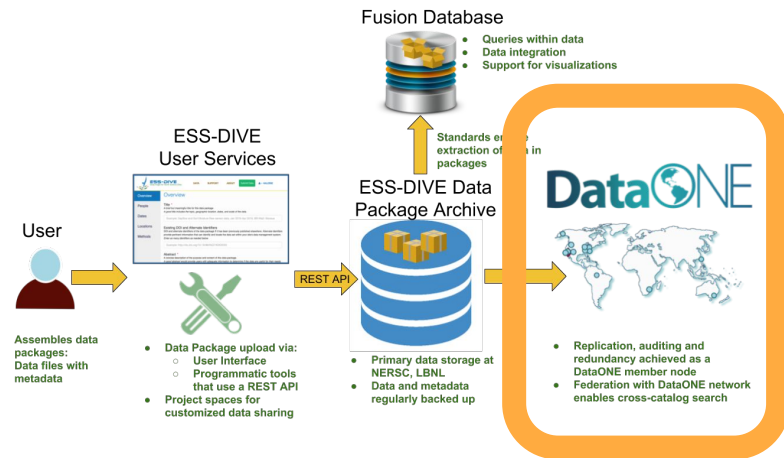
# Feature: Microservice Architecture at NERSC

- Built on supported *Spin* platform for web and network services
- Integrated with NERSC storage systems, HPC, and network
- Docker enables rigorous version control over software and underlying systems
- Multiple instances easy to “spin up” using isolated containers



# Feature: DataONE network membership

- Robust protocol for data integrity and replication
- Geographic distribution ensures continuity of data preservation and access
- Federated search enhances discovery



# Features and Benefits Summary



User Services based on Metacat archive management software and data tools



Quick start-up; robust functionality; metadata and tools grounded in earth sciences community

Microservice architecture on NERSC's new Docker-based platform, *Spin*



Integrated with petascale file systems, HPC, and fast network; rigorous version-controlled software stack and system architecture

DataONE network membership



Reliable data integrity and replication; geographic distribution protects against localized risks; broadened discovery through federation



# ESS-DIVE Demo

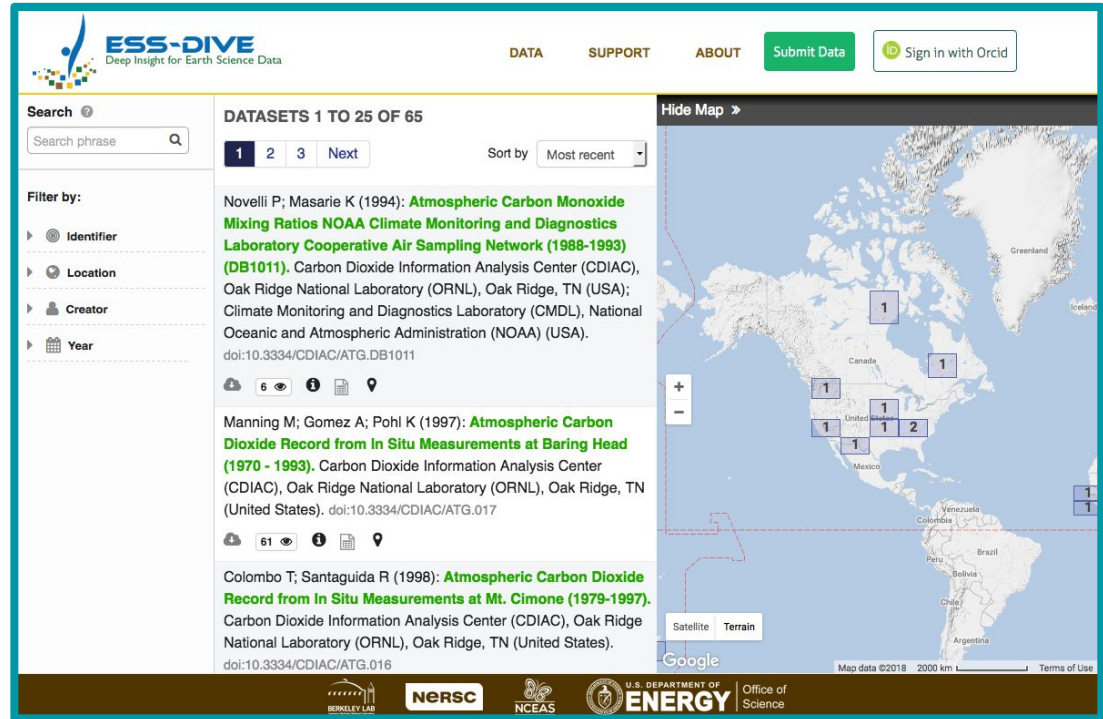
<https://data.ess-dive.lbl.gov>

Demonstration of *ESS-DIVE Data Archive 1.0.0* capabilities launched on April 1, 2018.

# Initial Capabilities

ESS-DIVE Data Archive 1.0 initially supports most common and important ESS community use cases.

- Upload data and metadata bundled together as a data package.
- Release data packages publicly with a digital object identifier (DOI).
- Public search and download of ESS data packages.



**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT [Submit Data](#) [Sign in with Orcid](#)

Search

Filter by:

- Identifier
- Location
- Creator
- Year

**DATASETS 1 TO 25 OF 65**

1 2 3 Next Sort by: Most recent

Novelli P; Masarie K (1994): **Atmospheric Carbon Monoxide Mixing Ratios NOAA Climate Monitoring and Diagnostics Laboratory Cooperative Air Sampling Network (1988-1993) (DB1011)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA); Climate Monitoring and Diagnostics Laboratory (CMDL), National Oceanic and Atmospheric Administration (NOAA) (USA). doi:10.3334/CDIAC/ATG.DB1011

Manning M; Gomez A; Pohl K (1997): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Baring Head (1970 - 1993)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.017

Colombo T; Santaguida R (1998): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Mt. Cimone (1979-1997)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.016

Hide Map

Map data ©2018 2000 km Terms of Use

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# ESS-DIVE Demo

**ESS-DIVE Main Site**

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

**ESS-DIVE Playground**

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

# Discussion

# Discussion Items

- Input on Metadata fields and standards
  - Project/Publisher
  - Variables
  - Keywords
- DOI Publisher and data versioning
- Data usage rights (CC)
- Management of project data and access rights
- Use-cases and priorities for future development
  - **Access:** How do you want to access
  - **Upload:** How do you want to upload
    - Do you want automated uploads?



# Digital Object Identifier - DOI

- Unique DOI prefix for ESS-DIVE with OSTI -  
<https://doi.org/10.15485>
- Not planning to assign an infix
- Citation format
  - Creator (PublicationYear). Title. Version. Publisher.  
<https://doi.org/10.15485/xxxxxx>
- How do you want to handle publisher?
- Versioning?



# Usage Right Options - Creative Commons

## CC0 - Public domain, “No rights reserved”

- Public usage of your work allowed without restriction
- User is provided DOI citation information and requested to cite the DOI

## CCby4 - Public use with attribution of source

- Others who use your work in any way must cite the DOI
- Use of your work without citation requires author permission



# Backup Slides

# ESS-DIVE Demo

*ESS Cyberinfrastructure Working Group Meeting*

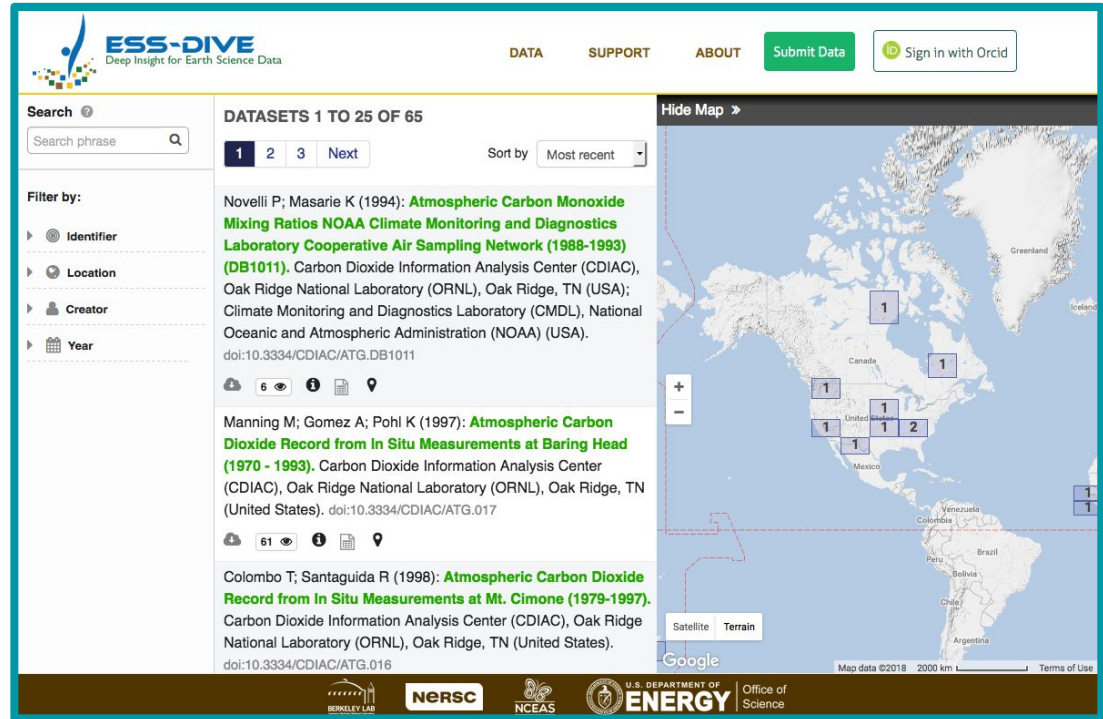
April 30, 2018



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**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT [Submit Data](#) [Sign in with Orcid](#)

Search

Filter by:

- Identifier
- Location
- Creator
- Year

**DATASETS 1 TO 25 OF 65**

1 2 3 Next Sort by: Most recent

Novelli P; Masarie K (1994): **Atmospheric Carbon Monoxide Mixing Ratios NOAA Climate Monitoring and Diagnostics Laboratory Cooperative Air Sampling Network (1988-1993) (DB1011)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA); Climate Monitoring and Diagnostics Laboratory (CMDL), National Oceanic and Atmospheric Administration (NOAA) (USA). doi:10.3334/CDIAC/ATG.DB1011

Manning M; Gomez A; Pohl K (1997): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Baring Head (1970 - 1993)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.017

Colombo T; Santaguida R (1998): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Mt. Cimone (1979-1997)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.016

Hide Map

Map data ©2018 2000 km Terms of Use

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# Main Page - Public view



The screenshot shows the ESS-DIVE public view interface. At the top left is the ESS-DIVE logo with the tagline "Deep Insight for Earth Science Data". Navigation links for "DATA", "SUPPORT", and "ABOUT" are present, along with a green "Submit Data" button and a "Sign in with Orcid" button. A search bar is located on the left, and a "Filter by:" section includes categories like Identifier, Location, Creator, and Year. The main content area displays a list of datasets, with the first one selected. The selected dataset is titled "Atmospheric Carbon Monoxide Mixing Ratios NOAA Climate Monitoring and Diagnostics Laboratory Cooperative Air Sampling Network (1988-1993) (DB1011)". Below the title, it provides details about the data source (NOAA), location (Oak Ridge National Laboratory), and DOI. A "Login to Download" button is visible next to the dataset entry. To the right, a map of North America shows the locations of the sampling sites, with numbered markers (1 and 2) indicating specific sites. The map includes zoom controls and a "Hide Map" button. At the bottom, there is a footer with logos for Berkeley Lab, NERSC, NCEAS, and the U.S. Department of Energy Office of Science.

**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT Submit Data Sign in with Orcid

Search Search phrase

Filter by:  
Identifier  
Location  
Creator  
Year

**DATASETS 1 TO 25 OF 65**

1 2 3 Next Sort by Most recent

Novelli P; Masarie K (1994): **Atmospheric Carbon Monoxide Mixing Ratios NOAA Climate Monitoring and Diagnostics Laboratory Cooperative Air Sampling Network (1988-1993) (DB1011)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA); Climate Monitoring and Diagnostics Laboratory (CMDL), National Oceanic and Atmospheric Administration (NOAA) (USA). doi:10.3334/CDIAC/ATG.DB1011

Login to Download

Manning M; Gomez A; Pohl K (1997): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Baring Head (1970 - 1993)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.017

61

Colombo T; Santaguida R (1998): **Atmospheric Carbon Dioxide Record from In Situ Measurements at Mt. Cimone (1979-1997)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/ATG.016

Hide Map

Satellite Terrain

Map data ©2018 2000 km Terms of Use

You may view public metadata but you must login to download data packages.

# Main Page - Logged in view



The screenshot displays the ESS-DIVE main page for a logged-in user named Valerie. The page includes a search bar, a filter sidebar, a list of datasets, and a map of North America. The datasets list shows three entries, each with a lock icon indicating access status. The map shows numbered markers (1 and 2) representing data packages with geographic coverage metadata.

**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT **Submit Data** VALERIE

Search

Filter by:

- Identifier
- Location
- Creator
- Year

**DATASETS 1 TO 25 OF 93**

1 2 3 4 Next Sort by Most recent

J. H (2002): **Throughfall Displacement Experiment (TDE) Ecosystem Model Intercomparison Project Data Archive.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA). doi:10.3334/CDIAC/VRC.002

8

Gornitz V; White T (1994): **A Coastal Hazards Data Base for the U.S. Gulf Coast (1993) (NDP-04bB).** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/SSR.NDP043B

2

Edmonds J; Reilly J; Barns D (1995): **The IEA/ORAU Long-Term Global Energy- CO2 Model: Personal Computer Version A84PC.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee (USA); Institute for Energy Analysis, Oak Ridge Associated Universities, Washington, D.C. (USA). doi:10.3334/CDIAC/ESS.CMP002

3

Hide Map

Satellite Terrain

Google

Map data ©2018 2000 km Terms of Use

Indicates data packages that the user uploaded and are not publicly released.

Data packages with geographic coverage metadata will show up on the map.

Lists all of the unreleased and publicly released data packages the logged in user has access to.

# Search - Logged in view



**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT **Submit Data** VALERIE

Search

Filter by:  
Identifier  
Location  
Creator  
Year

**DATASETS 1 TO 25 OF 93**

1 2 3 4 Next Sort by Most recent

J. H (2002): **Throughfall Displacement Experiment (TDE) Ecosystem Model Intercomparison Project Data Archive.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA). doi:10.3334/CDIAC/VRC.002

Gornitz V; White T (1994): **A Coastal Hazards Data Base for the U.S. Gulf Coast (1993) (NDP-04bB).** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/SSR.NDP043B

Edmonds J; Reilly J; Barns D (1995): **The IEA/ORAU Long-Term Global Energy- CO2 Model: Personal Computer Version A84PC.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee (USA); Institute for Energy Analysis, Oak Ridge Associated Universities, Washington, D.C. (USA). doi:10.3334/CDIAC/ESS.CMP002

Hide Map >>

Clicking a number on map

Satellite Terrain

Map data ©2018 2000 km Terms of Use

# Search - Logged in view



The screenshot displays the ESS-DIVE search interface. At the top left is the ESS-DIVE logo with the tagline "Deep Insight for Earth Science Data". Navigation links for "DATA", "SUPPORT", and "ABOUT" are present, along with a "Submit Data" button and a user profile for "VALERIE". A green bar at the top contains a "Clear all filters" button. The search bar on the left contains the text "DATASETS 1 TO 6 OF 6". Below the search bar are filter options: Identifier, Location, Creator, and Year. The search results list three entries, each with a title, description, and DOI. A map on the right shows the United States with two blue boxes labeled "1" indicating search results. A "Hide Map" button and a checked "Limit my search to the map area" option are also visible.

ESS-DIVE  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT Submit Data VALERIE

✕ Clear all filters

Search

Sort by

Hide Map  Limit my search to the map area

Filter by:

- Identifier
- Location
- Creator
- Year

Razuvaev V; Apasova E; Martuganov R (2018): **Daily Temperature and Precipitation Data for 223 Former-USSR Stations (NDP-040)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/CLI.NDP040

Griffis T; Baker J; Millet D; Chen Z; Wood J; Erickson M; Lee X (2018): **KCMP Minnesota Tall Tower Nitrous Oxide Inverse Modeling Dataset 2010-2015**. AmeriFlux Network Management Project. doi:10.15485/1398272

Kaiser D (2012): **DayRec: An Interface for Exploring United States Record-Maximum/Minimum Daily Temperatures**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/CLI.101

Kimball B; Mauney J; Morte B; Guinn G; Nakayama F; Radin J

United States

Map data ©2018 Google, INEGI 200 km

Click to clear the filters

Zooms into the map AND filters the list



# Search - Logged in view



The screenshot shows the ESS-DIVE website interface. At the top left is the ESS-DIVE logo and navigation links: DATA, SUPPORT, ABOUT, and a green 'Submit Data' button. A user profile 'VALERIE' is visible in the top right. The search bar contains 'fossil fuels'. Below the search bar are filter options: Identifier, Location, Creator, and Year. The main content area displays 'DATASETS 1 TO 25 OF 93' and a list of three dataset entries. Each entry includes the author(s), year, dataset title, description, location, and DOI. To the right of the text is a map of North and South America with blue boxes containing numbers (1 or 2) indicating dataset locations. The map includes zoom controls and a 'Hide Map' button. At the bottom of the map area are 'Satellite' and 'Terrain' view options, the Google logo, and a scale bar.

**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT **Submit Data** VALERIE

Search

Filter by:  
Identifier  
Location  
Creator  
Year

**DATASETS 1 TO 25 OF 93**

1 2 3 4 Next Sort by Most recent

J. H (2002): **Throughfall Displacement Experiment (TDE) Ecosystem Model Intercomparison Project Data Archive.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA). doi:10.3334/CDIAC/VRC.002

Gornitz V; White T (1994): **A Coastal Hazards Data Base for the U.S. Gulf Coast (1993) (NDP-04bB).** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/SSR.NDP043B

Edmonds J; Reilly J; Barns D (1995): **The IEA/ORAU Long-Term Global Energy- CO2 Model: Personal Computer Version A84PC.** Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, Tennessee (USA); Institute for Energy Analysis, Oak Ridge Associated Universities, Washington, D.C. (USA). doi:10.3334/CDIAC/ESS.CMP002

Hide Map

Satellite Terrain

Map data ©2018 2000 km Terms of Use

Keyword search for "fossil fuels"

# Search - Logged in view



The screenshot shows the ESS-DIVE search results page. At the top left is the ESS-DIVE logo with the tagline "Deep Insight for Earth Science Data". Navigation links for DATA, SUPPORT, and ABOUT are in the top center. A green "Submit Data" button and a user profile for "VALERIE" are on the top right. A green bar below the navigation contains a "Clear all filters" button. The search bar on the left contains "Search phrase" and a magnifying glass icon. Below the search bar, the "My Search" section shows a filter for "fossil fuels" with a close button. The "Filter by:" section lists "Identifier", "Location", "Creator", and "Year" with expandable arrows. The main content area displays "DATASETS 1 TO 11 OF 11" and a "Sort by" dropdown set to "Most recent". Three dataset entries are visible, each with a title, description, and DOI. A map on the right shows the United States and surrounding regions, with a "Hide Map" button at the top left of the map area. The map includes zoom controls and a "Satellite/Terrain" toggle. The Google logo and "Map data ©2018 2000 km Terms of Use" are at the bottom of the map.

**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT Submit Data VALERIE

✕ Clear all filters

Search ?  
Search phrase 🔍

My Search  
fossil fuels ✕

Filter by:  
▶ Identifier  
▶ Location  
▶ Creator  
▶ Year

DATASETS 1 TO 11 OF 11  
Sort by Most recent ▾

Blasing T; Broniak C; Marland G (2004): **Estimates of Monthly CO2 Emissions and Associated 13C/12C Values from Fossil-Fuel Consumption in the U.S.A. (1981-2003)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States). doi:10.3334/CDIAC/FFE.001

Fung I (1993): **Goddard Institute for Space Studies (GISS) 3-Dimensional (3-D) Global Tracer Transport Model (DB1006)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (USA) Goddard Institute for Space Studies (GISS), NASA. doi:10.3334/CDIAC/CYC.DB1006

Francey R; Allison C (1995): **In situ Carbon 13 and Oxygen 18 Ratios of Atmospheric CO2 from Cape Grim, Tasmania, Australia, 1982-1993 (DB1014)**. Carbon Dioxide Information Analysis Center (CDIAC), Oak Ridge National Laboratory (ORNL), Oak Ridge, TN (United States); CSIRO Division of Atmospheric

Hide Map >

Greenland  
Iceland  
Canada  
United States  
Mexico  
Venezuela  
Colombia  
Peru  
Brazil  
Bolivia  
Chile  
Argentina

Satellite Terrain

Google  
Map data ©2018 2000 km Terms of Use

Filters the list by "fossil fuels"

# Menu Options - Data

A screenshot of the ESS-DIVE website interface. The top left features the ESS-DIVE logo and tagline "Deep Insight for Earth Science Data". The top navigation bar includes links for "DATA", "SUPPORT", and "ABOUT", a green "Submit Data" button, and a user profile for "VALERIE". A search bar is located on the left side of the page. The main content area displays "DATASETS 1 TO 9 OF 9" and a "Sort by" dropdown menu. The dropdown menu is open, showing "SEARCH" and "SUMMARY" options. A "Slide Map >" link is visible in the background, and a map of the United States is partially visible on the right side of the page.

**ESS-DIVE**  
Deep Insight for Earth Science Data

[DATA](#) [SUPPORT](#) [ABOUT](#) [Submit Data](#) [VALERIE](#)

**Search** ⓘ

Search phrase

**DATASETS 1 TO 9 OF 9**

Sort by

**SEARCH**

**SUMMARY**

Slide Map >

# Menu Options - Support



The screenshot shows the ESS-DIVE website interface. At the top left is the ESS-DIVE logo with the tagline "Deep Insight for Earth Science Data". To the right are navigation links for "DATA", "SUPPORT", and "ABOUT", along with a green "Submit Data" button and a user profile for "VALERIE". A dropdown menu is open under "SUPPORT", listing "CONTACT US", "NEW USER?", "DATA ACCESS HELP", "UPLOAD HELP", and "FAQ". The main content area displays "DATASETS 1 TO 9 OF 9" and a search bar. A filter sidebar on the left includes "Filter by:" with options for Identifier, Location, Creator, and Year. A dataset entry is visible, titled "A Databank of Antarctic Surface Temperature and Pressure Data (NDP-032)", with a description of its origin and a unique identifier.

**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT Submit Data VALERIE

Search Search phrase

Filter by:

- Identifier
- Location
- Creator
- Year

DATASETS 1 TO 9 OF 9

Sort by Most recent

Jones P; Limbert D (1989): **A Databank of Antarctic Surface Temperature and Pressure Data (NDP-032)**  
Carbon Dioxide Information Analysis Center (CDIAC), Ridge National Laboratory (ORNL), Oak Ridge, TN (United States); University of East Anglia, Norwich, United Kingdom  
ess-dive-c4bec7fac06eabf-20180424T085437278159.

CONTACT US  
NEW USER?  
DATA ACCESS HELP  
UPLOAD HELP  
FAQ



# Data Package - Create



A screenshot of the ESS-DIVE web interface for creating a new data package. The page has a teal header with the ESS-DIVE logo and navigation links for DATA, SUPPORT, and ABOUT. A green 'Submit Data' button and a user profile 'VALERIE' are also visible. The main content area shows a form for entering metadata, with a text field containing a placeholder ID. Below the form is a table with columns for Files, Size, Type, and Status. A row for 'Untitled dataset' is shown with a folder icon and a green '+ Add Files' button. A large green '+ Add Files' button is centered on the page. At the bottom, there is a sidebar with 'Overview' and 'People' sections, and a form for entering a 'Title'.



DATA

SUPPORT

ABOUT

Submit Data

VALERIE

Untitled dataset. null. ess-dive-aa5569abcf72fa2-20180425T160807210.

To submit a new data package or make major revisions to an existing data package

1. Add files
2. Enter the required \* fields in the sections below
3. Hit the submit button, which appears after the first metadata entry

Files	Size	Type	Status
▼  Untitled dataset			

Add files to start your dataset

Overview

Overview

People

Title \*

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


Citation fills out in real-time as metadata is entered.


General instructions about creating data packages.

Click button to start adding files to data package

# Data Package - Create




 **ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT [Submit Data](#)  VALERIE

Water tables in the tropics. null. ess-dive-aa5569abc72fa2-20180425T160807210.

To submit a new data package or make major revisions to an existing data package

1. Add files
2. Enter the required \* fields in the sections below
3. Hit the submit button, which appears after the first metadata entry

Files	Size	Type	Status
 Water tables in the tropics			<a href="#">+ Add Files</a>

**Overview \*** Overview

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

**Dates**

**Locations** **Existing DOI and Alternate Identifiers**  
DOI and alternate identifiers of the data package if it has been previously published elsewhere. Alternate identifiers provide pertinent information that can identify and locate the data set within your site's data management system.  
*Enter as many identifiers as needed below.*

**Methods**

**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.*

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Citation filled out in real-time as metadata is entered.

There are examples supplied for all fields

# Data Package - Create



**ESS-DIVE**  
Deep Insight for Earth Science Data

DATA SUPPORT ABOUT **Submit Data** VALERIE

**Overview** \*  
People  
Dates  
Locations  
Methods

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Choose how you wish your data to be shared and reused. Usage rights for the metadata will always be Creative Commons Public Domain.  
*Pick from one of the options.*

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**Project** \*  
Enter the name of the DOE project to associate with this data package. The project is cited as the publisher of this dataset.  
*If multiple projects were involved, enter the project that had the largest contribution to this data package.  
Search from the list or write in your own. Tab or click enter to add to the list below.*

NGEE

Next-Generation Ecosystem Experiments (NGEE) Tropics  
Next-Generation Ecosystem Experiments (NGEE) Arctic  
NASA Contribution to NGEE Tropics

*Search from the list or write in your own. Tab or click enter to add to the list below.*

Example: U.S. DOE > Office of Science > Biological and Environmental Research (BER)

**DOE Contracts**  
If applicable, list the numbers of any DOE contract under which the data in the package was funded. If the data were a result of a joint effort between two or more DOE Site/Facility Management Contractors, etc., additional DOE contract numbers may be entered.  
*Search for a DOE Contract from the list of Institutions or write in your own. Tab or click enter to add to the list below.*

Example: AC0205CH11231

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Click on the other section to fill out the rest of the metadata

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Click "Submit Data" when you are done editing.

Some fields have type ahead that we have prepopulated with likely entries. An example is project - show NGEE . This project list is from the program managers.

# Data Package - Logged in view

A screenshot of the ESS-DIVE web interface showing a data package page. The page includes a header with the ESS-DIVE logo, navigation links (DATA, SUPPORT, ABOUT), a "Submit Data" button, and a user profile for "VALERIE". The main content area displays the package title "Nowak R (2007): Nevada Desert Face Facility Soil Water Content (%Vol). Unknown." and a unique identifier. Below the title are buttons for "Copy Citation", "Edit", and "Publish". A table lists files in the dataset, including metadata and three Excel files. A "Download All" button is present at the top right of the table. Below the table is a "General" section with fields for Identifier, Alternate Identifier, and Abstract. Callout boxes with arrows point to the "Edit" button, the "Publish" button, the "Download All" button, and the "Download" buttons for individual files.

Home / Search / Metadata

Nowak R (2007): Nevada Desert Face Facility Soil Water Content (%Vol). Unknown. ess-dive-1e3c3b5aae5f948-20180425T222043441.

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Files in this dataset Package: ess-dive-a68efd51c9a333-20180425T222045098

Name	File type	Size	Download All
Metadata: eml_cdiac.ornl.gov_8080_xml_cdp_metadata_Lisa_Ols_en_FACE_ndff_soilmoisture.xml	EML v2.1.1	5 KB 13 views	Download
NDFF_TDR_01_02.xls	More info Microsoft Excel	161 KB	Download
NDFF_TDR_02_03.xls	More info Microsoft Excel	135 KB	Download
NDFF_TDR_99_00.xls	More info Microsoft Excel	348 KB	Download

Show 5 more items in this data set

General

Identifier: ess-dive-ff6821c45c9ac64-20180425T143651624472

Alternate Identifier: cdiac:NDFF Soil Water Content

Abstract: Method: 16 Dynamax TDR probes were installed in each ring in two microsite locations: a pair of 0.2- and 0.5-cm probes was installed under the canopy of four randomly selected Larrea plants in each plot, with another pair installed nearby in the interspace between perennial plants. Initially, 44% of the 0.5-m probes were not fully inserted into the soil because rocks in the soil impeded installation.

Click "Edit" button to make further changes to the data package.

Click "Publish" to request that this data package be shared publicly

Download all files together in a ZIP file

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# Login Page



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# Data Package - Public view



DATA

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Paul Hanson, Jeffrey Riggs, C Dorrance, William Nettles, and Les Hook (2017): SPRUCE S1 Bog Environmental Monitoring Data: 2010-2016. SPRUCE doi:10.3334/CDIAC/spruce.001

Copy Citation

Data object identifier (DOI)

Files in this dataset Package: ess-dive-f38f87b4fcf1bce-20180330T150358358173

Name	File type	Size	Downloads	Login to Download
Metadata: SPRUCE S1 Bog Environmental Monitoring Data: 2010-2016.xml	EML v2.1.1	10 KB	19 views	Download
em_data_dictionary_public_20170620.xlsx	<a href="#">More info</a> Microsoft Excel OpenXML	23 KB	2 downloads	Download
SPRUCE_EM_DATA_2010_2016_20170620.pdf	<a href="#">More info</a> PDF	1 MB	21 downloads	Download
EM123_Combined_public_data_2010_20170620.csv	<a href="#">More info</a> text/csv	6 MB	2 downloads	Download

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Metadata in standard format and uploaded data files available for download.

Scroll down the page to see the data package metadata: Title, Abstract, Project Name, DOE Contract Numbers etc

General

Identifier