Lightning Talks Introducing Data Repositories and (Meta)data Aggregators

*presenting*: Arctic Data Center, DataONE, Environmental Data Initiative, ESIP, GBIF, iDigBio, NEON

#datahelpdesk
Ecological Society of America 2019 ESA USSEE
Career Fair Center in the Exhibit Hall https://esa.org/louisville/career-fair/
Wednesday 14 August 330-430 PM
The Arctic Data Center
https://arcticdata.io

- Data Archive
- Portal for data discovery
- Tools for data and metadata submission
- Support services
- Training and Outreach
- Data Rescue

- 5,800 DATA SETS
- 1,500 CREATORS
- 725K DATA FILES
- 14,000 USERS
- 34 TB DATA STORAGE
- 990K+ FILE DOWNLOADS
- Cumulative Data Objects
  - Date Uploaded
  - 720,906 data files
  - 210,551 image/jpg
  - Application file 76,602
  - image/png 110,151
  - Other 129,871

@arcticdatactr
Enabling Access and Use of Data About Life and the Environment

Products and Services include:
- Faceted Data Search and Discovery
- Provenance Capture and Display
- Data Replication
- Data Science Training and Resources
- Metadata Quality Reporting
- Data Level Metrics
- Integrated DataONE Community
Environmental Data Initiative

EDI Activities:
Maintain a data archive

Train research groups in data curation and mgt.

Collaborate/leverage other work in environmental data management

Data Contributor
1. Contact, plan
2. Assemble, organize
3. Prepare metadata
4. Upload
5. Access citation, DOI, published data

A. Long-term, secure storage
B. Discovery, access, cited, revisions
C. Automated data checking
D. Conforms to industry standards
E. Workflows for data access & use
F. Feedback to improve local practice

https://environmentaldatainitiative.org/
Earth Science Information Partners

120+ Partner Orgs
1000 Active Participants
30+ Working Groups

DISCOVER
Find people and tools to make your data findable, accessible, interoperable, and reusable.

COLLABORATE
Join-in or create a new collaboration area around your Earth science data challenges.

INNOVATE
Utilize small-grant funding to build or expand Earth data technologies.

NETWORK
Extend your network. Build connections across federal agencies, the private sector, and academia.

https://esipfed.org/
Free and open access to information about all types of life on Earth

- Which species or organism?
- Where and when was it found?
- What is the evidence?

International network and research infrastructure that provides free and open access to biodiversity data

Funded by participating national governments that have signed voluntary memorandum of understanding

GBIF Secretariat is ICSU-WDS CoreTrustSeal certified

20+ GBIF network members serve as trusted data hosting centres, serving national and thematic data and offering

- Consistent maintenance and administration of GBIF IPT
- Demonstrated track record of hosting data
- Capacity to provide help desk support

www.gbif.org
Advancing the Digitization of Biological Collections
iDigBio Hub and Thematic (Museum) Collection Networks

Digitization
Workflows & Protocols
Dissemination

Research Use
Cyberinfrastructure
Tool collaboration
Portal development
ENM workshop
Research focus
Data quality
APIs

Training
Biodiversity informatics
Data skills and literacy
Collections software
Imaging
Project Management

Education Outreach
Citizen Science
K-12 materials
Undergraduate
Fossil Clubs
Mentor teachers

Methods
Workshops
Webinars
Symposia
Conferences
Working Groups
Short Courses
Adobe Connect
Listservs
Publications
Social Media @idigbio

(total: 119,768,942)
National Ecological Observatory Network

Open data to understand our ecosystems

81 FIELD SITES
47 terrestrial, 34 aquatic

180 DATA PRODUCTS

100K SAMPLES/SPECIMENS Per year

Automated instruments
Micrometeorology (including C/H2O/energy fluxes), surface and groundwater, and soil

Observational sampling
Aquatic & terrestrial organisms, soils & sediments, biogeochemistry, geomorphology, etc.

Airborne remote sensing
Camera, hyperspectral, LiDAR imagery

For access to data, samples, field protocols, and assignable assets, visit https://neonscience.org
<table>
<thead>
<tr>
<th>Primary Activity</th>
<th>Primary Research Domain</th>
<th>Geographic Domain</th>
<th>Ask us about...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support networking for the data sci community</td>
<td>Earth, environmental science</td>
<td>global</td>
<td>Is there a collaboration group on [my topic]?</td>
</tr>
<tr>
<td>Aggregate search/delivery across many repositories</td>
<td>Earth, environmental, social science</td>
<td>global</td>
<td>How can [my favorite repository] become a node</td>
</tr>
<tr>
<td>Archive/deliver data</td>
<td>Any</td>
<td>Arctic</td>
<td>NSF requirements, how to submit data</td>
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<tr>
<td>Archive/deliver data</td>
<td>Environmental science, ecology</td>
<td>global</td>
<td>LTER; archiving for field stations, researchers, labs</td>
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<tr>
<td>Distributed network &amp; global data infrastructure</td>
<td>biodiversity</td>
<td>global</td>
<td>Publishing records, citing and tracking data uses</td>
</tr>
<tr>
<td>Aggregate digitized museum specimen data</td>
<td>vouchered specimen collections, biodiversity</td>
<td>global</td>
<td>How to digitize, query data; foster data use</td>
</tr>
<tr>
<td>Monitoring network</td>
<td>Environmental science</td>
<td>United States</td>
<td>How to download NEON data</td>
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# ESAUSSEE Data Help Desk

*Find us (in the exhibit hall)*

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