

## Member Node Description: Montana IoE Data Repository

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Version 1.0    2/19/2014    Seth Mason

### General

<b>Name of resource:</b>	Montana IoE Data Repository
<b>URL(s):</b>	<a href="https://data.rcg.montana.edu/catalog">https://data.rcg.montana.edu/catalog</a>
<b>Institutional affiliation(s):</b>	Montana State University, Montana University System Institute on Ecosystems (IoE), University of Montana, Montana Tech, Montana EPSCoR
<b>Primary geographic location:</b>	State of Montana and Intermountain West
<b>Project Director &amp; contact info:</b>	Todd Kipfer, <a href="mailto:tkipfer@montana.edu">tkipfer@montana.edu</a>
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<b>Age of resource:</b>	2014
<b>Funding support:</b>	NSF, Montana University System
<b>Proposed Unique Identifier:</b>	urn:node:IOE

### Content

**Content description/collection policy (1 paragraph, domain and spatial/temporal coverage, uniqueness of content, exclusions, as applicable):**

The Montana Institute on Ecosystems (IoE) Data Repository archives and manages ecological research collections produced by investigators within the Montana University System. The Montana IoE Data Repository is also the primary archive for data products generated by Montana EPSCoR projects.

**Types of data (complex objects, text, image, video, audio, other):**

Delimited text files, images, and GIS data layers.

**Data and metadata availability (rights, licensing, restrictions):**

Citation and acknowledgement are required for use of data. No other restrictions currently in place.

**Option for embargo (yes/no, duration):**

None

**Size of holdings (number and size of datasets, mean and median granules (files) per dataset):**

NA. Usage statistics are not yet available. See below.

**Please describe recent usage statistics, if known, including information on annual data product downloads, annual number of users, annual number of data products used in publications:**

Usage statistics are not yet available. We anticipate light use during the first few years of operation as researchers become accustomed to using the repository. Preliminary usage statistics will be available at the close of 2014.

## User interactions

### **How does a user contribute data? (what can be deposited, how are data prepared, are specific software required, documentation/support available)**

Researchers and data managers submit and manage data to the Montana IoE Data Repository through the IoE Data Gateway, a web-application based on the MetacatUI software produced by NCEAS. Other software applications that support use of the DataONE API (e.g. Morpho) may also be used to archive and manage data and metadata in the repository; however, user support is limited to the IoE Data Gateway.

### **How does a user acquire / access data?**

Users primarily obtain data from the Montana IoE Data Repository through the IoE Data Gateway web application ([data.rcg.montana.edu/gateway](http://data.rcg.montana.edu/gateway)). Data may also be accessed with a software applications or client libraries that supports the DataONE API (e.g. Morpho, Kepler, ONER, etc.).

### **What user support services are available (both for depositing and accessing/using data)?**

Staff from Montana IoE and the Montana State University Research Computing Group (RCG) provide user training and support to users within the Montana University System (MUS).

### **How does the resource curate data at the time of deposit?**

The IoE Data Gateway web application ensures a minimum metadata set is included with any archived data. HTML forms require users to describe data in a standardized manner. The web application formats metadata and data using the EML standard prior to archival.

## Technical characteristics and policies

### **Software platform description, incl. data search and access API(s):**

The Montana IoE Data Repository is a Metacat instance. Therefore, the full suite of DataONE APIs is supported for accessing and interacting with archived data and metadata objects.

### **Service reliability (including recent uptime statistics, frequency of hardware refresh, if known):**

Not yet available. Preliminary usage statistics will be available at the end of 2014.

### **Preservation reliability (including replication/backup, integrity checks, format migration, disaster planning):**

All data objects archived in the Montana IoE Data Repository are protected from hardware failure through use of Montana State University's mirrored GlusterFS file system.

### **User authentication technology (incl. level of create/modify/delete access by users):**

User authentication is provided by a network of LDAP servers at the various institutions within the MUS. All users within the MUS are provided write privileges to create data collections the Montana IoE Data Repository. A user may only modify or delete data objects that he or she created.

### **Data identifier system and data citation policy, if available:**

The Montana IoE Data Repository supports Digital Object Identifiers (DOIs) for permanent data publication.

### **Metadata standards (including provenance):**

Use of a Metacat server allows for archival using multiple XML-based metadata standards. However, the workflows supported by the IoE Data Gateway restrict users to EML only. No plans currently exist for support of metadata standards other than EML.

## Capacity/services to DataONE

At what functional tier will you initially be operating? (see <http://bit.ly/MNFactSheet> for definitions)

Tier 1: Read only, public content

Tier 2: Read only with access control

Tier 3: Read/write using client tools

Tier 4: Able to operate as a replication target

If you can host data from other member nodes, what storage capacity is available?

None

Can you provide computing capacity to the broader network? If so, please describe.

Unfortunately, not at this time.

## Other Services

What other services or resources (such as expertise, software development capacity, educational/training resources, or software tools) can be provided of benefit to the broader network?

We are unable to provide services or resources to the broader network due to budget and staffing constraints.