Using DSpace as a Disciplinary Data Repository

Ryan Scherle

National Evolutionary Synthesis Center

NESCent

National Evolutionary Synthesis Center

Missing link found? Scientists unveil fossil of 47 million-year-old primate, Darwinius masillae

BY SAMANTHA STRONG AND RICH SCHAPIRO
DAILY NEWS WRITERS

Updated Tuesday, May 19th 2009, 12:57 PM

Tama/Getty

The 47 million year old fossilized remains of a primate is seen at the American Museum of Natural History in New York.

NESCent's Mission

Support synthetic research

Develop informatics tools

Increase public understanding of science

Promote a culture of data sharing

A Repository of Data

Underlying Journal Articles

Dryad Partners

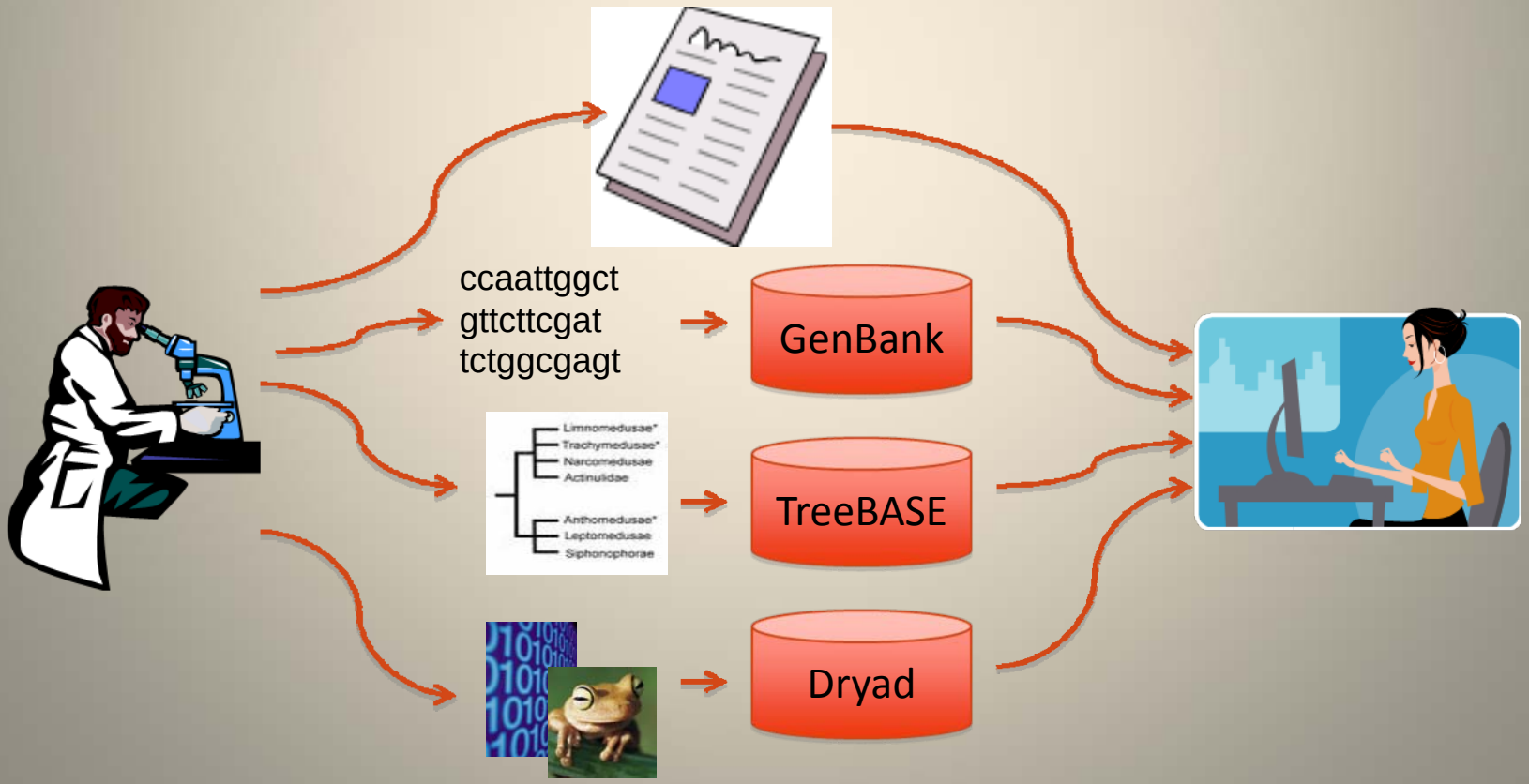
Databases in Biology

GenBank
MorphBank
Morphobank
PaleoDB
Phylota
Protein Data Bank
TreeBASE
Tree of Life

AntWeb
FishBase
FlyBase
HerpNet
MaNIS
ORNIS
WormBase
ZFIN

The Goal

Store all data underlying publications in evolutionary biology, ecology, and related disciplines, *at the time of publication.*



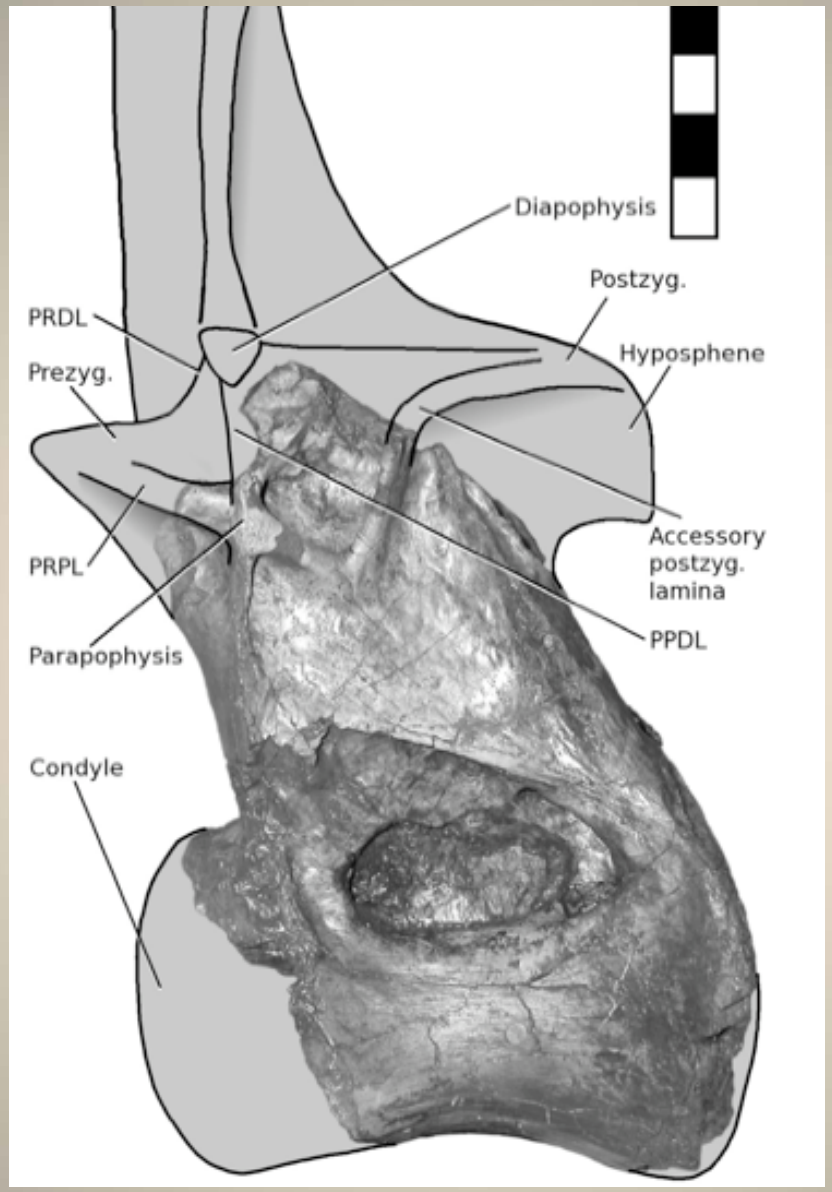
(Riju et al., 2007)
hdl:10255/dryad.158

Compiler	Length	Width	Thickness	how estimation was achieved	Mass (kg)	Biovolume (mm^3)
A. Boyer	30000.00			mass given	190000	1.90E+11
S. Finnegan	300.00	150.00	150.00	depth=width (thorax only)		6.75E+06
A. Boyer	16000.00					1.83E+10
S. Truebe	600.00	150.00	153.00	based on Crassostrea gigantissima in Kirby, M.X. 2000. Paleoecological Differences Between Tertiary and Quaternary Crassostrea Oysters, as revealed by Stable Isotope Sclerochronology. Palaios 15(2): 132-141.		1.38E+07
S. Truebe	345.00	213.00		depth=width (thorax only)	7.83	7.83E+06
A. Boyer	8200.00			mass given	13607	1.36E+10
J. Payne	232.00		900.00	*		1.25E+07
S. Truebe	109.40	126.70	26.30	depth=width (thorax only)	0.36	3.65E+05

(Payne et al., 2008)
hdl:10255/dryad.222

genus	species	RW1	RW2	RW3	RW4
Abramites	hypselonotus	-0.0405	6.23E-02	-6.26E-02	2.01E-02
Anostomoides	laticeps	-0.0934	1.19E-01	-2.85E-02	-3.03E-02
Anostomus	anostomus	-0.2050	2.15E-03	1.22E-02	6.69E-02
Anostomus	intermedius	-0.1938	2.91E-02	6.56E-03	4.26E-02
Anostomus	plicatus	-0.1986	7.53E-03	-1.97E-02	3.45E-02
Anostomus	ternetzi	-0.2047	-1.03E-02	1.49E-02	7.95E-02
Caenotropus	labyrinthicus	0.0440	-4.76E-02	4.79E-02	-4.63E-03
Caenotropus	maculosus	0.0391	-6.06E-02	5.20E-02	-8.23E-03
Caenotropus	mestomorgmatos	0.0397	-3.74E-02	5.04E-02	-1.42E-02
Chilodus	gracilis	-0.0298	-2.86E-03	7.09E-02	1.33E-02
Chilodus	punctatus	0.0008	1.61E-02	3.33E-02	-3.92E-03
Gnathodolus	bidens	-0.1628	3.81E-02	-4.65E-02	-3.90E-02
Laemolyta	fernandezi	-0.1396	2.29E-02	1.26E-02	1.26E-02
Laemolyta	garmani	-0.1437	1.68E-03	3.83E-02	4.21E-02
Laemolyta	orinocensis	-0.1283	2.37E-02	1.24E-02	1.08E-02
Laemolyta	proxima	-0.1258	1.44E-02	1.56E-02	2.11E-02
Laemolyta	taeniata	-0.1344	-7.30E-04	2.73E-02	3.31E-02
Leporellus	pictus	-0.0151	-6.82E-02	1.76E-02	-6.25E-03
Leporellus	vittatus	-0.0036	-8.42E-02	8.94E-03	-6.01E-02
Leporinus	cf. agassizi	-0.0372	-1.02E-02	2.52E-03	-1.59E-02

(Sidlauskas 2007)
hdl:10255/dryad.23



(Taylor and Naish 2007)
hdl:10255/dryad.31

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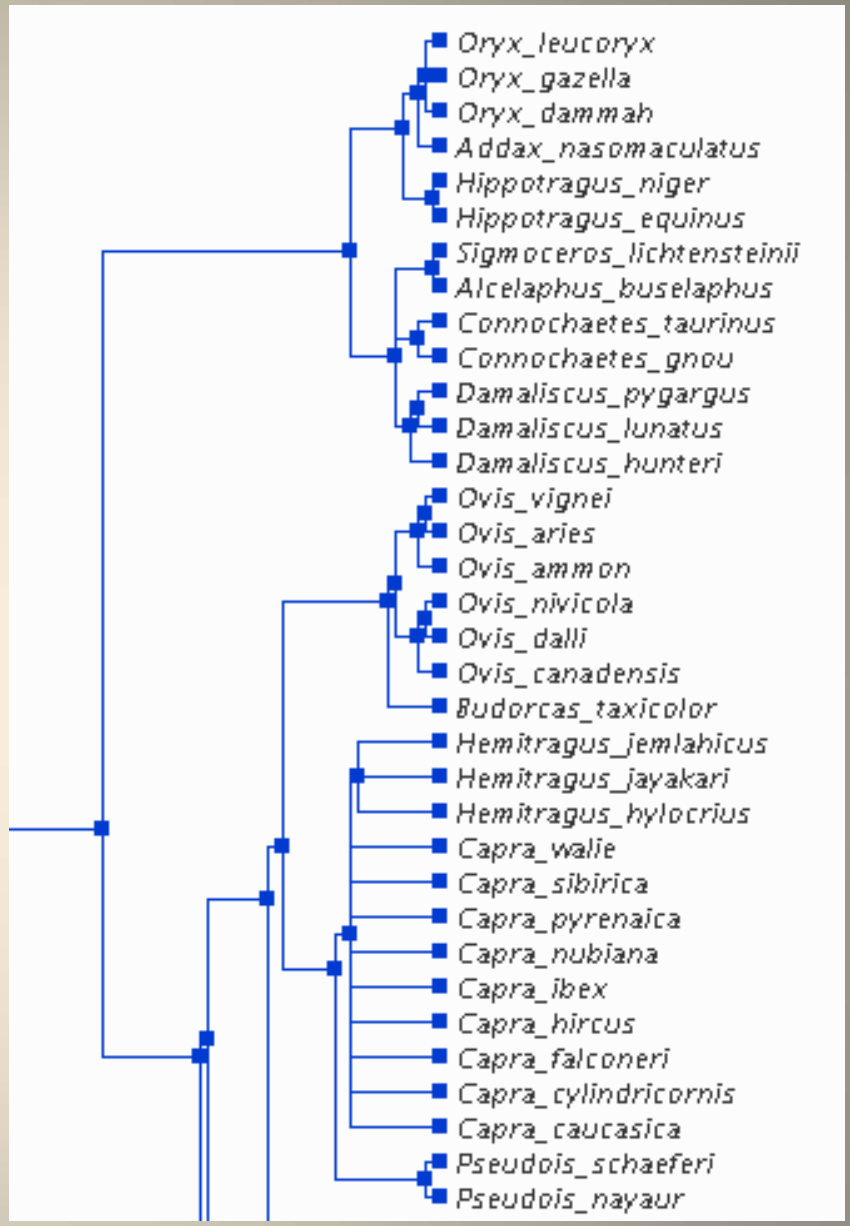


(Price et al., 2004)
hdl:10255/dryad.82

Joint Data Archiving Policy

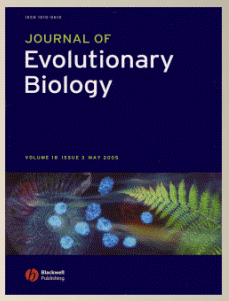
Deposit at time of publication

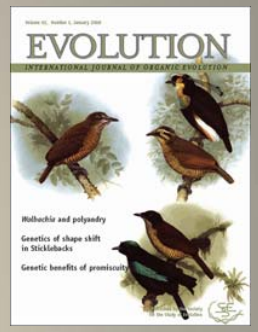
Repeatability

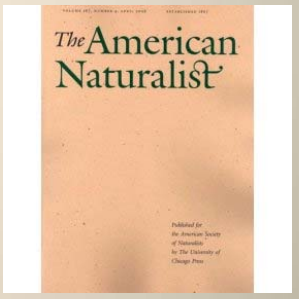
Embargo

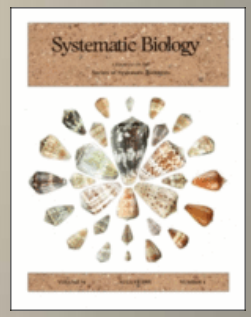
Exceptions

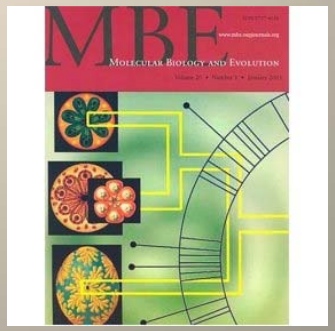
Coordination











Why DSpace?

Aren't data objects usually stored in Fedora?

User registration

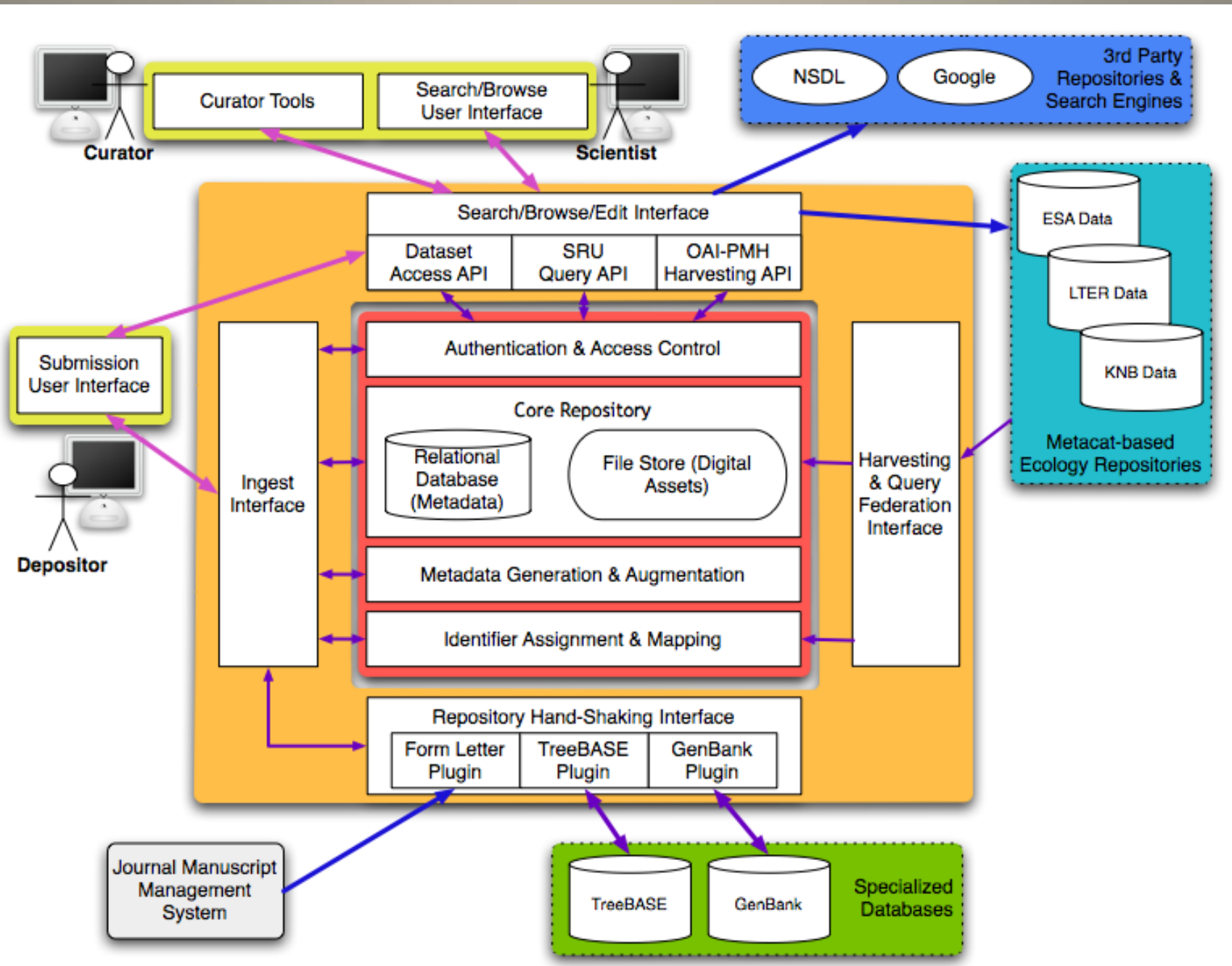
Submission system

Administrative interface

Search/browse system

Manakin

Speed of initial implementation


Curator
Curator Tools
Search/Browse User Interface
Scientist
NSDL
Google
3rd Party Repositories & Search Engines
Search/Browse/Edit Interface
Dataset Access API
SRU Query API
OAI-PMH Harvesting API
Submission User Interface
Depositor
Ingest Interface
Authentication & Access Control
Core Repository
Relational Database (Metadata)
File Store (Digital Assets)
Metadata Generation & Augmentation
Identifier Assignment & Mapping
Harvesting & Query Federation Interface
ESA Data
LTER Data
KNB Data
Metacat-based Ecology Repositories
Repository Hand-Shaking Interface
Form Letter Plugin
TreeBASE Plugin
GenBank Plugin
Journal Manuscript Management System
TreeBASE
GenBank
Specialized Databases

Disciplinary repositories

Don’t serve the needs of a single institution

Lack a formal organization

- No formal structure
- The repository is the “organization”
- Must locate pockets of dedicated users

Must integrate with other community resources

Data repositories

Customized metadata fields are required

- Data often lacks complete metadata
- Publications can provide context

Data comes in a wide variety of formats

Connections to other data are valuable

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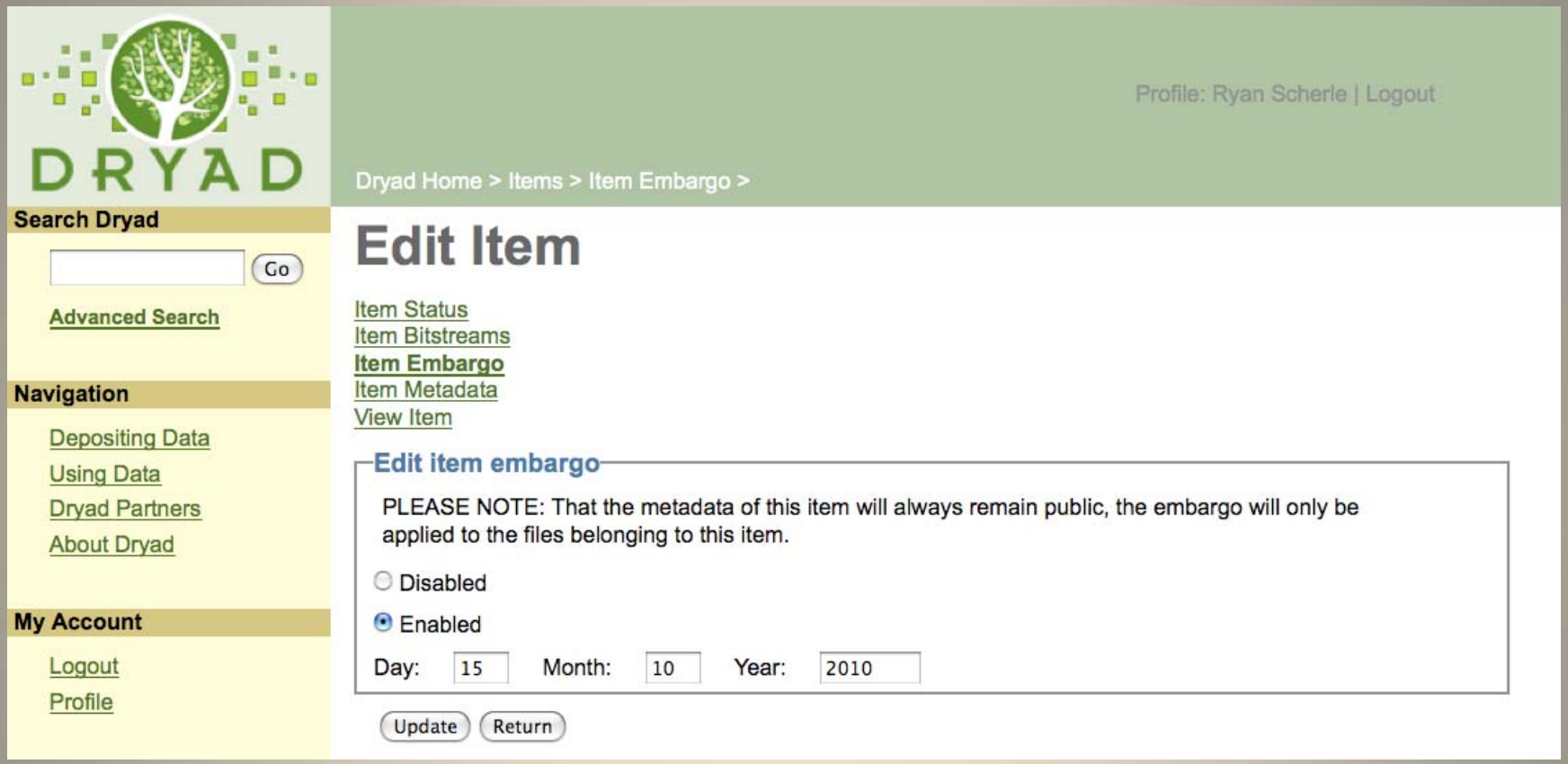
Edit this item

Testing for Unequal Rates of Morphological Diversification in the Absence of a Detailed Phylogeny: A Case Study From Characiform Fishes

Show full item record

Dryad Identifier	http://dx.doi.org/10.1111/j.1558-5646.2007.00022.x http://hdl.handle.net/10255/dryad.20
Authors	Sidlauskas, Brian
Date Available	2007-12-17T20:28:42Z
Date Issued	2007-02
Contains Data Sets	http://hdl.handle.net/10255/dryad.23 http://hdl.handle.net/10255/dryad.57 http://hdl.handle.net/10255/dryad.58
Scientific Names	Curimatoidea Anostomoidea
Full Citation	Brian Sidlauskas (2007). Testing for Unequal Rates of Morphological Diversification in the Absence of a Detailed Phylogeny: A Case Study From Characiform Fishes. Evolution 61 (2), 299–316. doi:10.1111/j.1558-5646.2007.00022.x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PLEASE NOTE: That the metadata of this item will always remain public, the embargo will only be applied to the files belonging to this item.
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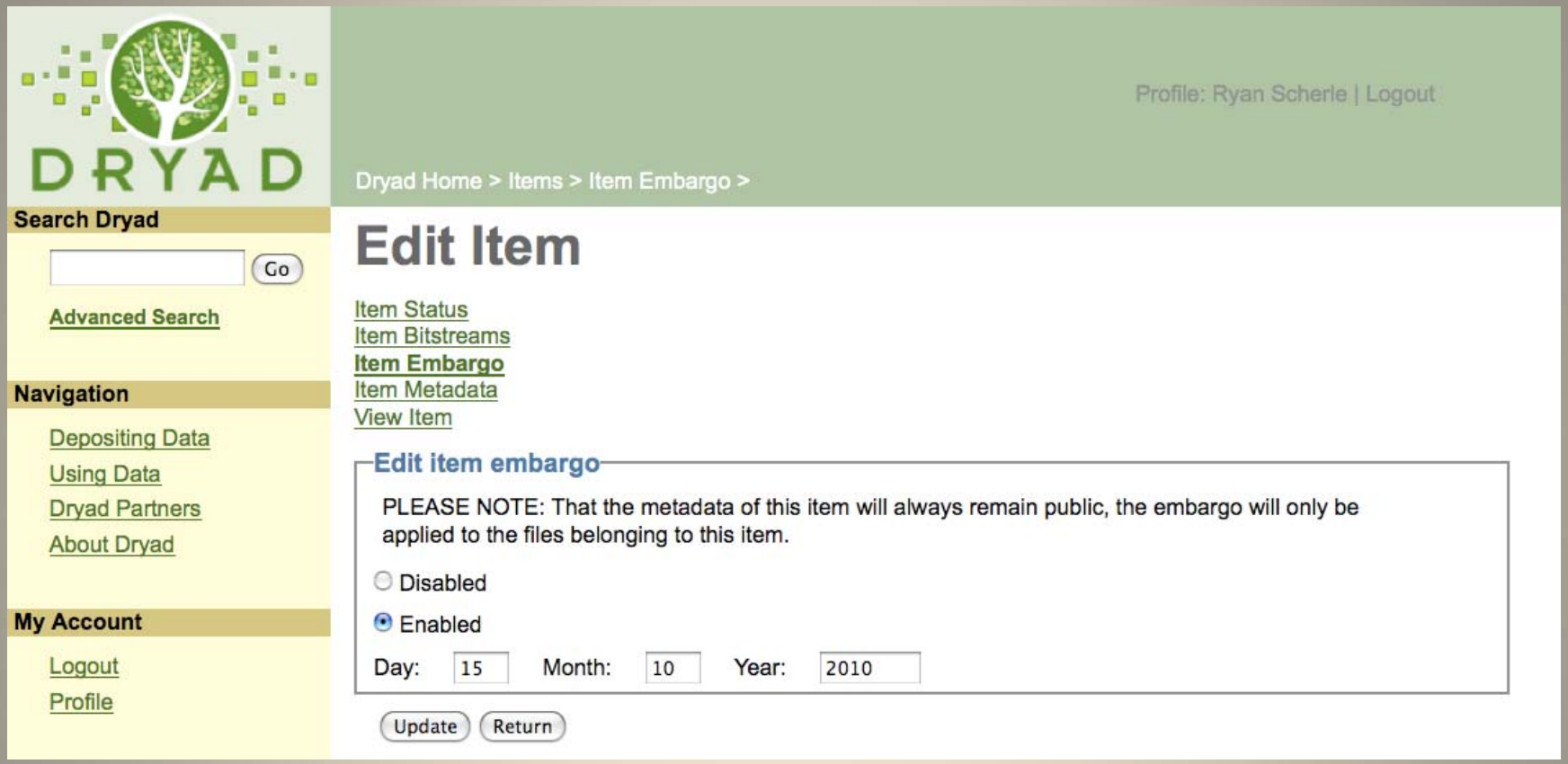
Day: 15 Month: 10 Year: 2010
Update
Return


DRYAD
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Dryad Home > Items > Item Embargo >
Search Dryad
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Edit Item
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Day: 15 Month: 10 Year: 2010
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Return


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Testing for Unequal Rates of Morphological Diversification in the Absence of a Detailed Phylogeny: A Case Study From Characiform Fishes
Sidlauskas, Brian (Blackwell Publishing, *2007-02*)

- **Relative warps**
- **Landmark Consensuses**
- **Morphospace specimens**

Testing Phylogenetic Methods with Tree Congruence: Phylogenetic Analysis of Polymorphic Morphological Characters in Phrynosomatid Lizards
Wiens, John J. (Taylor & Francis, *1998-09-01*)

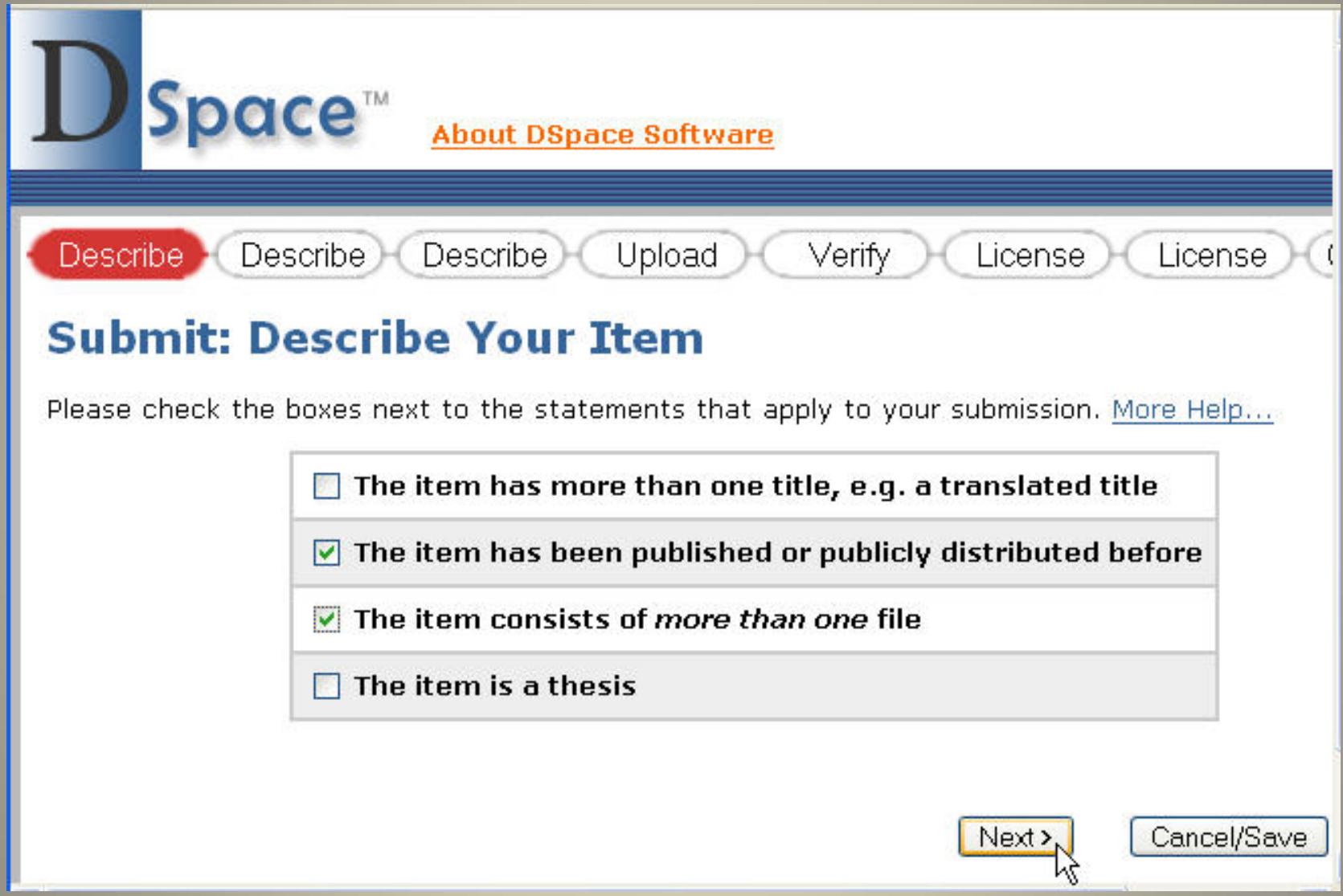
- **Wiens 40 Taxon Matrix**
- **Wiens Tree I Matrix**
- **Wiens Tree II Matrix**
- **Wiens Tree III Matrix**

The Beagle collections of Darwin's Finches (Geospizinae)
Sulloway, F. J. (*1982*)

- **Morphological measurements of Galapagos finches**

Mining of expressed sequence tag libraries of cacao for microsatellite markes using five computational tools
Riju, A.; Rajesh, M.K; Chandraseker, A.; Arunachalam, V. (*2008-09-18*)

- **Riju Data Matrix**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Describe
Upload
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The item has more than one title, e.g. a translated title
The item has been published or publicly distributed before
The item consists of more than one file
The item is a thesis
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Dryad Submission

Press a button to edit the description of your publication, add new datasets, or edit existing datasets. You may modify all descriptions until this submission is finalized.

1. Describe publication:

Diversity, dilemmas and monopolies of niche construction, David Krakauer, Douglas H Erwin, The American Naturalist.

Edit publication description

2. Add and describe datasets:

Add dataset

3. Finalize submission:

When you have added all datasets for this publication, and confirmed that all descriptions are correct, press the button below to publish your datasets in Dryad. Once a dataset is published, it will be available for other researchers to view.

Finalize and publish datasets

Publication:

A geometry of regulatory scaling,Ken Cheng,Stephen J. Simpson,The American Naturalist

Data file*:

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Title*:

Enter a short, descriptive title for this dataset. The title will help to distinguish this dataset from others associated with the same publication. For example:

Morphological measurements of Galapagos finches
Species diversity in coastal North Carolina

ReadMe file:

Browse...

Authors:

Ken Cheng
Stephen J. Simpson

Add

First name + initial

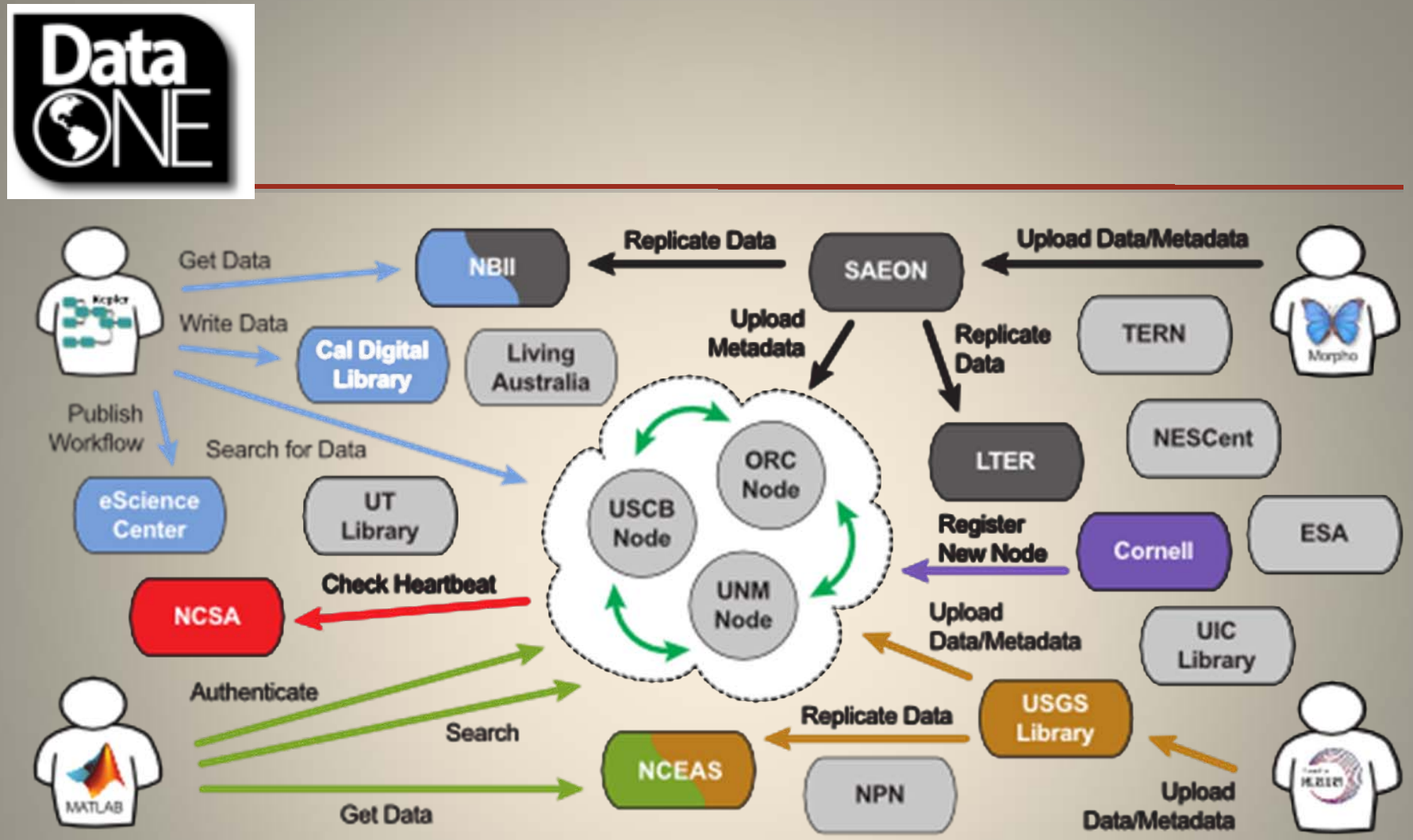
Last name,*e.g. Smith*

Embargo:

No embargo

What's next?

- OAI harvesting
- Versioning
- Authority control
- Ontology integration
- Curation interface
- Faceted search
- Replication services
- Tagging, annotation
- Integration with more journals
- Integration with partner repositories
- More submission enhancements
- Data-specific analysis tools


Data ONE
Get Data
Write Data
Publish Workflow
Search for Data
Authenticate
Search
Get Data
Check Heartbeat
Replicate Data
Upload Data/Metadata
Upload Metadata
Replicate Data
Register New Node
Upload Data/Metadata
Replicate Data
Upload Data/Metadata
NBII
SAEON
Cal Digital Library
Living Australia
TERN
LTER
NESCent
eScience Center
UT Library
NCSA
ORC Node
USCB Node
UNM Node
Cornell
ESA
UIC Library
USGS Library
NCEAS
NPN
MATLAB
Morpho

To learn more…

Repository: http://datadryad.org

Project info: http://datadryad.org/wiki

Source code: http://dryad.googlecode.com