

openVertebrate (oVert) Thematic Collection Network

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University of Florida

iDigBio Annual Summit
University of Florida
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bit.ly/oVert_iDigBio

#oVertTCN





openVertebrate Thematic Collection Network

\$2.5M from NSF's *Advancing Digitization of Biodiversity Collections* program

18 funded institutions, including 16 museums and 6 imaging centers



2017–2021

CT-scan >20,000 fluid-preserved vertebrate specimens

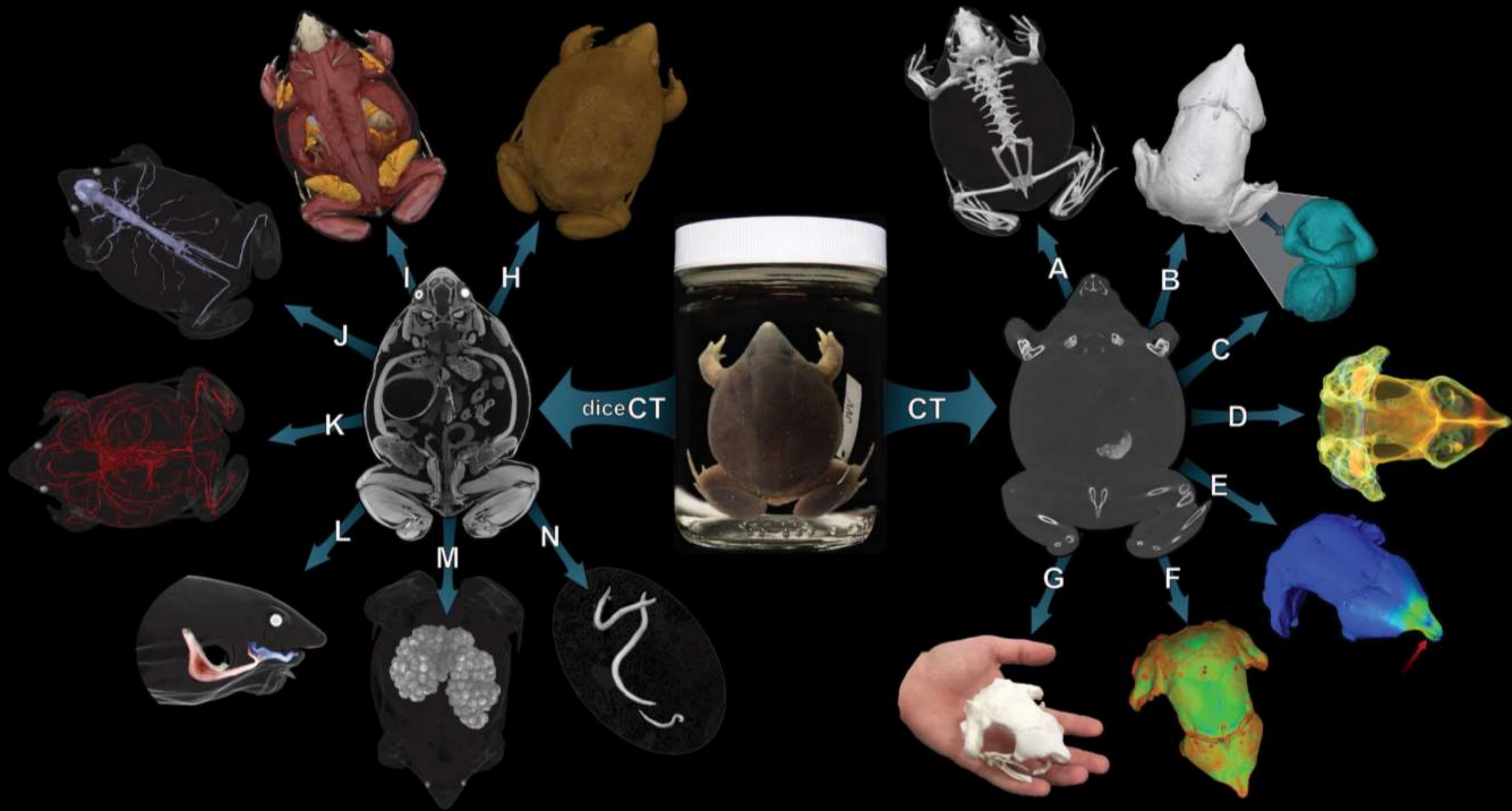
Scan >80% extant genera; “soft tissue” scan >60% extant families

Make both raw and processed data freely available on-line

Fall 2018

First PEN funded: oMEGA, led by Leif Tapanila at Idaho State Uni

Surface scans of individual bones of giant vertebrate skeletons



overt

Data deposited in MorphoSource

- image stacks (.zip of .TIFF)

- 3D mesh files (.stl)

Download or view in browser

Year 1:

MorphoSource/iDigBio linkages
scanned >5,000 fluid specimens

>2,000 genera of ~500 families

~2,000 media files of 1,100

specimens on MorphoSource

viewed >16,000 times

>700 downloads

Project: Frog Diversity

BACK

Members

David Blackburn, Trevor McCabe, Daniel Paluh, Maria Passarotti, Amber Singh, Edward Stanley, Olivia Trumble

Data

109 published media
173 specimen with published media

More Information

www.blackburnlab.org

About the project

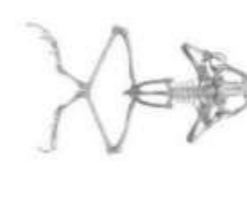
The Blackburn Lab at the University of Florida's Florida Museum of Natural History is assembling a collection of CT scan data representing all extant families of frogs. This comparative dataset provides a library of anuran skeletons diversity that can be used in studies of diversity, evolution, comparative morphology, and paleontology.

173 Project Specimens

Group by: [Specimen Number](#) | [Family](#) | [Genus](#) | [Species](#)



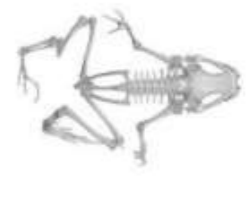
Allophrynidae
[2 Specimens](#)



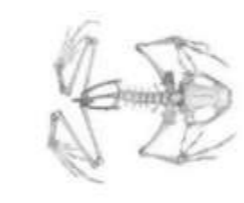
Alsodidae
[2 Specimens](#)



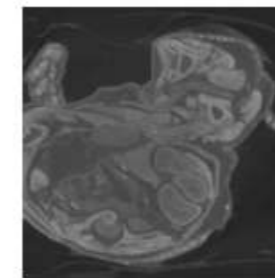
Alytidae
[2 Specimens](#)



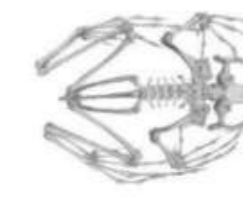
Aromobatidae
[1 Specimen](#)



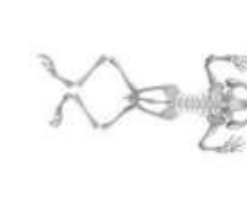
Arthroleptidae
[8 Specimens](#)



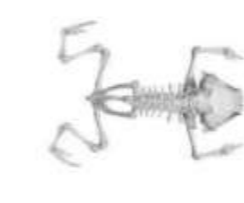
Ascaphidae
[1 Specimen](#)



Batrachylidae
[3 Specimens](#)



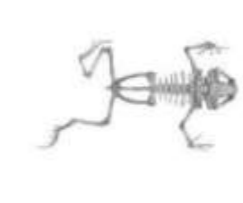
Bombinatoridae
[2 Specimens](#)



Brachycephalidae
[10 Specimens](#)



Brevicipitidae
[6 Specimens](#)



Bufonidae
[16 Specimens](#)



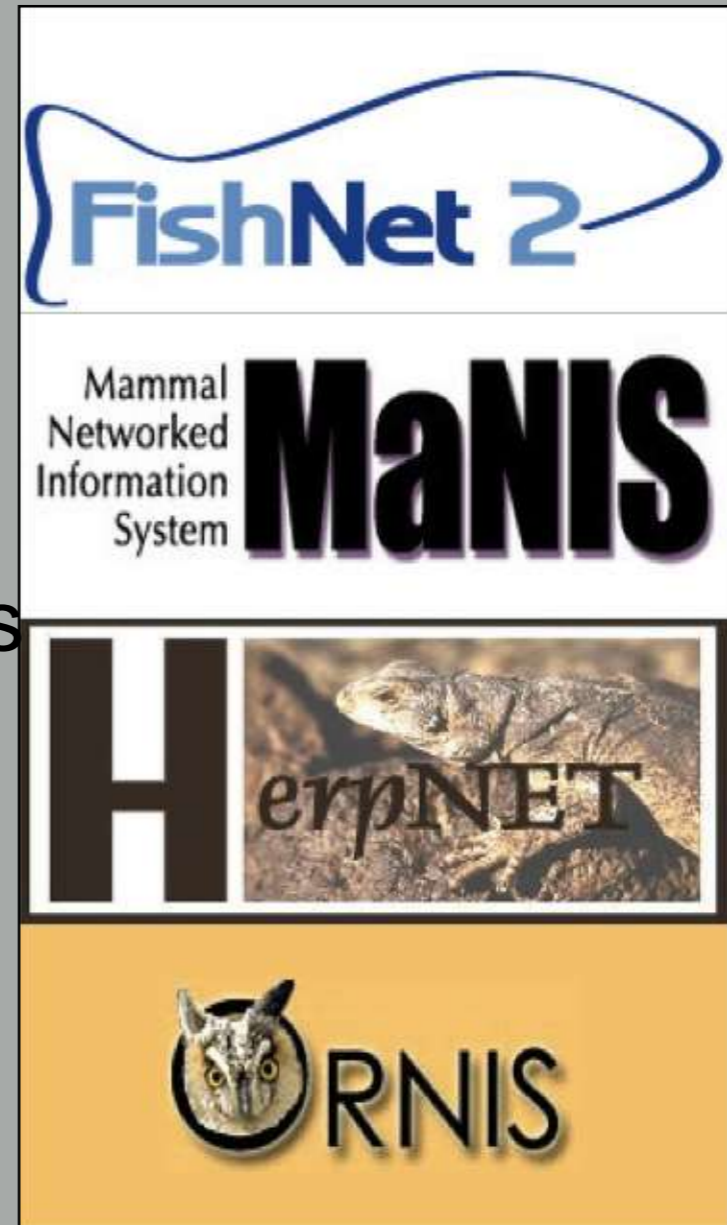
Calyptocephalellidae
[1 Specimen](#)

oVert

Builds on previous collection digitization efforts

In US, most scientific collections of vertebrates are digitized

Digital inventory allows oVert to (1) discover specimens and (2) prioritize particular specimens



overt

Builds on previous collection digitization efforts



UF-Herp-12345

MorphoSource sends request



iDigBio
Application
Program Interface
(API)



iDigBio sends metadata

Darwin Core
structured metadata

referenceID
occurrenceID
locality
collectionDate
etc.



Getting information on media files back to collections



UF-Herp-12345

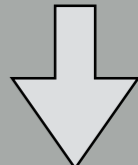
for each collection
(i.e., UF
Herpetology)



MorphoSource RSS Feed
(via referenceID)
containing
1) Audobon Core metadata
2) usage statistics



add Audobon Core
to IPT

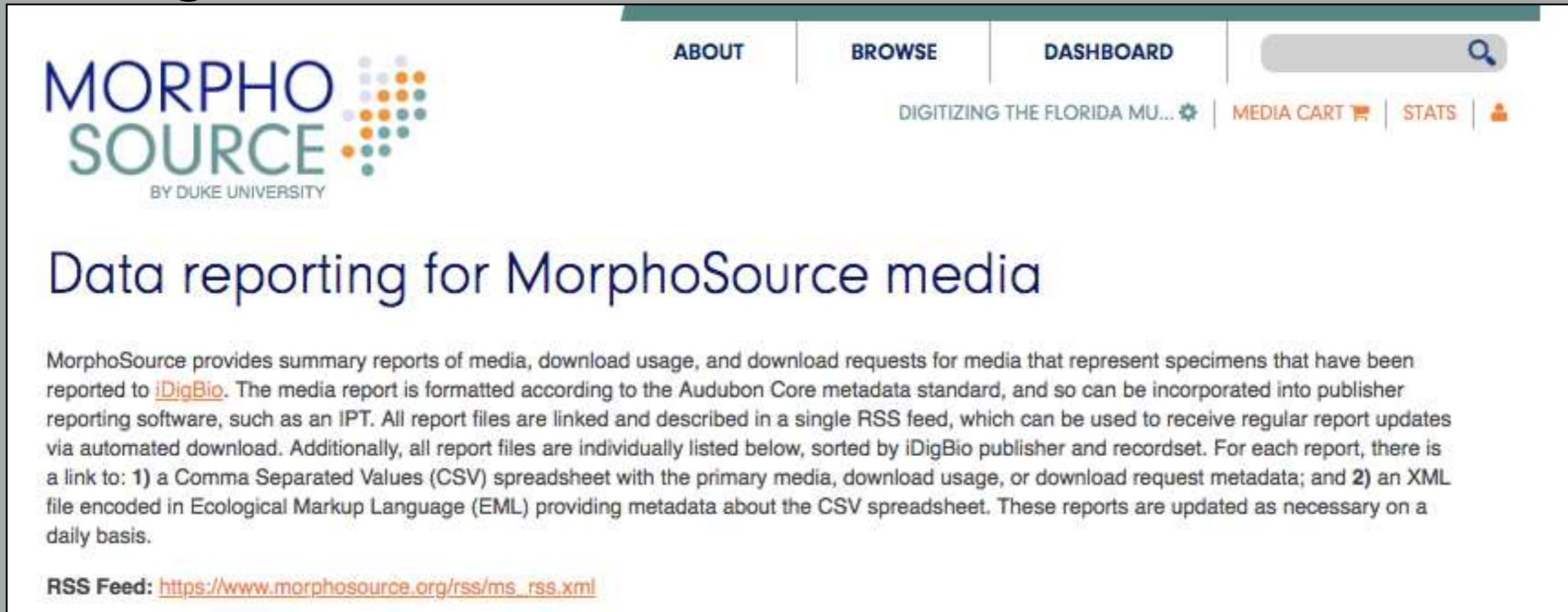


Darwin Core
structured metadata

referenceID
occurrenceID
locality
collectionDate
etc.



Getting information on media files back to collections



The screenshot shows the MorphoSource website interface. At the top left is the MorphoSource logo with the text "BY DUKE UNIVERSITY". To the right are navigation links: "ABOUT", "BROWSE", and "DASHBOARD". Further right is a search bar and utility links: "DIGITIZING THE FLORIDA MU...", "MEDIA CART", "STATS", and a user icon. The main heading is "Data reporting for MorphoSource media". Below this is a paragraph explaining that MorphoSource provides summary reports of media, download usage, and download requests for media that represent specimens reported to iDigBio. It mentions that reports are formatted according to the Audubon Core metadata standard and can be incorporated into publisher reporting software like IPT. It also states that reports are linked and described in a single RSS feed, with individual report files listed below, sorted by iDigBio publisher and recordset. For each report, there are links to a CSV spreadsheet and an XML file encoded in Ecological Markup Language (EML). At the bottom of the text is an RSS feed link: https://www.morphosource.org/rss/ms_rss.xml.

Berkeley Natural History Museums IPT (552a0e1a-4152-43ae-bad6-9314b4234536)

Recordset	Media	Downloads	Download Requests	Pub Date
University of California Museum of Paleontology (5ab348ab-439a-4697-925c-d6abe0c09b92)	CSV EML	CSV EML	CSV EML	Thu, 24 May 2018 12:46:05 -0400



Communication and coordination is a challenge

Vertebrate collections at each institution communicate about

specimen selection

transport and packaging

loans

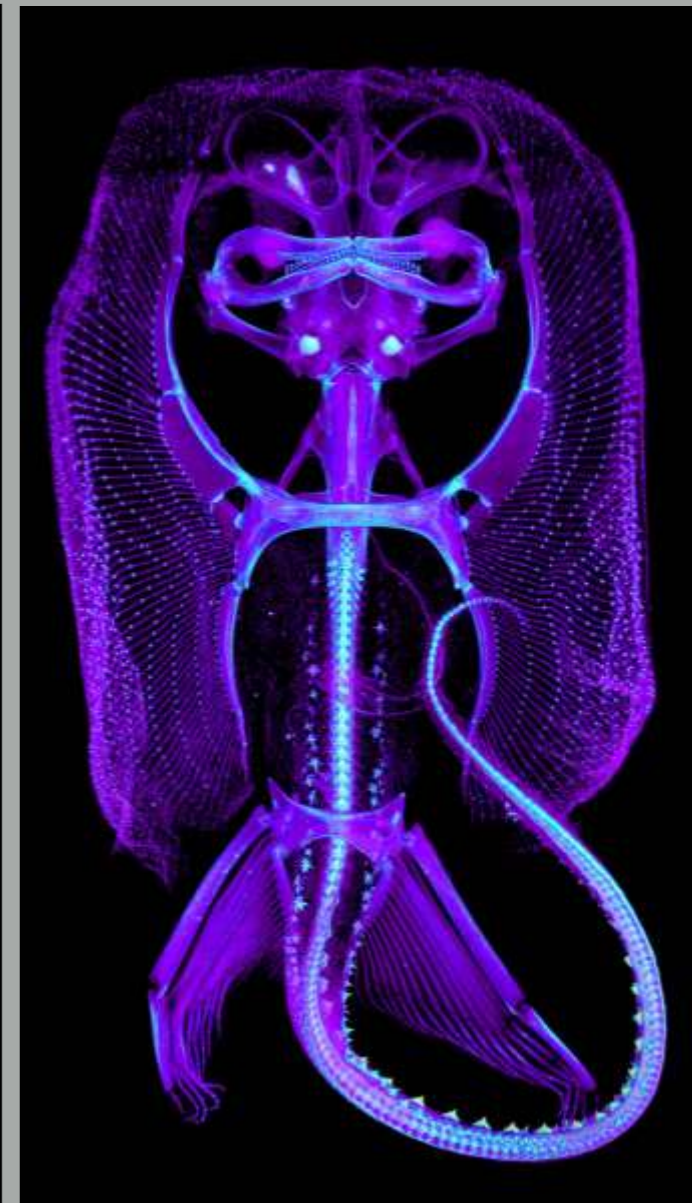
long-term data storage

Scanning centers communicate about

standardized workflows

imaging quality

data transfer





oVert project management via Basecamp

Home Pings Hey! Activity Find

oVert TCN HQ

oVert stuff everyone needs to know.

ATP AS AR AM BM BB B2 CD CA CB CG CT DR ... Add/remove people...

Campfire

- David Blackburn 9:27am Integrating MorphoSource...
- Kate Webbink 5:30pm Cool to see the Audubon (
- David Blackburn 10:31am I've spoken with Doug and...
- David Blackburn 10:34am In addition, there will be a ...
- April Isch Neander 10:17am Hi All. Just thought I shoul...

Message Board

- Interest in discussion of CT-reconstruction 20
- SPNHC 2018 abstract I am following Dave's lead. 8
- JMIH 2018 Abstract I will be submitting an 6
- Imaging permissions and copyright issues 9
- Adding participants to Basecamp

To-dos

Make lists of work that needs to get done, assign items, set due dates, and discuss.

Schedule

- Fri, Apr 6**
Monthly oVert conference call
1:00pm - 2:00pm
- Wed, May 2**

Automatic Check-ins

Asking 64 people the first Friday of every month at 9am.

What will you be working on this month?

MK OT ...

Docs & Files

- Present...
- Specim... selection

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