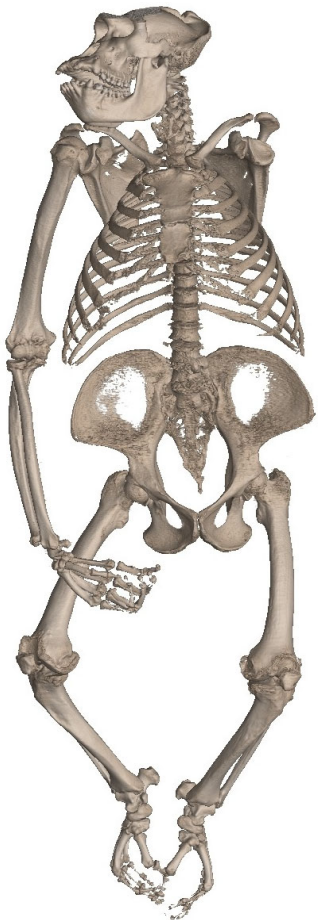
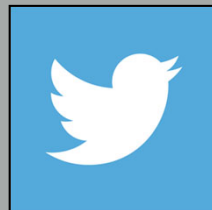


openVertebrate (oVert) Thematic Collection Network

David C. Blackburn
Associate Curator of Herpetology
Florida Museum of Natural History
University of Florida

iDigBio Annual Summit
University of Florida
October 2, 2019

#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



Scanning To Date:

>7,700 fluid-preserved specimens from >42 US institutions
represent >2,900 genera (of ~10,500)

~90% of amphibians

~60% of reptiles

~30% of fishes

~25% of mammals

~10% of birds

Taxonomy

Browsing By

[Eukaryota](#) (15896) › [Animalia](#) (15842) › [Chordata](#) (15716)

Refine

[Actinopterygii](#) (2849)

[Amphibia](#) (1134)

[Aves \(and fossil outgroups\)](#) (500)

[Cephalaspidomorphi](#) (2)

[Chondrichthyes](#) (110)

[Holocephali](#) (3)

[Mammalia \(and fossil outgroups\)](#) (9028)

[Myxini](#) (1)

[Reptilia](#) (2066)

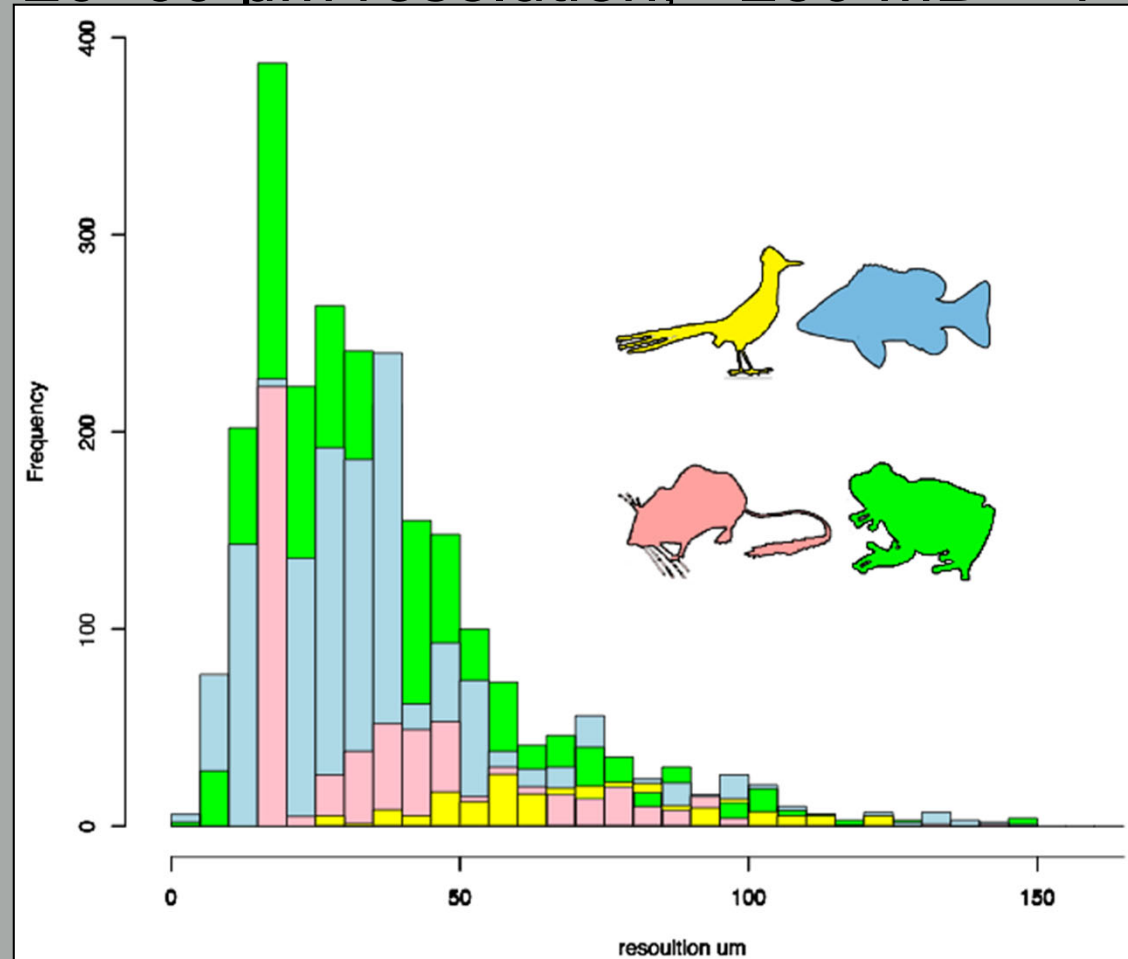
[Sarcopterygii](#) (23)

taxon name (# specimens)

overt

Scanning To Date:

>8,400 media files representing >4,900 specimens to MorphoSource
image stacks (.zip of TIFF) and 3D mesh files (.stl)
most scans: 20–60 μm resolution; ~250 MB – 1 GB



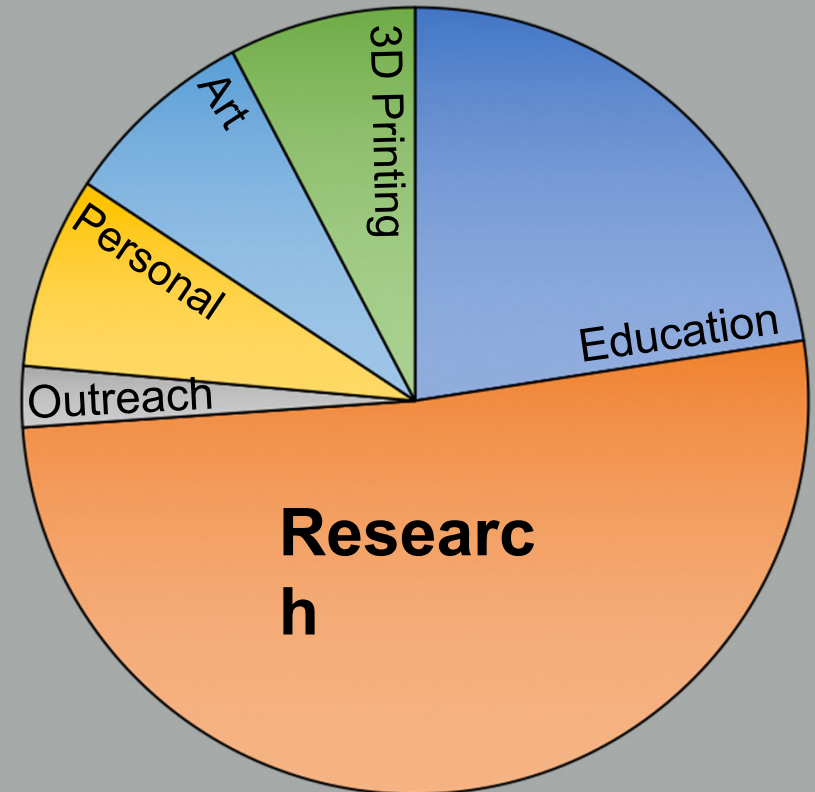


Tracking usage of digital data

oVert-generated media on MorphoSource
viewed >204,000 times
downloaded >7,000 times



Downloads



nearly 50% for “non-research”

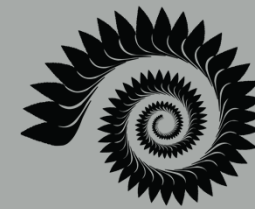
oVert

On-going PEN

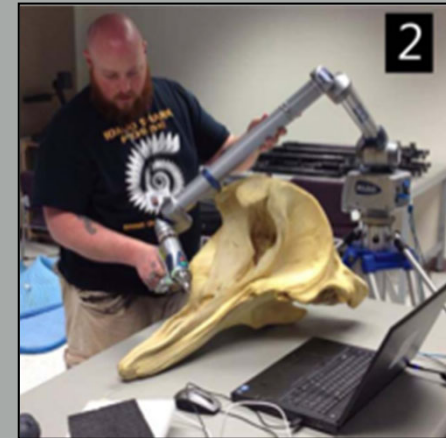
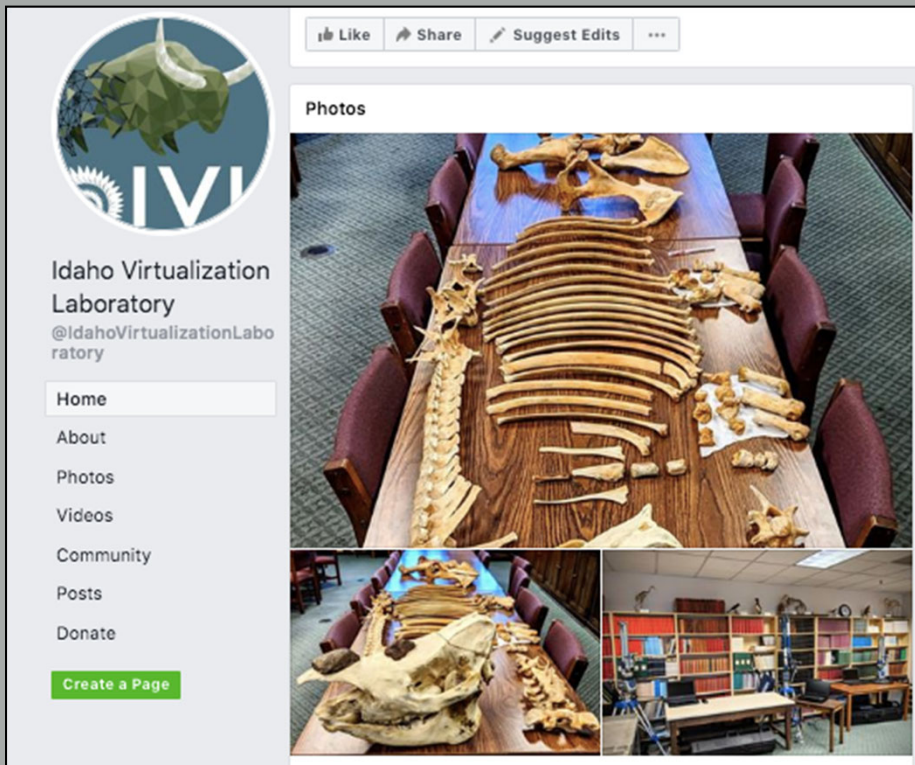
*o*MEGA (*o*nline *M*etrology of *E*xtant *G*iant *A*nimals)

PI Leif Tapanila, Idaho State University

Surface scans of bones of vertebrates >250 kg



IVL
IDAHO VIRTUALIZATION LAB



Jesse Pruitt

Imaging at Museum of Vertebrate Zoology
Summer 2019



Recently Funded PENs

oUTCT: Outwardly Mobilizing the UTCT Vertebrate Archive for Research and Training

PI Jessie Maisano, University of Texas - Austin

share UTCT data for ~1,500 specimens via MorphoSource

hands-on training of more users of CT data

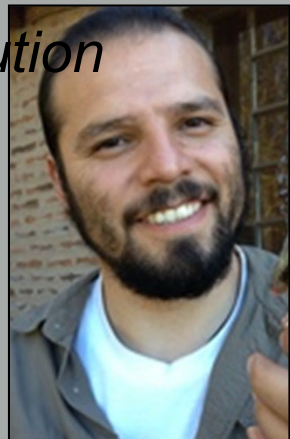


Jessie Maisano

FuncQEE: Functional Quantitative Characters for Ecology and Evolution

PI Noé de la Sancha, Chicago State University

CT-scan fluid and partial skeletons of ~500 rodents



Noé de la Sancha



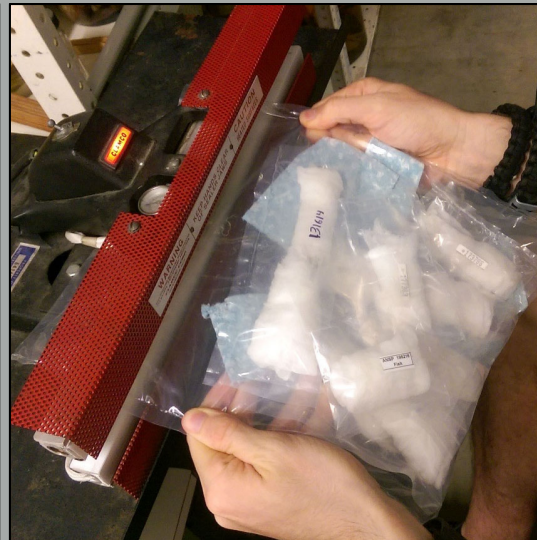
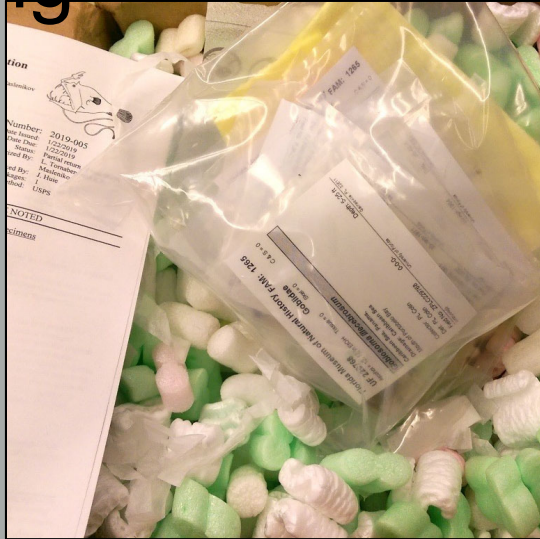
Significant time invested in unpacking & repacking



Zach Randall @ UF



Brandon Ray @ UF



estimated
3.5 min/specimen

overt

Creating new workflows for specimen loans



Zach Randall @ UF



Brandon Ray @ UF



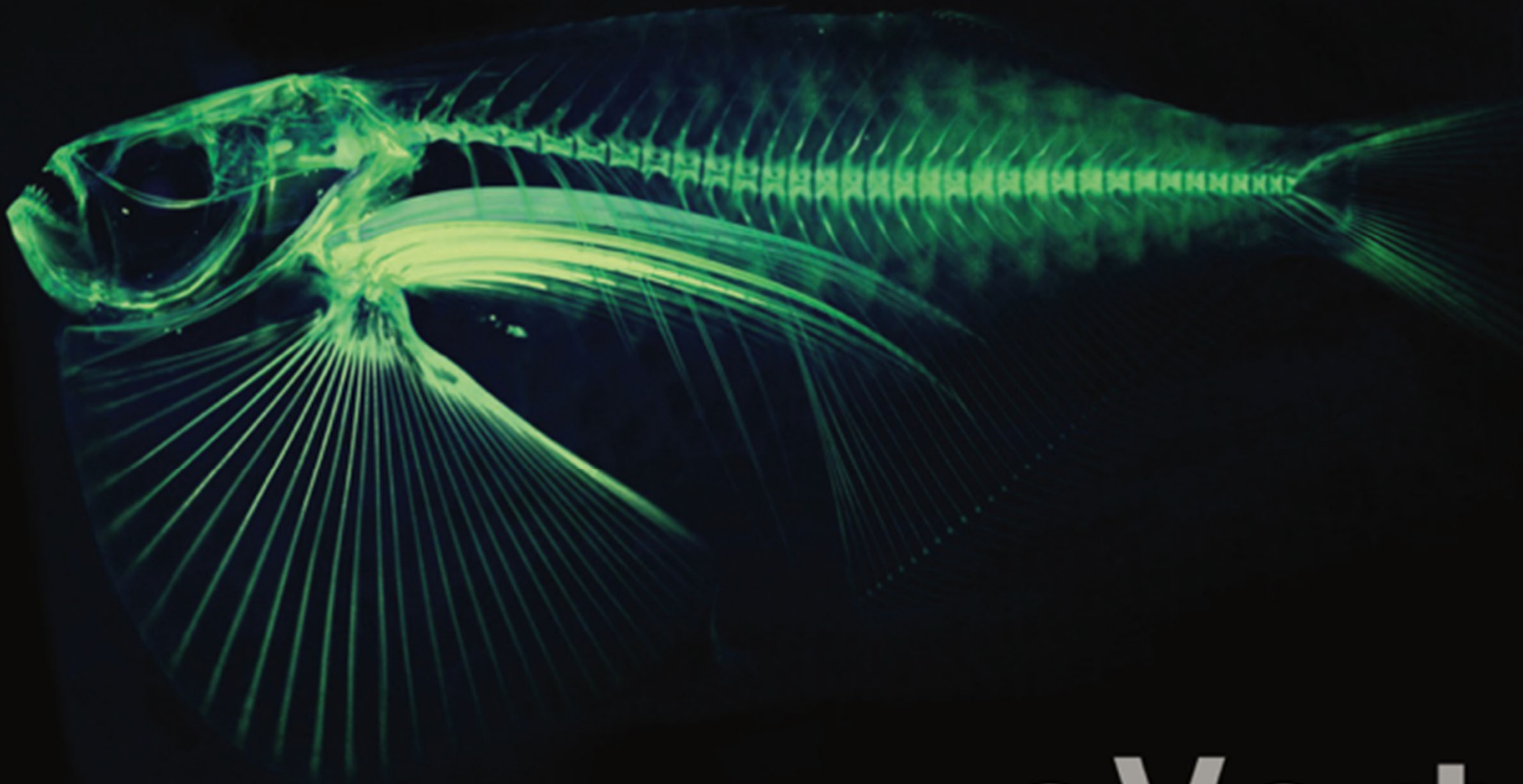
Mark Sabaj @ ANSP

estimated
32.5 sec/specimen

< 30 mL/bag

http://bit.ly/oVert_iDigBio

#oVertTCN



oVert