Paleontology Digitization Workshop:
Vertebrates, Invertebrates, Plants
September 23–26, 2013
Yale Peabody Museum
New Haven, CT

This workshop is the fourth in a series of preparation-specific workshops focusing on organizing, launching, maintaining, and enhancing a biological collections digitization program. The primary goal is to prepare participants with the necessary skills and knowledge to launch or maintain a digitization program individually, through collaboration with an existing Thematic Collections Network (TCN) or Partner with an Existing Network (PEN), or through collaboration with iDigBio. The target audience includes paleontology collections managers, curators, and directors.

Workshop topics will include but are not restricted to: 1) an overview of iDigBio, NSF's ADBC program, and nationwide digitization activities; 2) strategies for organizing and launching a digitization program; 3) digitization modules and tasks; 4) strategies for developing effective workflows and protocols for paleo digitization; 5) strategies for evaluating hardware and software, including database management systems; 6) procedures for image and data capture tailored to paleo specimens; 7) a paleo-focused introduction to tools and techniques for georeferencing, and 8) strategies for moving digitized data to the internet via iDigBio and other data aggregators and harvesters. Sample workflows, hardware specifications, and comparison software features will be available during and following the workshop through a workshop wiki. As much as practicable, workshop sessions will focus on practical application and demonstration.

Workshop planning team members include: Susan Butts (Yale Peabody), Una Farrell (Biodiversity Institute, U. Kansas), Austin Hendy (Florida Museum of Natural History), Talia Karim (Museum of Natural History, U. Colorado at Boulder), Gil Nelson (iDigBio), Chris Norris (Yale Peabody), and Jessica Utrup (Yale Peabody).

The workshop resources Wiki can be found via:
https://www.idigbio.org/wiki/index.php/Digitization_Training_Workshops
or, directly at:
https://www.idigbio.org/wiki/index.php/Paleo_Digitization_Workshop

The wiki includes links to collaborative notes pages, which can be edited by all workshop participants.

Agenda
Day 1 – September 23, 2013 (Monday)

Time	Activity/Venue	Responsible
Various	**Participants arrive**	
6:30–9:00 p.m.	**Reception and dinner Yale Peabody Museum Participant mixer**	**Gil Nelson (iDigBio) Derek Briggs (Yale Peabody Museum) Tim White (Yale Peabody Museum) Susan Butts (Yale Peabody Museum)**

Day 2 – September 24, 2013

Time	Activity/Venue	Responsible
6:00–8:00 a.m.	**Breakfast** (On your own)	
8:00–8:30 a.m.	**Workshop overview** • Workshop logistics and goals • Introduction to iDigBio • Data standards/interoperability • MISC	**Gil Nelson**
8:30–9:00 a.m.	**Getting started: Overview of paleo digitization**	**Chris Norris (Yale)**
9:00–9:15 a.m.	**Education & Outreach: The Value of Fossils**	**Bruce McFadden (iDigBio)**
9:15–9:30 a.m.	**Education & outreach: Activities, audiences, workflows, and products**	**Austin Hendy (iDigBio)**
9:30–9:45 a.m.	**Integrating with existing digitization initiatives**	**Dena Smith (U. Colorado)**
9:45–10:00 a.m.	**Paleoniches TCN**	**Una Farrell (U. Kansas)**

10:00–10:15 a.m.	Overview and plans: New TCN and opportunities for involvement	Dena Smith (U. Colorado)
10:15–10:30 a.m.	Coffee Break	
10:30–11:15 a.m.	Workflow lightning rounds	Susan Butts, emcee
11:15–11:45 a.m.	Moderated Q&A	Susan Butts
11:45–1:00 p.m.	Lunch (on your own)	
1:00–1:15 p.m.	Creating & managing workflows & digitization personnel	Larry Gall (Yale)
1:15–1:30 p.m.	Invertebrate paleontology workflows at Yale Peabody Museum; Voice recognition	Susan Butts
1:30–1:45 p.m.	Creating workflows for effective data migration and imaging in an invertebrate paleontology collection	Ann Molineux (U. Texas)
1:45–2:00 p.m.	Paleontology workflows at NMNH and digitization strategies at the Smithsonian Institution	Kathy Hollis, (Smithsonian)
2:00–2:15 p.m.	Dealing with specimens from federal lands in an ADBC workflow	Dena Smith
2:15–2:30 p.m.	Digitization workflows in vertebrate paleontology	Chris Norris (Yale)
2:30–2:45 p.m.	Coffee Break	
2:45–3:00 p.m.	Paleobotany workflows	Selena Smith (U. Michigan)

3:00–3:15 p.m.	Pre-digitization curation practices	Jessica Utrup (Yale)
3:15–5:00 p.m.	Collection tour	Susan Butts
6:00 p.m.	Dinner (on your own)	

Day 3 – September 25, 2013

Time	Activity/Venue	Responsible
6:00–8:00 a.m.	Breakfast (on your own)	
8:00–8:30 a.m.	Q&A and moderated discussion	Gil Nelson
8:30–9:00 a.m.	Data standards, EMu, & integration with campus-wide digital infrastructures at Yale	Larry Gall
9:00–9:30 a.m.	Specify 5 & 6 for paleontology collections	Una Farrell (University of Kansas) Talia Karim (University of Colorado)
9:30–9:45 a.m.	Arctos for paleo collections	Julie Rousseau (U. Alaska)
9:45–10:00 a.m.	Open Refine and cleaning data	Una Farrell
10:00–10:30 a.m.	Q&A and moderated discussion: Issues in database design for paleontology data	Talia Karim Gil Nelson
10:30–10:45 a.m.	Coffee Break	
10:45–11:30 p.m.	Specify Usability Roundtable Discussion	Talia Karim Jim Beach (Specify)
11:30–12:00 p.m.	Data publishing to large scale aggregators: GBIF, iDigPaleo, PaleoPortal--	Chris Norris

	Moving digitized objects to the web via aggregators and harvesters:	
12:00–1:15 p.m.	Lunch (on your own)	
1:15–2:00 p.m.	Georeferencing Paleo Collections	Una Farrell Jessica Utrup
2:00–2:15 p.m.	Digital Imaging Basics: From Y2K to the Present	Roger Burkhalter (U. Oklahoma)
2:15–2:30 p.m.	3D Scanner technology for paleo digitization	Binil Starley (U. Oklahoma)
2:30–2:45 p.m.	Digitizing multi-disciplinary collections: a collaborative approach at the University of Iowa	Tiffany Adrain (U. Iowa)
2:45–3:05 p.m.	Photomicrography of amber and its inclusions, and problematic insect compressions	Dave Grimaldi (AMNH)
3:05–3:15 p.m.	Coffee Break	
3:15–3:30 p.m.	How to photograph paleobotany & micropaleontology specimens at SNOMNH: A work In progress	Margaret Landis (U. Oklahoma)
3:30–4:15 p.m.	Imaging lighting rounds (5 min, 1 min transition)	Jessica Utrup, emcee
4:15–5:00 p.m.	• Q&A: Imaging strategies • Moderated discussion: Resolving the widening gap between small/large and funded/unfunded collections • Wrap-up	Jessica Utrup Austin Hendy Gil Nelson

6:00 p.m.	**Dinner (on your own)**	