

Integrated Digitized Biocollections



iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (Cooperative Agreement EF-1115210). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. All images used with permission or are free from copyright.



Welcome! And a few logistical details

Planning Committee: Mike Webster (Cornell) Ed Scholes (Cornell) Cody Thompson (U. Michigan) Molly Hagemann (Bishop Museum) Gil Nelson (iDigBio/FSU)

Other iDigBio: Greg Riccardi, Kevin Love, Molly Phillips, Randy Singer, Verity Mathis

Wiki: https://www.idigbio.org/wiki/index.php/Strategies_for_Vertebrate_Digitization_Workshop
Adobe Connect (Kevin Love): http://idigbio.adobeconnect.com/vertdigitization
Being broadcast and recorded
Be observant of remote audience; use microphone to make comments, ask questions
Chat box for remote participants
Efficiency: Starting on time; staying on track; discussion sessions built in
Lunch: 1 hour/day, catered
Origin of this workshop



Introduction to iDigBio

4 May 2015 Cornell Laboratory of Ornithology Ithaca, NY

Gil Nelson, PhD Assistant Professor/Research iDigBio/Institute for Digital Information and Scientific Communication Florida State University



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Estimates suggest that there are between 500 million and one billion biological and paleobiological specimens in the United States, perhaps 3+ billion worldwide. No one really knows for sure!











In an effort to make these collections universally accessible to taxonomists, ecologists, researchers, and the general public, in 2011 the U.S. National Science Foundation launched a \$100 million, 10-year Advancing Digitization of Biodiversity Collections program and named the University of Florida and Florida State University jointly as the coordinating center and national resource for digitization.

The scope of our work is limited to public, non-federal, U.S. collections, though NSF has encouraged us to develop international collaborations.



Advancing Digitization of Biodiversity Collections









Integrated Digitized Biocollections (iDigBio) University of Florida Florida State University Florida Museum of Natural History

The goal is to digitize and make available via the Web records for all biological and paleontological collection objects in N. America over the 10-year life of the project.



Thirteen Thematic Collections Networks (TCNs) plus 10 Partner to Existing Networks (PENs)

- InvertNet: An Integrative Platform for Research on Environmental Change, Species Discovery and Identification (*Illinois Natural History Survey, University of Illinois*) <u>http://invertnet.org</u>
- Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-Trophic Associations (*American Museum of Natural History*)
 <u>http://tcn.amnh.org</u>
- North American Lichens and Bryophytes: Sensitive Indicators of Environmental Quality and Change (*University of Wisconsin Madison*) <u>http://symbiota.org/nalichens/index.php</u> <u>http://symbiota.org/bryophytes/index.php</u> (plus 2 PENs)
- Digitizing Fossils to Enable New Syntheses in Biogeography Creating a PALEONICHES-TCN (University of Kansas)
- The Macrofungi Collection Consortium: Unlocking a Biodiversity Resource for Understanding Biotic Interactions, Nutrient Cycling and Human Affairs (*New York Botanical Garden*)
- Mobilizing New England Vascular Plant Specimen Data to Track Environmental Change (*Yale University*)
- Southwest Collections of Anthropods Network (SCAN): A Model for Collections Digitization to Promote Taxonomic and Ecological Research (*Northern Arizona University*) <u>http://hasbrouck.asu.edu/symbiota/portal/index.php</u>
- iDigPaleo: Fossil Insect Collaborative: A Deep-Time Approach to Studying Diversification and Response to Environmental Change
- Developing a Centralized Digital Archive of Vouchered Animal Communication Signals (Cornell University, Laboratory of Orthithology)
- The Macroalgal Herbarium Consortium: Accessing 150 Years of Specimen Data to Understand Changes in the Marine/Aquatic Environment
- Collaborative: Documenting the Occurrence through Space & Time of Aquatic Non-indigenous Fish, Mollusks, Algae, & Plants Threatening North America's Great Lakes
- Collaborative Research: The Key to the Cabinets: Building and Sustaining a Research Database for a Global Biodiversity Hotspot
- InvertEBase: reaching back to see the future: species-rich invertebrate faunas document causes and consequences of biodiversity shifts



National Resource (iDigBio), Thematic Collection Networks (TCNs)



To date: 13 TCNs, 203 unique institutions, 50 states



Advancing Digitization of Biodiversity Collections (ADBC)



To date: 13 TCNs, 203 unique institutions, 50 states



Key Features of iDigBio

- Ingest all contributed data with emphasis on use of GUIDs, no restrictions
- Maintain persistent datasets and versioning, allowing new and edited records to be uploaded as needed while preserving existing records
- Ingest textual specimen records, plus associated still images, video, audio, and other media (or links to these resources as determined by the provider)
- Ingest linked documents and associated literature, including field notes, ledgers, monographs, related specimen collections, etc.
- Provide virtual annotation capabilities and track annotations back to the originating collection (collaborating with FilteredPush)
- Facilitate sharing and integration of data relevant to biodiversity research
- Provide computational services for biodiversity research



Information Dissemination

In March 2012, the iDigBio Steering Committee established a series of preparation-specific digitization training workshops focused on helping collections managers get started with and/or enhance local digitization programs, all to be held at host institutions.



- DROID (Developing Robust Object->Image->Data, May 2012)
- Herbarium digitization (Valdosta State, September 2012)
- Fluid-preserved collections digitization (U. Kansas, March 2013)
- Dried insect collections digitization (Field Museum, April 2013)
- Collections Digitization (West Virginia, ASB, April 2013)
- Imaging fluid-preserved invertebrates (U. Michigan, September 2013)
- Georeferencing Train-the-Trainers (iDigBio, Gainesville, August 2103)
- Paleontology digitization (Yale Peabody Museum, September 2013)
- Small Herbarium Digitization (Florida State University, December 2013)
- Digitization in the South Pacific (Honolulu, March 2014)
- Paleoimaging (Austin, TX, April 2014)
- Small Herbarium Digitization (Boise, Botany 2014, July 2014)
- Leveraging Digitization Knowledge Across Multiple Domains (Santa Barbara, October 2014)
- CT Scanning and Visualization Short Course (University of Texas, February 2015)



Product-oriented Workshops



- Augmenting OCR Hackathon (Ft. Worth, February 2103)
- Original Source Materials Digitization (Yale Peabody Museum, March 2014)
- Recruiting and Retaining Small Collections in Digitization (Mt. Pleasant, MI, April 2014)
- CitScribe Hackathon (iDigBio, Gainesville, December 2013)
- Education and Outreach (iDigBio, Gainesville, January 2014)



DigBio Home Wiki	Working Groups Workshops Wiki Formatting Help
Wiki Home Workshop Summaries Working Group List	Page Discussion
iDigBio Data Ingestion Queue Dashboard Published data Ingestion Guidance Digitization Resources	DIGITIZATION RESOURCES This page provides resources and information for the series of digitization training workshops being conducted by iDigBio as we websites, videos, presentations, and other important information related to biological collection digitization.
	iDigBio Intro[edit]
iDigBio Working Groups	Introduction to iDigBio Slide Set Intro to iDigBio pdf file
 Navigation Tools All iDigBio Wiki Content Content by category Recent changes Random page Help 	Interest/Working Groups[edit] International Whole-Drawer Digitization Interest Group NANSH Working Group (North American Network of Small Herbaria) Fluid-preserved Arthropod and Microscopic Slide Imaging Interest Group Paleontology Digitization Working Group Small Collections Network Working Group
 Tools What links here Related changes Upload file Special pages Printable version Permanent link Page information 	Digitization Workshop Wikis[edit] • Object To Image To Data Workshop Wiki, Gainesville (May 2012) • Herbarium Workshop Wiki, VSU, Valdosta, GA (Sept 2012) • Wet Collections Workshop Wiki (4-6 March 2013) • Dried Insect Digitization Workshop Wiki (23-26 April 2013) • ASB Digitization Workshop and Symposium (13 April 2013) • CSIRO Digitization Workshop, Canberra, Australia (July 2013) • Specify Workshop Wiki (12-16 August 2013) • Fluid-preserved Invertebrate and Microscopic Slide Imaging (16-19 Sept 2013)

Wikis Working groups Listservs

anagement (BIM) Working Group
G)
t to Image to Data (DROID1)
t to Image to Data (DROID2)
t to Image to Data (DROID3): 3D Objects and Things in Spirits
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Group (GWG)
er Digitization Interest Group (WDD)
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(NANSH)
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n Interest Group
ers Editorial Board and Interest Group
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