



20 May 2014 Specify for Paleo Workshop University of Kansas Biodiversity Institute Deborah Paul, Florida State University, iDigInfo, iDigBio on Twitter @idbdeb



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A few logistical bits first

- Adobe Connect <u>https://desktopconnect.ku.edu/specify</u>
 - Being broadcast and recorded
 - Use microphones for comments
 - Chat with remote participants if you log in
 - See the details up close
- The Best Turtle Ever or The Power of the Collective
 - http://tinyurl.com/specifypaleonotes
- Workshop Wiki: <u>http://tinyurl.com/specifypaleowiki</u>
- Twitter: @iDigBio #idigpaleo @jason_brit @idbdeb
 - Your twitter handle?
- Participant List on the wiki
- Let's get started...



Overview

- NIBA > NSF > to the ADBC
- Website
- Portal
- Wiki
- Workshops, Webinars, Co-located Events
 - Upcoming, Your Input
- Working Groups
- Listservs
- TCNs
- Broadening Participation
- Emerging Professionals



Advancing Digitization of Biological Collections

- NIBA Network Integrated Biocollections Alliance
 - NSF > ADBC > iDigBio
 - Integrated Digitized Biocollections Hub
 - Thematic Collection Networks (TCNs)
 - Goals
 - enhance/expand the national resource of digital data documenting existing vouchered biological and paleontological collections
 - advance scientific knowledge by improving access to digitized information (including images)
 - a billion biological and paleontological records over the 10-year life of the project.
 - 10 TCNs funded so far (more soon)



DigBio port	al.idigbio.org		About iDigBio Portal	
iDigBio Home Portal Home Search	h Records Tutorial Publishers	Feedback		
 Search Records Full Text Search Alpine Texas Search Current Results Query: Contains text 'Alpine Texa Contains text 'Alpine Texa Records: 143 Approx. Download Time: Ohrs Omins 15secs Email: Enter Email to Download Download (Inter Temail to Download 				
Table view Label view				
Acacia angustissima Kuntze var. hirta (Nutt.) Robinson , Fabaceae, Fabales, USA, Texas, Alpine, Theodore L. Steiger, 1932- 5-, UConn, CONN	Agave havardiana Trel., Agavaceae, USA, Texas, Cultivated at Desert Garden, Huntington Botanical Garden, California, accession number 19648. Originally obtained from the Southwest Cactus and Novelty Shop, Alpine, Texase. Aug. 1986 as, two plante.	Agave havardiana Trel., Agavaceae, USA, Texas, Cultivated at Desert Garden, Huntington Botanical Garden, California, accession number 19648. Originally obtained from the Southwest Cactus and Novelty Shop, Alpine, Texase Aux 1988 as two plants	Aphaenogaster cockerelli E. Andr, Formicidae, USA, Texas, 4 W miles, TTU, TTU-Z	
Aphaenogaster cockerelli E. Andr, Formicidae, USA, Texas, 28 S miles, 1978-07-28, TTU, TTU-Z	Aphaenogaster cockerelli E. Andr, Formicidae, USA, Texas, 4 W miles, TTU, TTU-Z	Argemone platyceras var. hispida (A. Gray) Prain, Papaveraceae, USA, Texas, 6.5 miles South of Alpine., E. R. Blakley; W.T.Marshall, 1952-08-18, DES	Arnica latifolia Bong., Asteraceae, Canada, British Columbia, Chickamin Glacier, Texas Creek Summit., T.T. McCabe, 1941-07-18, UTC	
Bahia bigelovii A. Gray, Asteraceae, USA, Texas, near Alpine, 1935-09-22, KHD	Baileya pleniradiata Harvey & A. Gray ex A. Gray, Asteraceae, USA, Texas, Persimmon Gap, About 45 miles south of Alpine., Omar E. Sperry, 1935-10-07, KHD	Bommeria hispida (Mett. ex Kuhn) Underwood, Pteridaceae, USA, Texas, 5.5 mi south of Alpine, E. R. Blakley, 1952-08-18, DES	Bouvardia ternifolia (Cav.) Schlecht., Rubiaceae, USA, Texas, 5.5 mi south of Alpine., E. R. Blakley; W. T. Marshall, 1971-05-00, DES	
Bryum turbinatum (Hedw.) Turner, Bryaceae, United States, Texas, On soil, banks of Clamity Creek, ca. 20 mi. S of Alpine on SH 118. Grassland., R. E. Magill, 1972-07-02, FLAS	Camponotus festinatus (Buckley), Formicidae, USA, Texas, 4 W miles, TTU, TTU-Z	Camponotus festinatus (Buckley), Formicidae, USA, Texas, 28 S miles, 1978-07-28, TTU, TTU-Z	Camponotus sayi Emery. Formicidae, USA, Texas, 8 E miles, 1978-07-27, TTU, TTU-Z	





- Facilitate use of biodiversity data to address environmental and economic challenges
 - Researchers
 - Educators
 - General public
 - Policy-makers
- Enable digitization of biodiversity collections data
 - Develop efficient and effective digitization standards and workflows
 - **Disseminate** digitization strategies
 - Respond to cyberinfrastructure needs
- Provide **portal access** to biodiversity data in a cloud-computing environment
- Plan for long-term sustainability of the national digitization effort
 - Expand participation: partners and data sources



Mandate and Responsibility

www.idigbio.org portal.idigbio.org www.idigbio.org/wiki

- Provide/facilitate portal access to collections data
 - Make information available and discoverable
 - Label Data and images
- Enable digitization and research
 - Facilitate digitization workflows
 - Oversee implementation of standards
 - and best practices for digitization
 - Allow for data discovery across organismal groups
- Be a client of digitization projects/networks
 - Actively seek partners and data sources
 - Respond to cyberinfrastructure needs
- Engage communities
 - Collections
 - Research
 - Citizen science and education
- Support ADBC goals
 - Access to information
 - Support for collections
 - Sustainability







Broadening Participation



Fifteen undergraduate students from seven Florida colleges and universities converged on the Florida Museum of Natural History April 17-19 for an all-expense-paid opportunity to



https://www.facebook.com/groups/spnhc.epg/

SPNHC EMERGING PROFESSIONALS GROUP





Mandate and Responsibility

www.idigbio.org portal.idigbio.org www.idigbio.org/wiki

Grand Challenge Develop a cloud computing infrastructure that links biological data from collections across the U.S. through one or more unified web interfaces to overcome the limitations of "data silos."





More recently, we have been encouraged by NSF to establish international collaboration and sharing.



Website – Portal - Wiki

www.idigbio.org





Events!

Website – Portal - Wiki portal.idigbio.org





Website – Portal - Wiki

Here are some links to get you started:

www.idigbio.org/wiki

Page Discussion

Read View source View history

Search

Q





Building the iDigBio Cloud

- Cloud-based strategy
 - Providing useful services/APIs (programmatic and webbased Application Programming Interface)
 - Federated scalable object storage and information Specify Install processing
 - Digitization-oriented virtual appliances



KEY Features

- Ingest specimen data with emphasis on use of identifiers
 - any data elements
 - plus associated still images, video, audio, and other media
- Maintain persistent datasets and versioning,
 - new and edited records to be uploaded as needed
- Ingest linked documents and associated literature
 - field notes, ledgers, monographs, related specimen collections, etc.
- Provide virtual annotation capabilities
 - track annotations back to the originating collection (collaborating with FilteredPush)
- Facilitate sharing, integration and enhancement of data relevant to biodiversity research
- Provide computational services for biodiversity research



iDigBio and the TCNs



To date: 10 TCNs, 7 PENs, 160+ participating institutions, 50 states

Ten Thematic Collections Networks (TCNs)

and 7 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) http://invertnet.org
- Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-Trophic Associations (American Museum of Natural History) http://tcn.amnh.org
- North American Lichens and Bryophytes: Sensitive Indicators of Environmental Quality and Change (University of Wisconsin – Madison) http://symbiota.org/nalichens/index.php http://symbiota.org/bryophytes/index.php
- 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 Arthropods Network (SCAN): A Model for Collections Digitization to Promote Taxonomic and Ecological Research (Northern Arizona University) http://hasbrouck.asu.edu/symbiota/portal/index.php
- Fossil Insect Collaborative: A Deep-Time Approach to Studying Diversification and Response to Environmental Change
- Collaborative Research: Digitization TCN: Developing a Centralized Digital Archive of Vouchered Animal Communication Signals
- The Macroalgal Herbarium Consortium: Accessing 150 Years of Specimen Data to Understand Changes in the Marine/Aquatic Environment



Digitization training workshops 21 Workshops, 691 people (Fiscal Year 2013-2014)

- Developing Robust Object-Image-Data Workflows (DROID 1, 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)
- Paleontology digitization (Yale Peabody Museum, September 2013)
- Small herbarium digitization (Florida State University, December 2013)
- Broadening diversity in the biodiversity sciences (January, 2014)
- Original source materials digitization (Yale Peabody, March 2014)
- Specify for Paleo Workshop (U. Kansas, May 2014)



Upcoming iDigBio Workshops, Symposiums, Webinars, ...

TORCH - iDigBio Digitization Workshop	Sul Ross State University (Alpine, Texas)	05-24-2014	
WEBINAR: Large Collections Supporting Small Collections	https://idigbio.adobeconnect.com/scnet	06-02-2014	
Georeferencing Natural History Specimen Data Workshop	Renaissance Oklahoma City Convention Center Hotel and 06-06-2014		
	Cox Convention Center (Oklahoma City, Oklahoma)	to 06-10-	
		2014	
WEBINAR: AIM-UPI: Advancing Integration of Museums into	https://idigbio.adobeconnect.com/scnet	06-09-2014	
Undergraduate Programs			
iDigBio Steering Committee & Executive Committee Meeting	UF Building 105, Room 310 (Gainesville, Florida)	06-12-2014	
SPNHC 2014, Cardiff, Wales	Cardiff Millennium Centre (Cardiff, Wales, UK)	06-22-2014	
		to 06-27-	
		2014	
Recruiting, Retaining, and Supporting Small Collections in Biodiversity	Cardiff Millennium Centre (Cardiff, Wales, UK)	06-25-2014	
Digitization Initiatives			
Managing Archives, Special Collections and Original Source	Cardiff Millennium Centre (Cardiff, Wales, UK)	06-25-2014	
Documentation in Natural History Collections: Challenges and			
Opportunities.			
Update on Initiatives and Progress in Digitization of Natural History	Cardiff Millennium Centre (Cardiff, Wales, UK)	06-25-2014	
Collections			
SPNHC 2014 DemoCamp	Cardiff Millennium Centre (Cardiff, Wales, UK)	06-26-2014	
SPNHC 2014 Special Interest Group Session: Collections Digitization	Amgueddfa Cymru – National Museum Wales (Cardiff,	06-27-2014	
and Opportunities for International Collaboration	Wales, UK)		
iDigBio Retreat II	Learning Center at the Austin Cary Forest (10625 NE	06-30-2014	
	Waldo Rd, Gainesville, FL 32609) (Gainesville, Florida)		
iDigBio End-of-the-Fiscal-Year Party	Tall Paul's (10 SE 2nd Ave) (Gainesville, Florida)	06-30-2014	
iDigBio Steering Committee & Executive Committee Meeting	UF Building 105, Room 310 (Gainesville, Florida)	07-10-2014	
Botany 2014 - New Frontiers in Botany	Boise Centre (Boise, Idaho)	07-26-2014	
		to 07-30-	
		2014	
Georeferencing Natural History Collections: A Crash Course in	Boise Centre (Boise, Idaho)	07-27-2014	
Translating Locality Data into Geographic Coordinates			
Digitized natural history collections records in traditional research,	Boise Centre (Boise, Idaho)	07-29-2014	
collaborative research, and big data research			
Botanical DNA Banking and the Systematics Community: Working	Boise Center (Boise, Idaho)	07-29-2014	
Together to Meet Future Research Challenges			

https://www.idigbio.org/outreach-events-sidebar



Thank you to our Specify team hosts!

Let's get started...



