DIGITIZING FOSSILS TO ENABLE NEW SYNTHESES IN BIOGEOGRAPHY- CREATING A PALEONICHES

Report submitted by: blieber@ku.edu
Report Submitted on: 03/10/2014 - 15:21

Progress in Digitization Efforts

Please see attached file.

Share and Identify Best Practices and Standards (including Lessons Learned)

Nothing to report at this time.

Identify Gaps in Digitization Areas and Technology

Nothing to report at this time.

Share and Identify Opportunities to Enhance Training Efforts

Please see attached file.

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

Nothing additional to report at this time.

Share and Identify Opportunities and Strategies for Sustainability

Nothing additional to report at this time.

Other Progress (that doesn't fit into the above categories)

Please see attached file.

Attachment

https://www.idigbio.org/sites/default/files/webform/tcn-reports/iDigBioPaleonichesMarch2014.docx

iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (#EF1115210)

Paleoniches Update, March 2014

Regarding the **University of Kansas** portion of the project, led by PI Bruce S. Lieberman and co-PI Una Farrell, we now have a total of 120,754 specimens databased. Of these, there are a total of 115,451 specimens databased that have clean, proofed localities. Further, we now have a total of 90,590 specimens that are georeferenced. In addition, a total of ~5560localities have been georeferenced. In other relevant news, Una Farrell will be attending the upcoming paleo imaging workshop at Texas this spring. In addition, post-doc Michelle Casey and Bruce Lieberman completed an on-line lab resource on trilobites that draws on images of specimens from our collections that can be used in outreach efforts and also teaching college invertebrate paleontology labs on trilobites at schools that lack fossil collections. It will be available soon via our division website and is currently available at http://phylo.bio.ku.edu/fossil/wp-content/uploads/2014/03/Introduction-to-the-Trilobites.pdf . It has also been submitted for publication on the Science Education Resource Center at Carleton College (SERC) website http://serc.carleton.edu/index.html and has received approval and is just awaiting posting. We also participated in an outreach event at the Kansas City Gem and Mineral Show where we interacted with about 400 members of the public to talk about our fossil collections and various activities we are doing with them, including our databasing work. Two of our undergraduate databasers graduated so we have hired two new undergrads and are currently training them. Finally, PI Bruce Lieberman and one of the graduate students funded off the grant, Erin Saupe, have a paper, along with the PI from San José State Jon Hendricks, (and one other author) describing our ecological niche modeling (ENM) relying on georeferenced and environmental data from mollusks housed in the museum of

one of our partners on the grant (FLMNH) now published early view at the *Journal of Biogeography*. Another paper performing ENM on fossil and modern populations, authored by the same, as well as several climate modelers, that includes georeferenced material from these and other museum collections, is also currently in review.

Since the last update, PI Hendricks (**San Jose State University**; SJSU) and his undergraduate and graduate student assistants have continued to generate content for the "Digital Atlas of Ancient Life" and have put it online.
The most significant update is that the new undergraduate student who was trained has picked up web programing very quickly and has been developing a new design and simplified html structure for the Digital Atlas, which will make future updates much simpler, saving time in the long run. The revised code should also load more quickly for most users. Another benefit of this redesign is that the new code will be fully accessible to visually impaired users who may require a text reader to access the web content.
Additionally, the Digital Atlas project is in the process of being migrated to a new, permanent server and will soon be accessible through these new domain names (also mentioned in the last
report): www.digitalatlasofancientlife.org, www.neogeneatlas.org, and www.pennsylvanianatlas.org. (The Digital Atlas will remain accessible
at http://www.geosun.sjsu.edu/~jhendricks/AtlasTemp/ until the migration is complete.)
Progress continues to be made on developing content for both the Neogene and Pennsylvanian Digital Atlases. Content is currently being generated for the Neogene Atlas for the bivalve family Arcidae; the bivalve family Glycymerididae will follow. Additionally, web content has been produced for most of the

brachiopod species that will go on the Pennsylvanian site (not yet online, however).

Since the last update, PI Stigall (**Ohio University**; OU) reports:

has completed the top 50 species and they are live for public viewing. Currently, they are organizing the photographs taken at the Cincinnati Museum Center and Miami University and generating content for the pictures we are able to process.

Taxon	**Total in Collection:** **Families - Genera (species)**	**Atlas Pages Created** **Families - Genera (species)**	**Atlas Pages Live** **Families - Genera (species)**
Brachiopods	17 – 28 (49)	17 – 28 (49)	11 – 14 (17)
Arthropods	7 – 7 (9)	7 – 7 (9)	5 –5 (6)
Corals	6 – 7 (7)	6 – 7 (7)	2 – 2 (2)
Bryozoa	15 - 38 (89)	15 - 38 (89)	4 – 4 (8)
Bivalves	11 – 20 (24)	11 – 20 (24)	3 – 4 (4)
Cephalopods	7 – 9 (10)	7 – 9 (10)	2 – 3 (3)
Gastropods	7 – 12 (20)	7 – 12 (20)	3 – 4 (4)
Porifera	2 – 2 (2)	2 – 2 (2)	-
Echinoderms	11 – 13 (16)	11 – 13 (16)	4 – 4 (4)
Graptolites	2 – 2 (2)	2 – 2 (2)	-
Tentaculites	2 – 2 (3)	2 – 2 (3)	2 – 2 (2)
Monoplacophora	1 – 1 (1)	1 – 1 (1)	1 -1 (1)
Trace Fossils	0 – 11 (0)	0 – 11 (0)	-
Totals:	**88 – 152 (232)**	**88 – 152 (232)**	**37 – 45 (51)**
Final Totals:	**472**	**472**	**132**

Rather than continuing to the top 50 genera they are going to finish processing the photographs from the CMC and MU then systematically continue through the organisms beginning with the brachiopods and the bryozoans. The bryozoan content was largely completed during the past summer and they are focusing on generating photographs for specimens in our

collection as well as the CMC and MU for quick release of those pages.

Table of taxon pages created and live, they are approximately

28% of the way through generating all of the content for the specimens in our collection.

Finally, for our PEN partners. First, **Texas**, PI: Ann Molineux, Co-PI: James Sprinkle

Catalog records: 93415
Catalog lots (includes multiple instances of containers with the same catalog number in different physical storage locations): 101319
Specimens: Total specimens in Specify6 is now over 300,000
Localities: 14005 of which 3012 are georeferenced
We have scanned all field notebooks of Sprinkle and are currently working with a group from the iSchool to attach that data along with verbal commentary by JS to Specify, individual collection object records as well as adding the whole as a field notebook.
We continue our whole drawer imaging as part of the Paleozoic inventory in combination with record imaging of each specimen and label.
The PI, Angie Thompson and Liath Appleton are all involved with the upcoming iDigBio/UT Paleo Imaging workshop in April. Angie Thompson will be attending the iDigBio/ Specify workshop in May and Liath Appleton is active with the iDigBio georeferencing group and is our main trainer. She has been trying to develop faster ways to verify georeference points without having to essentially re-georeference.

And finally for **Yale**:

Yale Peabody IP is currently working on our final goal, which is to catalog our ledgers (approximately 30K entries, our project seeks to catalog 7,627 records and 968 localities). Since the start of this phase of the project, we have modified or added approximately 750 objects and geoferenced 300 localities, although many of these are not Ordovician and Pennsylvanian (the targets of PaleoNICHES digitization). We have not yet started photography of the most common taxa (1062 species) found in our ledgers.
Two EVOlutions students (Peabody Museum afterschool program for STEM education for under-served populations) continue to learn the ropes of museum collections work and how collections are used in scientific research.
Yale will be submitting a request (via fastlane) for transfer of unused funds earmarked for the georeferencing workshop from participant costs to materials and supplies.

The Macroalgal Herbarium Consortium: Accessing 150 Years of Specimen Data to Understand Changes in the Marine/Aquatic Environment

Report submitted by: Chris.neefus@unh.edu
Report Submitted on: 03/17/2014 - 12:34

Progress in Digitization Efforts

Profiles for 19 of the Macroalgal Consortium institutions have been set up on the Macroalgae.org Portal. UNH, UNC, UMICH, NYBG, UConn, and DUKE have begun uploading specimen data and image. A total of 52911 specimen records have been uploaded, and of these, 57% have been images and 11% have been geo-referenced.

Share and Identify Best Practices and Standards (including Lessons Learned)

Workflow seems quite efficient. We are making minor adjustments as we progress. We have been using a hybrid of OCR, Voice Recognition, and typing for data transcription in the portal (Symbiota) from the label images. OCR works well for clearly typed labels. Voice works well for poorly typed and handwritten labels especially in combination with the automatic dropdown choices that Symbiota shows as you start an entry in each field.

Identify Gaps in Digitization Areas and Technology

We have an algal taxonomic thesaurus, but are waiting for the Symbiota team to integrate it into our portal.

Share and Identify Opportunities to Enhance Training Efforts

We've added a couple of new training videos to our document website (macroalgae.unh.edu) including a "Getting Started with the Macroalgae Portal" and "Label Transcription in the Macroalgae Portal".
Several of us will be participating in the "Biological Collections Digitization in the Pacific" workshop March 24-28,2014

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

nothing to report

Share and Identify Opportunities and Strategies for Sustainability

nothing to report

Other Progress (that doesn't fit into the above categories)

nothing to report

Attachment

THE MACROFUNGI COLLECTION CONSORTIUM: UNLOCKING A BIODIVERSITY RESOURCE FOR UNDERSTANDING BIOTEC INTERACTIONS, NUTRIENT CYCLING AND HUMAN AFFAIRS

Report submitted by: Bthiers@nybg.org
Report Submitted on: 03/18/2014 - 14:30

Progress in Digitization Efforts

Specimens added to the MycoPortal: since Jan 28, 2014: 29,064
Total specimens in the MycoPortal: 1,603,825
Two new non-funded institutions or projects have begun contributing their data to the MycoPortal: University of California at Santa Cruz and Mushroom Observer, a Citizen Science website for Mycology.

Share and Identify Best Practices and Standards (including Lessons Learned)

Participation in Source Materials Documentation workshop – Thiers shared experiences with digitizing ancillary material from the MaCC project in the workshop held 9-12 March 2014 at Yale University.
NYBG staff recently provided training in how to set up and manage a digitization program for the staff of Longwood Gardens herbarium.
NYBG Biodiversity information management staff have written a proposal to develop an on-line course that would teach NYBG digitization fungi for vascular plants, algae, bryophytes and lichens and fungi

Identify Gaps in Digitization Areas and Technology

This is a very active area of work across all our TCN and other digitization projects at the moment. We have a workflow for imaging, using OCR on the label text, and storing the OCR result in the data record. We have workflows in development for populating collector names (and sometimes collector number and date values) What we would like to develop is a way to identify the most specific "georeferenceable" text strings in the OCR output [i.e., the specific locality], and then from the georeference values, backfill the higher geographic categories, e.g., county/municipality, state/province, and country. Currently we are lacking a method for identifying and isolating the georeferenceable specific locality, as well as a streamlined method for backfilling the georeferenced sites with the valus for the higher geographical categories

Share and Identify Opportunities to Enhance Training Efforts

We have written a proposal to develop an on-line course that would teach NYBG digitization fungi for vascular plants, bryophytes and lichens and fungi
Kim Watson has agreed to participate in small herbarium workshop.
Thiers has agreed to give a webinar for the Small Collections Network on 12 May

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

Our collaboration with Genbank continues – Genbank numbers are now included in records for those specimens whose sequences have been uploaded to GenBank. Conversely, a link to the specimen record in MycoPortal now exists from GenBank. We are very excited about this collaboration because it not only addresses the problem of poor citation of specimens in GenBank, but also further imbeds the MycoPortal in the standard work practices of mycologists, which is key to the sustainability of this resource.
Semi-automated workflow effort going on internally at NYBG includes staff here from three TCNs: Tritrophic Digitization, Lichens, Bryophytes and Climate Change, and Macrofungi
We are collaborating on a Genealogy of Life proposal with a team of mycologists who have been involved in building the Fungal Tree of Life, to combine specimen data, phylogenetic data, and descriptive data in preparation for a project to document all species of Macrofungi on earth.

Share and Identify Opportunities and Strategies for Sustainability

Our strategy for sustainability is as follows:
1) Make the MycoPortal an indispensible tool for mycological research by linking it to GenBank (see above), and making upload of specimen data into the MycoPortal a requirement for publication in Mycologia, the journal of the Mycological Society of America. Discussions have started on GenBank portion of this strategy, and will be started with the editor of Mycologia at the annual MSA meeting in August.
2) Continue the reach of the MycoPortal beyond macrofungi. Dr. Andrew Miller of the Illinois Natural History Survey is preparing a proposal to digitize microfungi to be added to the MycoPortal. Broadening the user base will help sustain the project. Although very highly ranked, this proposal was not funded in this TCN round, however the proposal will be re-submitted next year.
3). Internationalization of the MycoPortal. Soon we will add data from non North American herbaria to the MycoPortal; we hope this will stimulate continued discussion of the development of complementary projects in Asia, Europe and South America that further broaden the scope of the MycoPortal
4) Management of the Portal beyond the current grant: My dream is to have the MycoPortal Management become a standing committee of the Mycological Society of America, and that they will allow donations above their current membership rates to support the MycoPortal. I hope to start discussions with members of the Executive Committee of the Society about this at the MSA meeting in June 2014

Other Progress (that doesn't fit into the above categories)

Nothing to report

Attachment

SOUTHWEST COLLECTIONS OF ARTHROPODS NETWORK (SCAN): A MODEL FOR COLLECTIONS DIGITIZATION TO PROMOTE TAXONOMIC AND ECOLOGICAL RESEARCH

Report submitted by: neilscobb@gmail.com
Report Submitted on: 03/19/2014 - 00:20

Progress in Digitization Efforts

See attached file

Share and Identify Best Practices and Standards (including Lessons Learned)

See attached file

Identify Gaps in Digitization Areas and Technology

See attached file

Share and Identify Opportunities to Enhance Training Efforts

See attached file

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

See attached file

Share and Identify Opportunities and Strategies for Sustainability

See attached file

Other Progress (that doesn't fit into the above categories)

See attached file

Attachment

https://www.idigbio.org/sites/default/files/webform/tcn-reports/SCAN_Mar_2014.docx

Southwest Collections of Arthropods Network Update

March 25, 2014

Neil Cobb

Progress in Digitization Efforts:

We are on target to meet our second-year quota for digitizing labels from pinned specimens. Table 1 presents three sets of statistics as of March 18, 2014. These include data from institutions that are funded by SCAN, institutions that are entering data into the SCAN portal but not funded by SCAN, and the total records in the SCAN portal. Our total records have actually decreased since last fall, 2013 because most of the MCZ records were pulled by Harvard University. These Harvard records will be made available through iDigBio.

Table 1. Number of specimen records digitized and associated summary statistics. From http://symbiota1.acis.ufl.edu/scan/portal/collections/misc/collstats.php

	SCAN funded	SCAN non-funded	TOTAL SCAN
# Specimen Records	465,928	71,890	537,818
# Georeferenced	329,601	27,820	323,409
# Identified to species	330,256	48,384	360,377
# Families	662	257	686
# Genera	6,210	2,136	7,024
# Species	13,573	5,216	16,659
% Georeferenced	71%	39%	60%
% Ided to Species	71%	67%	67%

We have also started creating high-resolution images taken by a subset of SCAN museums that are committed to producing specimen images. Table 2 lists the number of images posted on SCAN by theses participating museums. Our goal is to produce ~16,000 images suites. An image suite consists of 1-5 images representing different aspects of a specimen. This will translate into approximately 40,000 images. We are currently behind on our projections due to unexpected logistical challenges but we expect to greatly increase our productivity over the summer, 2014.

Table 2. Number of images posted on SCAN portal from SCAN museums that are focused on producing high-resolution images of specimens. Data are recorded from http://symbiota1.acis.ufl.edu/scan/portal/imagelib/photographers.php

Institution	# High-Resolution Images
Arizona State University	991
Colorado State University	46
Northern Arizona University	929
Denver Museum of Nature and Science	512
University of New Mexico	36
Northern Arizona University - NPS	673
New Mexico State University	707
Texas Tech University	56
University of Colorado at Boulder	0
TOTAL	**3950**

Share and Identify Best Practices and Standards (including Lessons Learned):
We are identifying best practices on a weekly basis and sharing those with respective people within SCAN.

Identify Gaps in Digitization Areas and Technology:
We need to harvest additional data (i.e. beyond SCAN) to better understand the biogeography of arthropod taxa. We are partially meeting this need by incorporating GBIF into the SCAN database.

Share and Identify Opportunities to Enhance Training Efforts:
Nothing new to report, we are working on activities already described in previous reports

Share and Identify Collaborations with other TCNs, Institutions, and Organizations:
We are primarily working with Tri-Trophic TCN in order to develop questions for analyzing ADBC data. We are working with Pam Soltis and Charlotte Germain on collaborative ecological niche modeling and biodiversity issues.

Share and Identify Opportunities and Strategies for Sustainability:
The next test will be this spring when Colorado State University finishes with their SCAN funds and initiates a program to digitize new material.

Other Progress (that doesn't fit into the above categories): We are starting to share North American data from other sources to increase the quantity of data. These will greatly increase the usability of the existing SCAN data, especially understanding species distributions and more complete species lists. We are hosting North American data from GBIF and are in the process of hosting data from Tri-Trophic TCN and other non-TCN arthropod data sets that have been harvested by iDigBio. With these additional records we are currently serving over 3.8 million records for 44,023 species.

INVERTNET: AN INTEGRATIVE PLATFORM FOR RESEARCH ON ENVIRONMENTAL CHANGE, SPECIES DISCOVERY AND IDENTIFICATION

Report submitted by: chdietri@illinois.edu
Report Submitted on: 03/19/2014 - 09:45

Progress in Digitization Efforts

A total of 14,433 images have now been uploaded and metadata are shared with iDigBio. Recent work has focused on finishing construction and testing of 14 drawer digitization systems for the U of Illinois and collaborating InvertNet institutions. A problem with the camera head hardware (the original hardware was difficult to control in certain positions) has delayed completion and delivery of the systems but a solution has been identified and is being implemented. The InvertNet cyberinfrastructure team (led by co-PI N. Sobh) upgraded InvertNet to the latest version of HUBzero and implemented several changes to the website suggested by collaborators at our recent workshop to improve site navigation and useability. They also upgraded our storage capacity to be able to handle storage of whole-drawer images (100 TB of cloud storage capacity), consolidated web services for the annotation tools and image viewer, and implemented back-end tools for management of the hierarchical taxonomic tag system. The image analysis team (co-PI Hart and CS PhD student J. Lu) has made significant progress on 3D reconstruction as a result of improved camera settings and image segmentation.

Share and Identify Best Practices and Standards (including Lessons Learned)

Lesson learned: never trust an engineer to give an accurate estimate of how long it will take to build a robot.

Identify Gaps in Digitization Areas and Technology

Nothing to report.

Share and Identify Opportunities to Enhance Training Efforts

Nothing to report.

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

Share and Identify Opportunities and Strategies for Sustainability

Other Progress (that doesn't fit into the above categories)

Attachment

North American Lichens and Bryophytes: Sensitive Indicators of Environmental Quality and Change

Report submitted by: cgries@wisc.edu
Report Submitted on: 03/19/2014 - 10:49

Progress in Digitization Efforts

As of March 2014 the number for the LBCC are as follows:
Lichens: http://lichenportal.org
Herbaria actively submitting images or key stroked records to the portal: 51
Specimen records in portal: 1,199,915 (up by 43964 since January 2014)
Specimen records with label images: 502,591 466,360 (36231 labels have been imaged since January 2014)

Bryohpytes http://bryophyteportal.org
Herbaria actively submitting images or key stroked records to the portal: 47
Specimen records in portal: 1,781,403 (up by 86840 since January 2014)
Specimen records with label images: 681,114 (162899 labels have been imaged since January 2014)

Share and Identify Best Practices and Standards (including Lessons Learned)

nothing to share

Identify Gaps in Digitization Areas and Technology

We had trouble with Symbiota's response time during heavy transcription traffic. This may be due to server speed. This is currently being worked on and will hopefully be resolved soon as we are ramping up transcribing.

Share and Identify Opportunities to Enhance Training Efforts

We are preparing to run online training sessions starting in early May. This will include general Symbiota training for collections managers as well as more specific lichen and bryophyte label transcription training.
A Symbiota training workshop is scheduled for the Botany 2014 meetings in Boise, Idaho July 27, 2014.

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

Share and Identify Opportunities and Strategies for Sustainability

Other Progress (that doesn't fit into the above categories)

We recently held our annual project meeting at Arizona State University in Temp, AZ. Several collaborators sent representatives and we were able to invite several representative from small collections for which labels are imaged by the collaborating imaging centers. Intensive training in the use of Symbiota interfaces was conducted for collections managers. Melody Basham gave a short presentation on her outreach project and the response was enthusiastic. Jennie Kluse from Louisiana agreed to become the liaison between LBCC and Melody's project.

Attachment

PLANTS, HERBIVORES AND PARASITOIDS: A MODEL SYSTEM FOR THE STUDY OF TRI-TROPHIC ASSOCIATIONS

Report submitted by: moon@begoniasociety.org
Report Submitted on: 03/19/2014 - 11:35

Progress in Digitization Efforts

917,890 new insect records digitized
1,183,076 complete aggregated plant records
393,172 additional plant skeletal records aggregated

Share and Identify Best Practices and Standards (including Lessons Learned)

* Melissa Tulig and NYBG are in discussions with iDigBio concerning best practice for them to deposit data into iDigBio. The focus is geared toward enabling institutions to submit directly to iDigBio.

* Entomological Collections Network (ECN- Katja Seltmann officer from TTD) is actively engaged with Gil Nelson to link ECN directly with iDigBio for communication about collections and dissemination of information.

Identify Gaps in Digitization Areas and Technology

* Services and download
* expression of one to many relationships
* needs to be international in scope; we are finding the geographic limitations are a barrier when using data for potential research

Share and Identify Opportunities to Enhance Training Efforts

* On March 10th, Mari Roberts gave a presentation on our project and the botany Symbiota Portal to several volunteer tour guides who will now spread the word during their scheduled programs at NYBG.

* Entomological Collections Network plans on webcasting next years meeting

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

* Working with Ed Gilbert, SCAN, Cyberinfrastructure working group, Encyclopedia of Life, and our partner institutions to facilitate capture of tertiary relationships (host, plant and parasite). Encyclopedia of Life is interested in our data for the TraitBank they developed and Katja Seltmann is working directly with EOL to facilitate this ingestion.

* Katja Seltmann has engaged Chris Munall (GloBI and Practical Relations Ontology) to include host relationships as defined by the data into these ontologies. We are additionally working with Jennifer Hammock of EOL to make sure these data are sharable with EOL.

* TTD is hosting a Data Mining and Distribution Modeling Workshop June 20-22 in Riverside California. As we prepare the data for this workshop we are collaborating with a number of individuals and groups. This includes a number of graduate students, Matthew Yoder (TaxonWorks, SpeciesFile), Neil Cobb (SCAN), and ecologists and data modelers (both invited and from local institutions- TBA). A formal announcement regarding the workshop is coming soon.

* Richard Rabeler (University of Michigan PI) visited The New York Botanical Garden 13--14 March to meet with Mari Roberts, Jonathan Toll, Melissa Tulig, Kim Watson, and Robert Naczi. Our meetings covered best practices for populating records from images of herbarium specimens, and how to involve the University of Michigan team in populating records.

Rich expects imaging will be completed at Michigan within the next few months, at which time work will commence on populating records for MICH specimens.

Share and Identify Opportunities and Strategies for Sustainability

Other Progress (that doesn't fit into the above categories)

Attachment

Fossil Insect Collaborative: A Deep-Time Approach to Studying Diversification and Response to Environmental Change

Report submitted by: Dena@colorado.edu
Report Submitted on: 03/19/2014 - 11:35

Progress in Digitization Efforts

-VMNH hired Ashley Kendrick as an intern to help with digitization efforts.

-All YPM fossil insects (8,414) have been cataloged although a high percentage (~80%) have not been imaged (a devoted insect photographer has been identified for summer employm

Share and Identify Best Practices and Standards (including Lessons Learned)

Nothing new to report.

Identify Gaps in Digitization Areas and Technology

Nothing new to report.

Share and Identify Opportunities to Enhance Training Efforts

Chris Norris presents webinar as part of C4P series. Discussed PaleoPortal, the Fossil Insect Digitization Project iDigPaleo and iDigBio.

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

Butts gave a talk for the CT Entomological Society (February 21, 2014) entitled “The Fossil Record of Insects: Collections of the Yale Peabody Museum” which showcased the work of the Fossil Insect Collaborative TCN at Yale.

Butts participated in the idigbio “Original Source Materials Workshop” held at Yale University (March 10-12, 2014).

Norris’ presentation for the Collaboration and Cyberinfrastructure for Paleogeosciences (C4P) webinar series about iDigPaleo in the context of future development of PaleoPortal sparked discussions with Kerstin Lehnert's GeoSamples group. Smith, Norris and Lehnert are now meeting to discuss the development of a common framework for interacting with biotic and abiotic collections records in the classroom and other contexts.

Share and Identify Opportunities and Strategies for Sustainability

Smith went to visit with NSF Program Directors and discussed TCN collaborative projects related to database infrastructure (ADBC and EarthCube), as well as opportunities for synergies related to education and outreach (SGP and HER). Also part of visit related to STEPPE office.

Other Progress (that doesn’t fit into the above categories)

Nothing new to report.

Attachment

Mobilizing New England Vascular Plant Specimen Data to Track Environmental Change

Report submitted by: p_sweeney@att.net
Report Submitted on: 03/19/2014 - 13:00

Progress in Digitization Efforts

Capture of collection level-information (i.e., "pre-capture") is the primary activity. At this stage approximately 700,000 specimens have been pre-captured -- with at least current identification captured. Testing & configuration of one high-throughput digitization apparatus (conveyor system) was completed in late November - primary digitization has been taking place since early December. A second unit will be installed during the end of March or April. Light-boxes are deployed at three institutions, and primary digitization has begun at those institutions. Approximately 57,000 images and full metadata records have been captured.

Share and Identify Best Practices and Standards (including Lessons Learned)

nothing to report

Identify Gaps in Digitization Areas and Technology

nothing to report

Share and Identify Opportunities to Enhance Training Efforts

nothing to report

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

We continue to collaborate with, iPlant, the FilteredPush project, the Symbiota team, and iDigBio.

Share and Identify Opportunities and Strategies for Sustainability

nothing to report

Other Progress (that doesn't fit into the above categories)

Yale developed a town-level gazetteer for New England towns. The gazetteer contains approximately 2000 records and has latitude, longitude, and uncertainty for all recognized New England towns. These data will be used to batch georeference specimen occurrence records to the town level.

Attachment

Developing a Centralized Digital Archive of Vouchered Animal Communication Signals

Report submitted by: msw244@cornell.edu
Report Submitted on: 03/25/2014 - 12:45

Progress in Digitization Efforts

In the first seven months two major thematic network partner NHC audio collections were fully digitized, KU ornithology collection of Mark Robbins covering over 500 physical specimens and the Oecanthus spp. recordings of Dartmouth researcher Laurel Symes, some 665 physical specimens. Digitization has commenced on thematic network partner Yale's avian audio recordings by Kristof Zyskowski and KU herpetological audio recordings by William Duellman.

Share and Identify Best Practices and Standards (including Lessons Learned)

The Macaulay Library uses an audio archival standard of 96kHz 24-bit, the audio standard recommended by Sound Directions: Best Practices for Audio Preservation <http://www.dlib.indiana.edu/projects/sounddirections/papersPresent/index.shtml> and a standard adopted by leading audio archival institutions such as the Library of Congress and The British Library.

Identify Gaps in Digitization Areas and Technology

There are no accepted standards for the preservation and subsequent presentation of electric organ discharges produced by e-fish. Macaulay Library audio archival staff are developing archival and web-proxy presentation protocols in collaboration with e-fish researchers that will serve as a model formats for EODs.

Share and Identify Opportunities to Enhance Training Efforts

ML personnel have interacted one-on-one with network NHC principals from California Academy of Sciences, Dartmouth, KU, LSU, Texas A&M, and Yale on topics ranging from audio recording technology to metadata structure. LSU personnel are scheduled to visit ML in the summer.

Share and Identify Collaborations with other TCNs, Institutions, and Organizations

No collaborations with other TCNs at this time, but we are exploring data-cleaning and geo-referencing capabilities developed by other TCNs.

Share and Identify Opportunities and Strategies for Sustainability

National-level reporting of iDigBio achievements, e.g. Heretofore resources now available to the public.

Other Progress (that doesn't fit into the above categories)

A forthcoming publication describing a new species of mormyrid fish references forty EOD recordings deposited with the Macaulay Library by thematic partner Carl Hopkins of CUMV/Cornell.

Attachment