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Why This Workshop?

Overcoming Challenges for Imaging Fluid-preserved Vertebrates
Illinois Natural History Survey
Champaign, IL
15-16 March 2016

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Only One of 15 TCNs Includes Vertebrate Specimens

- 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 (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*) http://hasbrouck.asu.edu/symbiota/portal/index.php
- 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
- The Microfungi Collections Consortium: A Networked Approach to Digitizing Small Fungi with Large Impacts on the Function and Health of Ecosystems (MiCC)
- Documenting Fossil Marine Invertebrate Communities of the Eastern Pacific - Faunal Responses to Environmental Change over the last 66 million years (PCMIF)

Proposed Workshop Goals

1. Identify and come to agreement on the importance of and appropriate strategies and outcomes for imaging fishes and herps.

2. Develop proposed strategies for capturing trait data from images.

3. Determine if there is sufficient interest in this group to develop, write, and submit a TCN proposal focused on imaging fluid-preserved fishes and herps.

4. Outline the grand challenge research questions, goals, outcomes, and components of a potential TCN.

5. Content in day 1, lots of collaborative discussion and recording of our thoughts in day 2.

Planned Enabling Activities

Discuss imaging strategies (2D, 3D, CT), their relative importance and applications, and why there are so few images of vertebrate specimens, especially fishes and herps.

Explore the value of images for fluid-preserved veterbrates.

Review the current status of imaging and related digitization initiatives for fishes and herps.

Explore the use of images for science, systematics, and other purposes.

Explore the possibilities of extracting trait data from images.

Recording output into Google documents in our Google Folder.

Discussion and addition of agenda items?

Current agenda:
https://www.idigbio.org/wiki/index.php/Digitizing_Fluid-preserved_Vertebrate_Specimens#Agenda.2C_Day_1Tuesday.2C_March_15.2C_2016

Additions:
https://docs.google.com/document/d/1nkLlcIofDtWdz58mW096uOt6yo4x30FR123eCE0nR7U/edit


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