



# iDigBio

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.*

# Introduction to iDigBio

**3 February 2016  
SCRIPPS Digitization Meeting  
La Jolla, CA**

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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.

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.



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**Currently pursuing our 5<sup>th</sup> year of operation.**

**Recently renewed for a second 5 years.**



## **The Alphabet – A Few Acronyms**

**ADBC** (Advancing Digitization of Biodiversity Collections)

**TCN** (Thematic Collections Network)

**PEN** (Partner to Existing Network)

**CSBR** (Collections in Support of Biological Research)

**NIBA** (Network Integrated Biocollections Alliance)

**BCoN** (Biodiversity Collections Network)

**RCN** (Research Coordination Network)

## **Digitization**

**Converting analog specimen data to digital format, to include transcription of text data (labels, catalogs, field notes, etc.) and recording specimen images.**



# Mandate and Responsibility

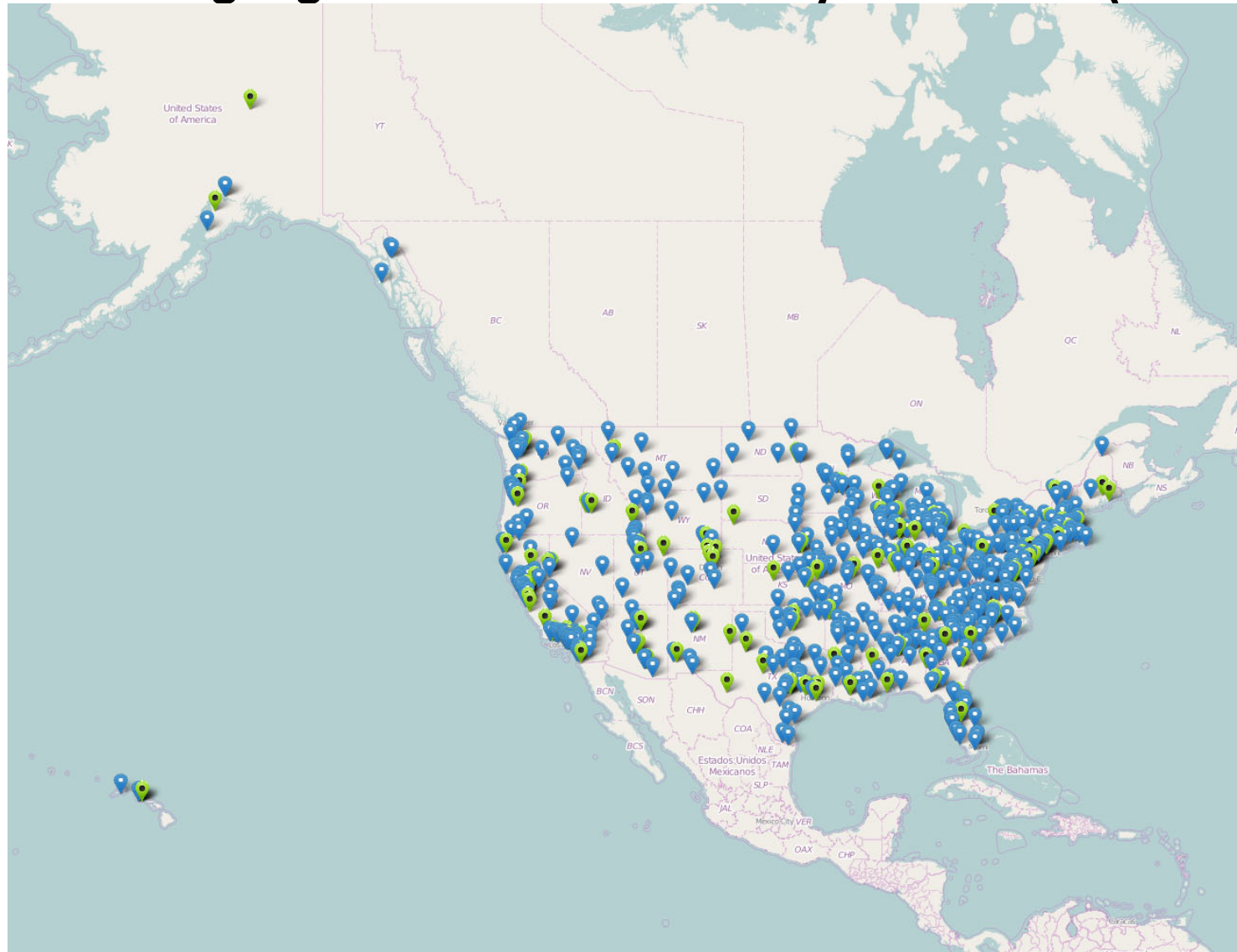
- Provide/facilitate portal access to collections data
  - Make information available and discoverable
  - Label Data and images
- Enable digitization and research
  - Facilitate digitization workflows
  - Oversee implementation of standards and best practices for digitization
  - Allow for data discovery 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



## Fifteen Thematic Collections Networks (TCNs), 15 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> (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)

## Advancing Digitization of Biodiversity Collections (ADBC)



To date: 15 TCNs, ~300 unique institutions, 50 states

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## 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





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