



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.

Welcome!

And a few logistical details

Planning Committee:

Jeff Brown (Sagehen Creek)

Kevin Browne (University of California Natural Reserve System)

Faerthen Felix (Sagehen Creek)

Erica Krimmel (Chicago Academy of Sciences; Sagehen Creek)

Gil Nelson (iDigBio/FSU)

Hilary Swain (Archbold)

Rick Williams (Rocky Mountain Biological Laboratory)

Other iDigBio: David Jennings, Molly Phillips

Wiki: https://www.idigbio.org/wiki/index.php/OBFS_Field_Station_Digitization

Efficiency: Starting on time; staying on track; discussion sessions built in

Lunch/breaks: catered

Origin of this workshop

Introduction to iDigBio

16 September 2015
Rocky Mountain Biological Laboratory
Gothic, CO

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!





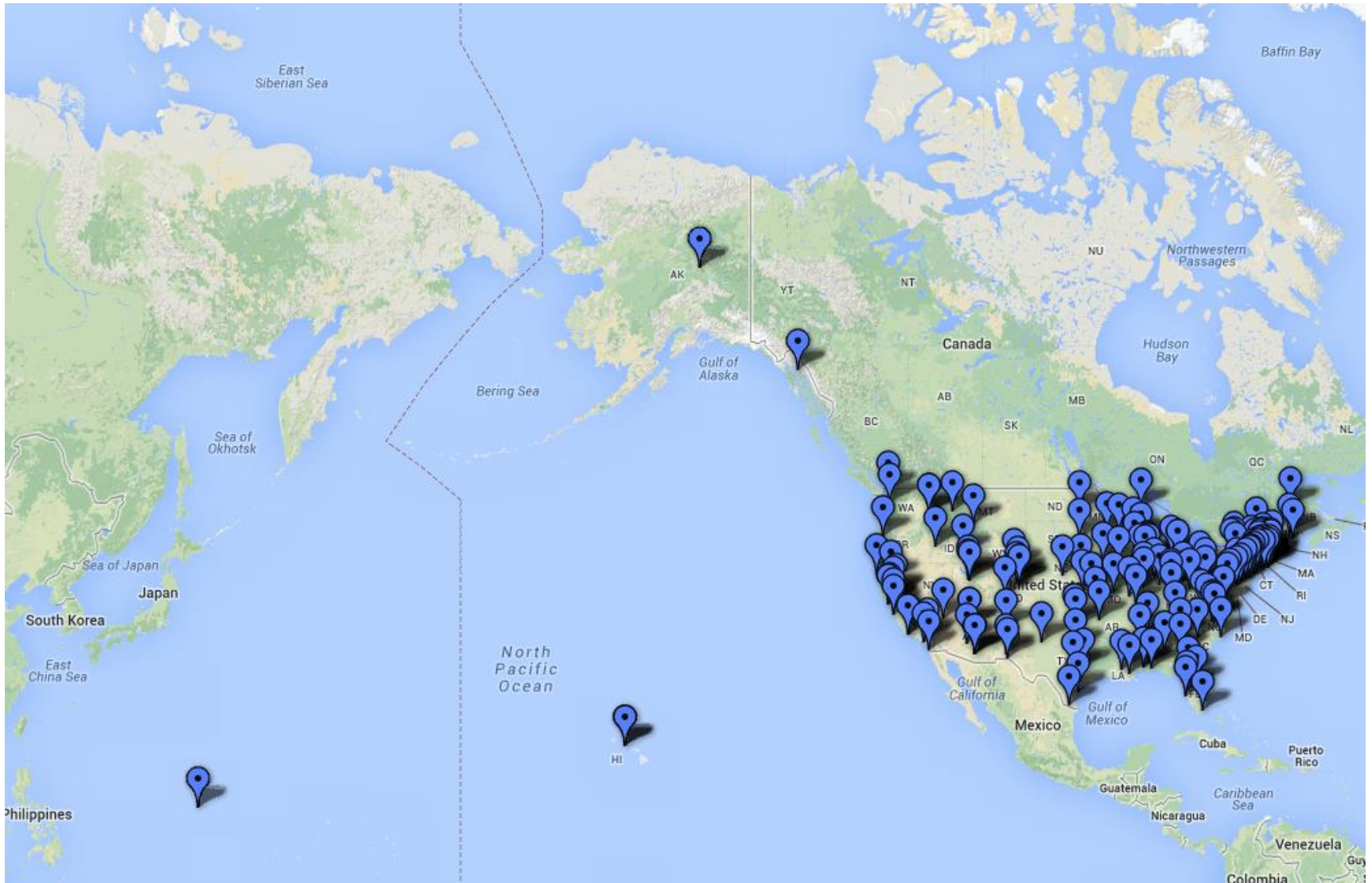
In an effort to make these collections universally accessible to taxonomists, ecologists, researchers, and the general public, in 2011 the U.S. National Science Foundation launched a \$100 million, 10-year Advancing Digitization of Biodiversity Collections program and named the University of Florida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

Fifteen Thematic Collections Networks (TCNs), 10 PENs

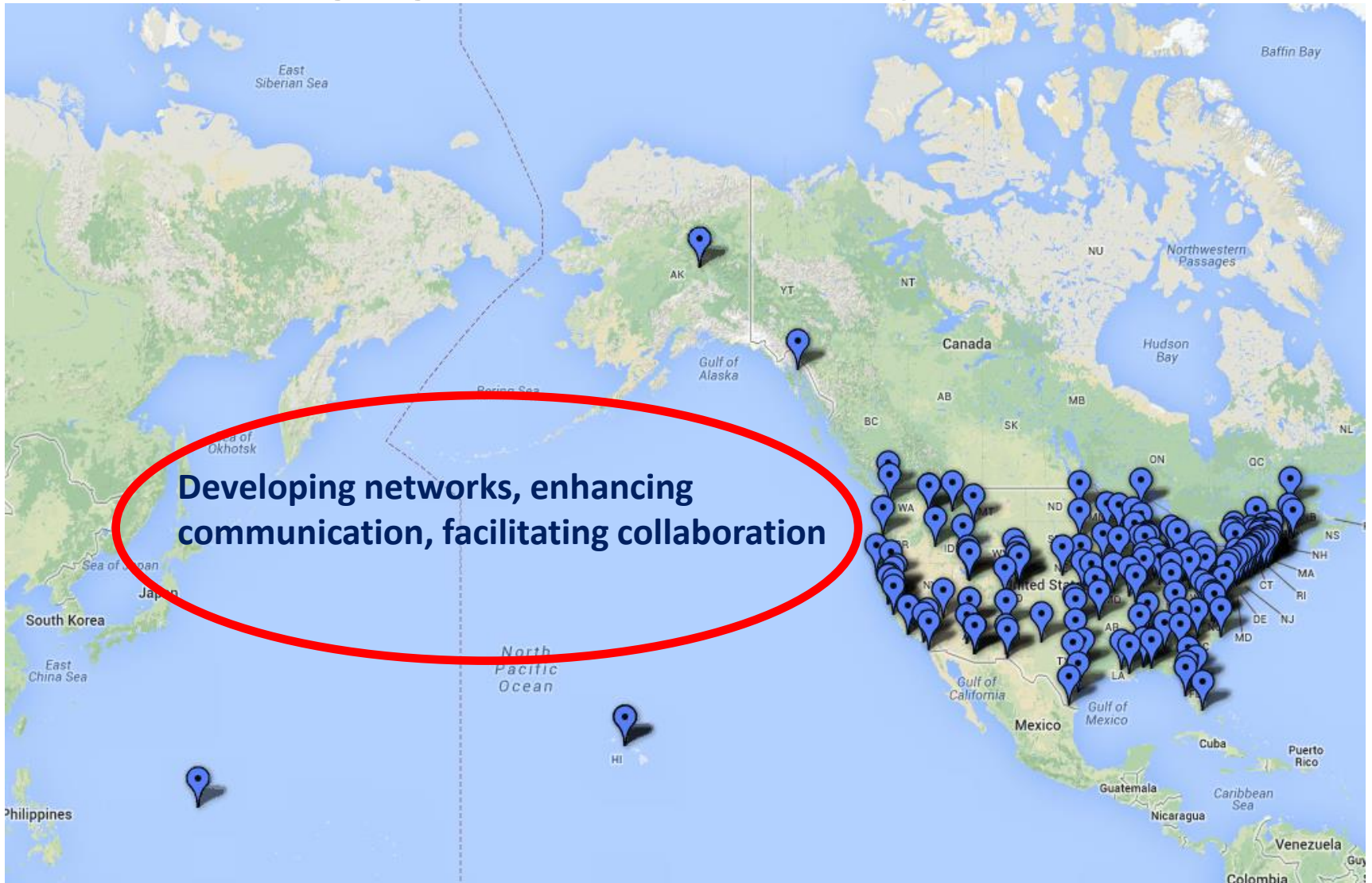
- InvertNet: An Integrative Platform for Research on Environmental Change, Species Discovery and Identification (*Illinois Natural History Survey, University of Illinois*) <http://invertnet.org>
- Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-Trophic Associations (*American 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)

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



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

Advancing Digitization of Biodiversity Collections (ADBC)



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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

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.

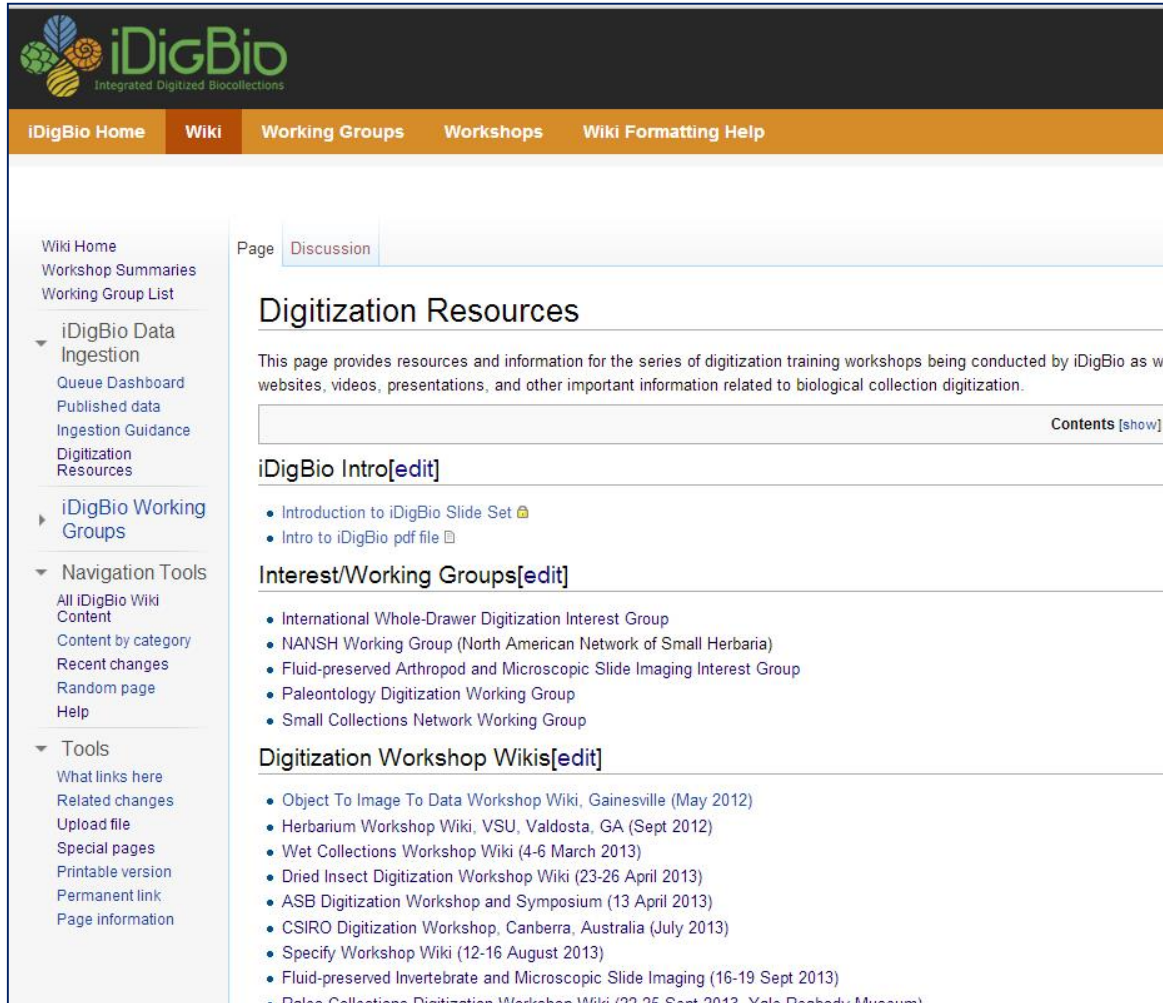


- DROID (Developing Robust Object->Image->Data, May 2012)
- Herbarium digitization (Valdosta State, September 2012)
- Fluid-preserved collections digitization (U. Kansas, March 2013)
- Dried insect collections digitization (Field Museum, April 2013)
- Collections Digitization (West Virginia, ASB, April 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)



The screenshot shows the iDigBio Wiki interface. At the top is the iDigBio logo and navigation tabs: iDigBio Home, Wiki, Working Groups, Workshops, and Wiki Formatting Help. A left sidebar contains a 'Wiki Home' section with links to Workshop Summaries and Working Group List, followed by 'iDigBio Data Ingestion' (Queue Dashboard, Published data, Ingestion Guidance, Digitization Resources), 'iDigBio Working Groups', 'Navigation Tools' (All iDigBio Wiki Content, Content by category, Recent changes, Random page, Help), and 'Tools' (What links here, Related changes, Upload file, Special pages, Printable version, Permanent link, Page information). The main content area has tabs for 'Page' and 'Discussion'. The title is 'Digitization Resources'. Below the title is a paragraph: 'This page provides resources and information for the series of digitization training workshops being conducted by iDigBio as well as websites, videos, presentations, and other important information related to biological collection digitization.' There is a search box and a 'Contents [show]' link. The page is divided into sections: 'iDigBio Intro[edit]' with a list of links (Introduction to iDigBio Slide Set, Intro to iDigBio pdf file); 'Interest/Working Groups[edit]' with a list of groups (International Whole-Drawer Digitization Interest Group, NANSH Working Group, Fluid-preserved Arthropod and Microscopic Slide Imaging Interest Group, Paleontology Digitization Working Group, Small Collections Network Working Group); 'Digitization Workshop Wikis[edit]' with a list of workshop wikis (Object To Image To Data Workshop Wiki, Herbarium Workshop Wiki, Wet Collections Workshop Wiki, Dried Insect Digitization Workshop Wiki, ASB Digitization Workshop and Symposium, CSIRO Digitization Workshop, Specify Workshop Wiki, Fluid-preserved Invertebrate and Microscopic Slide Imaging, Paleo Collections Digitization Workshop Wiki).

Wikis

Working groups

Listservs



The screenshot shows the 'iDigBio Working Groups' page. It has a title 'iDigBio Working Groups' and a 'Contents [show]' link. The main content is a list of working groups and interest groups, organized into three main categories: '1 Overview', '2 Active Working Groups', and '3 Inactive Working Groups'. Under '2 Active Working Groups', there is a list of 16 sub-groups: 2.1 Augmenting OCR (aOCR), 2.2 Biodiversity Informatics Management (BIM) Working Group, 2.3 Cyberinfrastructure (CYWG), 2.4 Developing Robust Object to Image to Data (DROID1), 2.5 Developing Robust Object to Image to Data (DROID2), 2.6 Developing Robust Object to Image to Data (DROID3): 3D Objects and Things in Spirits, 2.7 Education & Outreach (E&O), 2.8 Georeferencing Working Group (GWG), 2.9 International Whole-Drawer Digitization Interest Group (WDD), 2.10 Minimum Information Standards, Authority Files, & Semantics (MISC), 2.11 NANSH Working Group (NANSH), 2.12 Paleo Digitization Working Group (PaleoDigi), 2.13 Paleontology (Paleo), 2.14 Public Participation in Digitization (CitSci), 2.15 Strategic Communication Interest Group, and 2.16 Website Content Providers Editorial Board and Interest Group. Under '3 Inactive Working Groups', there are two sub-groups: 3.1 Authority Files and 3.2 Intellectual Property Policy. At the bottom, there is an 'Overview[edit]' section with a paragraph: 'iDigBio supports a number of Working Groups and Interest Groups. Several working groups are focused on the development, and improvement activities. This page provides an overview of both current (active) and disbande... The section "Overlap with Other Working Groups" should be used to list subject areas that may duplicate so... then collaboration between working groups is warranted for those tasks.'

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