



## Wet Collections Digitization Workshop March 4–6, 2013 University of Kansas Lawrence

This workshop is the second in a series of preparation-specific workshops focusing on organizing, launching, maintaining, and enhancing a biological collections digitization program. The primary goal is to prepare participants with the necessary skills and knowledge to launch or maintain a digitization program individually, through collaboration with an existing Thematic Collections Network (TCN) or Partner with an Existing Network (PEN), or through collaboration with iDigBio. The target audience includes wet collections managers, curators, directors, and digitization specialists.

Workshop content includes: 1) an overview of iDigBio, ADBC, and nationwide digitization activities, 2) how to organize and launch a digitization program, 3) a detailed overview of digitization tasks, 4) use and configuration of imaging systems and lighting, 5) an introduction to and overview of several database management systems and related tools, 6) demonstration of several imaging software packages, 7) a consideration of image file-naming strategies, 8) how to develop effective workflows and protocols, 9) strategies for evaluating hardware and software, 10) a detailed overview of procedures for image and data capture, including a detailed overview of image types, image manipulation, and image conversion, 11) strategies and considerations for georeferencing, including use of online collaborative tools, 12) assigning globally unique identifiers to records and objects, and 12) methods for moving digitized data to the internet via data aggregators, harvesters, and portals.

Workshop planners include: Gil Nelson (iDigBio), Andy Bentley (KU), Nelson Rios (Tulane), and Rob Robins (FLMNH), and Mark Sabaj-Perez (Academy of Natural Sciences)

Links to the workshop Wiki and workshop handouts and resources can be accessed through a link at: <a href="https://www.idigbio.org/wiki/index.php/Digitization\_Training\_Workshops">https://www.idigbio.org/wiki/index.php/Digitization\_Training\_Workshops</a>

The workshop's collaborative workshop notes page, which can be edited by all workshop participants, can be found at the following link and via the Wiki page, above: 5 March: <u>http://tinyurl.com/WetNotes1</u> 6 March: <u>http://tinyurl.com/WetNotes2</u>

## Agenda Day 1 – March 4, 2013

| Time    | Activity                | Responsible                  |
|---------|-------------------------|------------------------------|
| Various | Vans pick up at airport | Gil Nelson,<br>Andy Bentley, |





|                |  | Cathy Bester                                     |
|----------------|--|--|
| 6:00–7:00 p.m. | Reception & Welcome<br>Venue: Museum<br>Panorama<br>Participant introductions<br>Heavy Hors d'oeuvre | Leonard Krishtalka<br>Andy Bentley<br>Gil Nelson |
| 7:00–9:00 p.m. | Dinner (on your own)   |  |

## Day 2 – March 5, 2013

| Time                  | Activity/Venue  | Responsible   |
|-----------------------|---|---|
| 6:00–8:00 a.m.        | Breakfast   | Oread   |
| 8:15–8:30 a.m.        | Commons<br>Orientation<br>• Workshop logistics<br>• Introduction to iDigBio<br>• overview of existing TCNs  | Gil Nelson  |
| 8:30-9:45 a.m.        | <ul> <li>Getting Started:</li> <li>Why digitize,</li> <li>Startup costs and<br/>considerations,</li> <li>Importance of institutional and<br/>administrative support,</li> <li>IT support,</li> <li>Anticipated and unanticipated<br/>benefits,</li> <li>Anticipated and unanticipated<br/>obstacles,</li> <li>Leveraging institutional<br/>resources,</li> <li>Global decisions for launching<br/>and sustaining a digitization<br/>program,</li> <li>Digitization task clusters</li> <li>Image and data</li> <li>Personnel recruitment,</li> <li>Extent of additions to<br/>professional workload,</li> <li>Leveraging the library and<br/>information sciences</li> </ul> | Gil Nelson (30 min)<br>Chris Johnson (15 min)<br>Sally Bjork (15 min)<br>Sandra Brantley (15 min) |
| 9:45–10:00 a.m.       | Coffee Break  |   |
| 10:00 a.m.–12:30 p.m. | <ul> <li>Venue: Commons<br/>Imaging <ul> <li>Scanning specimen-related<br/>35mm slides,</li> <li>InvertNet Imaging Station</li> <li>Software tools: Digital Photo<br/>Pro, Camera Control Pro, Nikon<br/>Capture NX2, Nikon View NX2,</li> </ul> </li> </ul>  | Mark Sabaj-Perez<br>Kyle Luckenbill<br>Chris Taylor<br>Laura Monahan                              |





|                 | <ul> <li>etc.,</li> <li>Lightroom, Photoshop,<br/>Aperture, Picasa Viewer, etc.</li> <li>Image storage formats (camera<br/>raw, jpg, tif, dng, etc.).</li> <li>Available capture devices<br/>(cameras, etc.) for various<br/>collections.</li> <li>Lighting.</li> <li>Image naming strategies.</li> <li>Image capture standards and<br/>common practices.</li> <li>Image processing dos and<br/>don'ts (color balance, cropping,<br/>saturation, contrast adjustment,<br/>etc.).</li> <li>Ethics of image enhancement.</li> <li>Stacking: Helicon Focus,<br/>AutoMontage, free software.</li> <li>Camera setup and use<br/>Archiving images (best formats),</li> <li>Simultaneous capture of label<br/>and specimen in a single image.</li> </ul> Hardware <ul> <li>Overview of what's available,</li> <li>Cameras &amp; lenses<br/>Photo Tanks ("squeeze boxes"),<br/>Copy stands, light<br/>boxes, diffusers, and related<br/>equipment,</li> <li>Lighting,</li> <li>Microscope and lenses,</li> <li>Computer equipment</li> </ul> |                           |
|-----------------|--|---------------------------|
| 12:30–1:30 p.m. | Lunch  |                           |
| 1:45–4:15 p.m.  | Museum Tours and<br>Demonstrations   | Andy Bentley              |
| 4:15–4:30 p.m.  | Coffee Break   |                           |
| 4:30–5:30 p.m.  | <ul> <li>Workflows and Protocols</li> <li>Elements of workflow design</li> <li>Importance of written protocols</li> <li>How to develop, write, and<br/>manage workflows</li> <li>Strategies for getting feedback<br/>on improvements from<br/>technicians</li> <li>Sample and suggested<br/>workflows</li> <li>Image to data vs data from<br/>specimens</li> <li>Workflow and data entry<br/>efficiencies</li> </ul>   | Gil Nelson<br>Sally Bjork |
| 6:00–8:00 p.m.  | Dinner   | On your own               |





## Day 3 – March 6, 2013

| Time             | Activity/Venue   | Responsible  |
|------------------|--|--|
| 6:00–8:00 a.m.   | Breakfast  | Oread  |
| 8:15–9:00 a.m.   | Digitization Workflows and<br>Protocols: Practical<br>Applications<br>UT & FoTX workflows<br>Oregon State workflows<br>Digitizing Field Books  | Gil Nelson<br>Andrew Short (15 min)<br>Jessica Rains (15 min)<br>Brian Sidlauskas (15 min) |
| 9:00–10:00 a.m.  | Identifying and moving<br>digitized objects to the web via<br>aggregators and harvesters<br>• GUIDs<br>• Darwin Core<br>• Collaborating with TCNs and PENs<br>• Contributing to iDigBio<br>• Data Aggregators<br>• Guidelines for selecting a database | Deb Paul   |
| 10:00-10:15 a.m. | Data cleaning and validation <ul> <li>Data cleaning</li> <li>Google Refine</li> </ul>  | Deb Paul   |
| 10:15–10:30 a.m. | Coffee Break   |  |
| 10:30–11:45 a.m. | <ul> <li>Database Overviews:</li> <li>Guidelines for evaluating collections databases</li> <li>Specify, including workbench for new and legacy data</li> <li>Migrating Excel to Specify</li> </ul>   | Andy Bentley   |
| 11:45–12:45 p.m. | Database overviews:<br>Symbiota<br>• Migrating Excel and other flat data<br>stores into Symbiota<br>• OCR advances and limitations<br>• Data emtry from ilabel mages   | Ed Gilbert   |
| 12:45–1:45 p.m.  | Lunch  |  |
| 1:45–2:45 p.m.   | Georeferencing <ul> <li>Geolocate</li> <li>Google Maps</li> </ul>  | Nelson Rios  |
| 2:45–3:00 p.m.   | Coffee Break   |  |





| 3:00–3:30 p.m. | Pre-digitization curation and<br>strategies for simultaneous<br>collection digitization and<br>management | Rob Robins                               |
|----------------|---|--|
| 3:30–4:30 p.m. | Discussion and Q&A  | Discipline specific<br>discussion groups |
| 4:30–5:00 p.m. | Wrap up   | Gil Nelson                               |
|                | Dinner (on your own)  |  |