

iDigBio wet collection workshop demonstration stations

Each demonstration/tour will be 30 minutes long running from 1:45pm to 4:15pm

Slot 1 – 1:45 to 2:15

Slot 2 – 2:15 to 2:45

Slot 3 – 2:45 to 3:15

Slot 4 – 3:15 to 3:45

Slot 5 – 3:45 to 4:15

We will send out the list of demo's/tours to all participants beforehand with descriptions of each (as below) and have them rank their top 5 out of the 7 after which we can assign participants to each station and have them rotate every 30 minutes.

Stations

1. Imaging station (Imaging Lab, 5th floor, Dyche hall) – Mark Sabaj/Kyle Luckenbill

Demonstration of laboratory and field specimen imaging techniques – mainly liquid immersion techniques in upright and horizontal photo tanks – using camera mount and copy stand with lights and the new ePhoto Plus photo box designed and distributed by MKDirect and used extensively by the herbarium community (<http://www.eboxbio.com/>).

- a. Camera setup and settings
- b. Image capture standards/common practices/do's and don'ts
- c. Immersion photo tank imaging (horizontal and vertical)
- d. ePhoto Plus (MK Direct) imaging box

2. Image post processing station (Imaging Lab, 5th floor, Dyche Hall) – Mark Sabaj/Kyle Luckenbill

Demonstration of photographic software techniques for stacking of images for greater focal depth, post processing, color and light correction and cleaning of images using numerous commercially available software packages.

- a. Helicon Focus
- b. Photoshop
- c. Adobe Illustrator
- d. Manufacturer software – Canon Digital Photo Professional, Nikon Capture NX2 and Camera Control Pro

3. Slide/photo/x-ray scanning station (Herp library, 4th floor, Dyche Hall) - ?? (Andrew Campbell)

A demonstration of slide, photo and x-ray scanning techniques using flatbed and dedicated slide scanning hardware. Examples of these will be available and processed during the demonstration.

- a. Scanning of slides, photos and x-rays using flatbed scanner and dedicated slide scanner

4. Entomology vial collection workflow (Wet Lab, 4th floor, Dyche Hall) – Andrew Short, Sarah Schmits

A demonstration of workflows employed by our entomology collection (specifically partners to the Invertnet ADBC grant) for digitization of insect specimens in vials of alcohol using imaging and the Specify 6 workbench. They are using a similar technique to that outlined here: <http://www.invertnet.org/resources/99/download/vial-scanning.pdf>.

- a. Workflow highlighting databasing of specimens in vials from label images
- b. Imaging of labels
- c. Entering of data into spreadsheet for importing using the Workbench
- d. Part of Invertnet project – materials here: <http://www.invertnet.org/>

5. Specify 6 collection workflow (Wet Lab, 4th floor, Dyche Hall) – Andrew Bentley

A demonstration of Specify 6 in action in our fish and tissue collections highlighting digitization of images, Genbank sequences, reference works and the utilization of the Specify 6 workbench for capturing data from the field.

- a. Fish voucher and tissue database outlining workflows for databasing specimens from field notes or from Excel spreadsheets through the Workbench. Also image attachments, DNA sequence data and reference work attachment augmentation of records.

6. Wet collection tour (Wet collection facility, 1-4th floors, Dyche Hall) – Andrew Bentley, Andrew Campbell

A tour of the KU Biodiversity Institute wet collections facility showcasing the 5 collections contained therein (fish, herps, mammals, birds, invertebrate zoology and entomology) together with our new cryogenic tissue storage facility. The tour will highlight facility design, specimen housing conditions, supplies used and collection statistics.

7. GeoLocate/georeferencing station (Biocomputational Lab, 5th floor, Dyche Hall) - Nelson Rios

A demonstration of the GeoLocate collaborative georeferencing engine used for the Fishnet2 collaborative georeferencing grant, to georeference localities for all partner providers. The Biodiversity Institute georeferencing technician, Katy Wichman, (one of 12 georeference

technicians in place at 12 institutions in the US for the grant) will be on hand along with Nelson Rios to lead participants through the collaborative process and answer any questions on georeferencing in general.