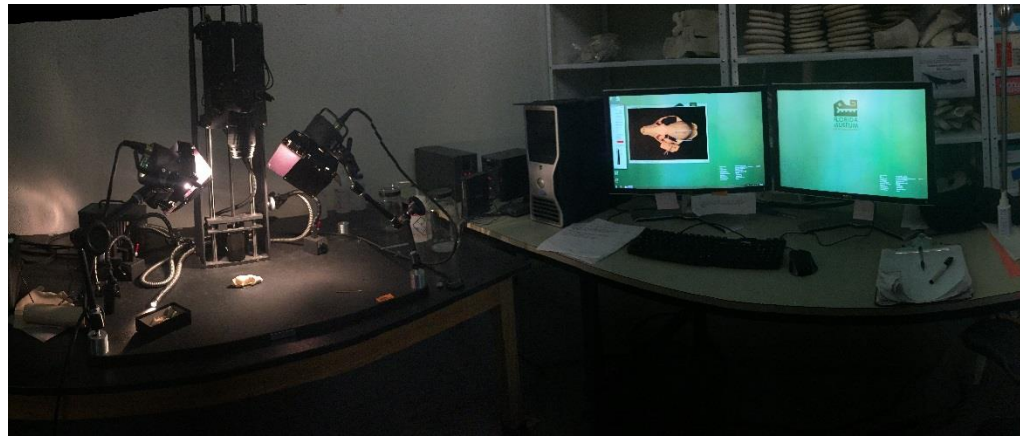


2D Imaging Workflows for Dry-Preserved Specimens (mammals and birds)

- Verity Mathis, Florida Museum of Natural History, University of Florida
 - Gil Nelson, iDigBio and Florida State University



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.

Dry vertebrate digitization video



Recap- Specimen selection

- Prioritize!
 - Type specimens
 - Rare
 - Age and sex differences
- Think about ease of access/reducing handling time/trips



Recap- Curation and staging

- Update the database
- Make repairs
- Quality check



Recap- Image capture

- Take the time to define naming conventions, file types
- Image stations can be as DIY or elaborate as you have the time, money, and personnel for.
- Chose neutral background, include scale bars, color bars
- Multiple views
- Focus stacking- time consuming so decide if worth it



Recap- Image processing

- Adjustments
- Photoshop or similar
- Converting & saving
(storage needs)



FLMNH Mammals- digitizing equipment

Canon 5D



Canon 40D (very tiny objects)



Multiple tripods



FLMNH Mammals- digitizing equipment

Image station setup by Visionary Digital



FLMNH Mammals- digitizing equipment



Software: CamLift: operates camera/live-view interface
Lightroom: file naming, review images, fine-tune
Helicon Focus: image stacking
Photoshop: post-processing

Specimen Counts

Plants (~10,500 specimens)

Birds (~4,000 specimens)

Mammals (~1,000 specimens)

Butterflies (~1,500 specimens)





Unequalled opportunity
for completeness and detail

Equipment/Software list and imaging/stacking protocol is on the wiki:

https://www.idigbio.org/wiki/index.php/IDigBio_Vertebrate_Digitization_Workshop_Two



Imaging station

Nikon D3x
Full frame
24.5 megapixel
Live view



Nikon 810
36.3 megapixel
Full frame
Live view



Kaiser Copy Stand RSX with RTX Arm



Selection Criteria

- Two images of each specimen (male/female)
- All specimens of special interest (T&E, endemic, e.g. RCW, Sherman Fox Squirrel)
- Any specimens cited in publication
- Specimens with bill deformity or other morphological abnormalities

Views

- Birds: dorsal, ventral, lateral
- Mammals: dorsal

Passerina ciris









no 920
Lorraine Semple
100 E. 5th St. Wichita
Wichita, Kan. 67211
1948
908
1959

Camera Control Pro

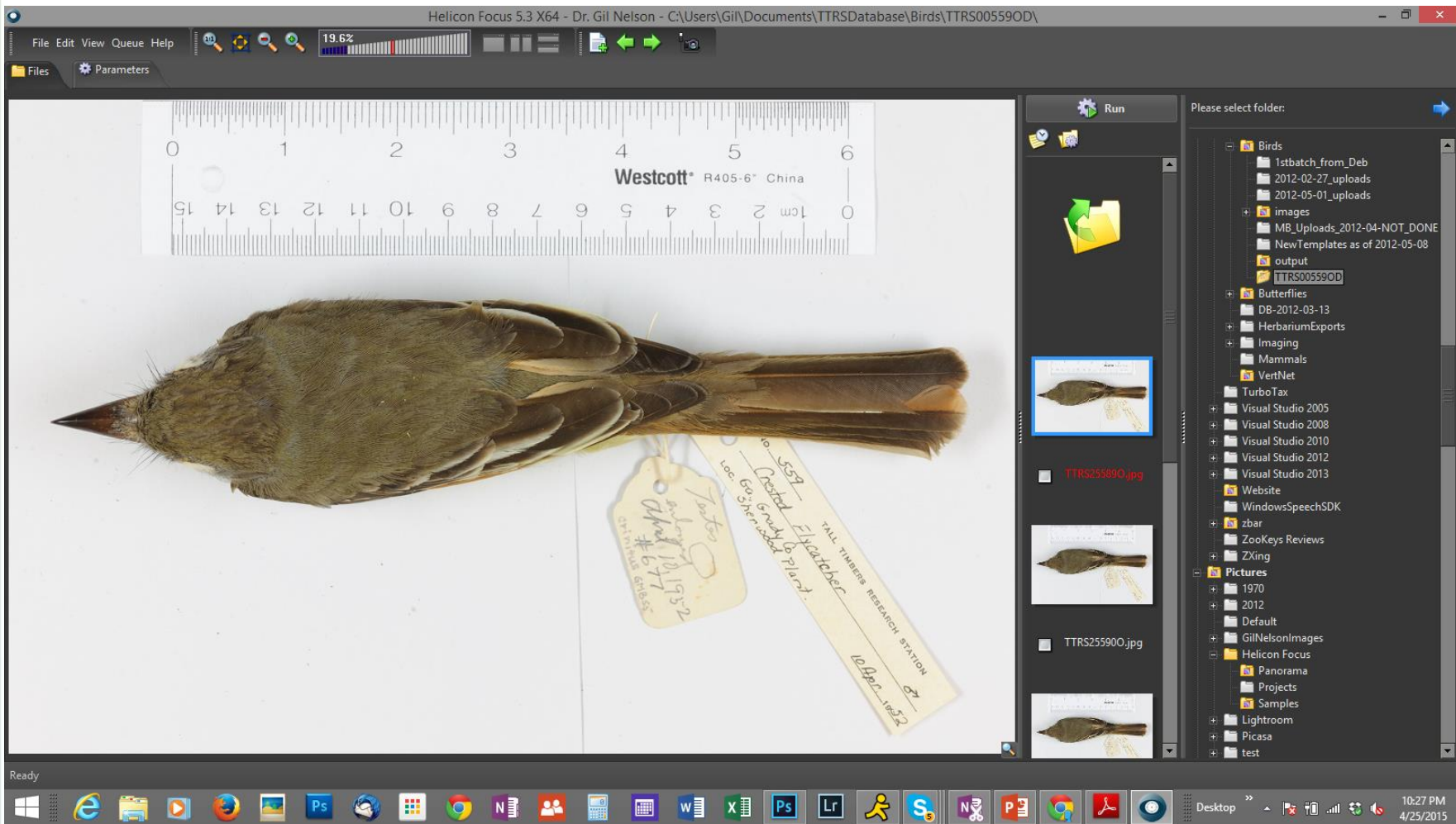
The screenshot displays the Camera Control Pro software interface. On the left, a 'Live View (Tripod)' window shows a specimen on a white background. The specimen is a large, dark, irregularly shaped piece of material, possibly a piece of bark or wood, with a smaller, dark, cone-shaped object (likely a pine cone) positioned below it. A ruler is visible at the top of the specimen. A label on the left side of the specimen reads 'BERBARTH 97749 FLORIDA STATE UNIVERSITY' and features a barcode. A second label at the bottom right of the specimen reads 'UNIVERSITY OF FLORIDA STATE UNIVERSITY Tallahassee PLANTS IN FLORIDA' and contains handwritten text.

The right side of the interface shows the 'Camera Control Pro' window. The title bar indicates 'Camera Control Pro' and includes standard window controls. The menu bar includes 'File', 'Camera', 'Image', 'Settings', 'Tools', and 'Help'. A status message reads 'The D3X is connected.' Below this, there are tabs for 'Exposure 1', 'Exposure 2', 'Storage', 'Mechanical', and 'Image Processing'. The 'Exposure 1' tab is active, showing the following settings:

- Exposure Mode: Manual
- Shutter Speed: 1/60 sec
- Aperture: f/8
- Exposure Comp.: 0 EV
- Flash Comp.: 0 EV
- Flexible Program: 0 Step(s)

At the bottom of the interface, a black status bar displays camera information in green: '60 f8 + 0 M (r 12)'. Below this bar are three buttons: 'AF and Shoot', 'Shoot', and 'Lv'.

Helicon Focus



Consortium of Small Vertebrate Collections



[Home](#) [Search](#) [Images](#) [Inventories](#) [Interactive Tools](#)

[Log In](#) [New Account](#) [Sitemap](#)

Consortium of Small Vertebrate Collections

The Consortium of Small Vertebrate Collections is a growing network of research, academic, and museum institutions focused on the study of birds, mammals, fish, amphibians, and reptiles. It is a collaborative venture of iDigBio and Arizona State University and provides a mechanism for network members to manage and share biodiversity data to scientists and the general public. Participating institutions are afforded sophisticated online data management tools without the need for onsite IT support.

Search Taxon

Mammal of the Day



© Sky Island Alliance and El Aribabi

What is this mammal?

[Click here to test your knowledge](#)

Reptile of the Day



What is this reptile?

[Click here to test your knowledge](#)

