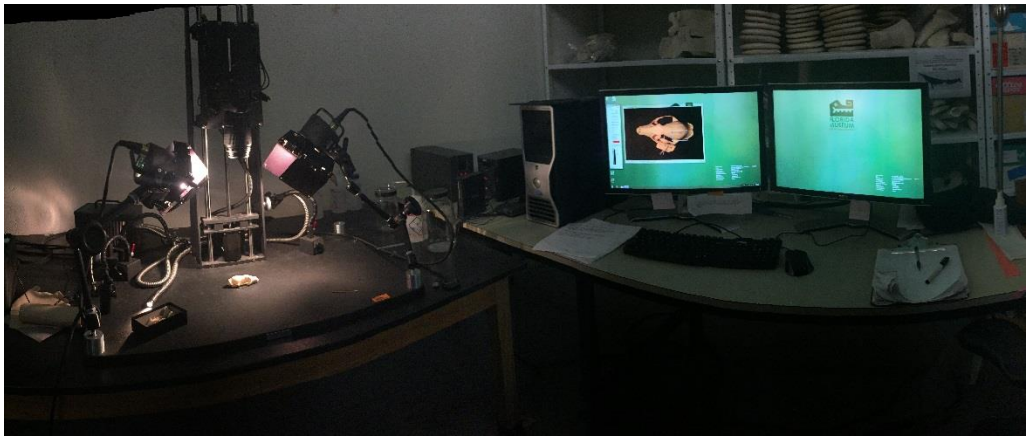
2D Imaging Workflows for Dry-Preserved Specimens (mammals and birds)

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



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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

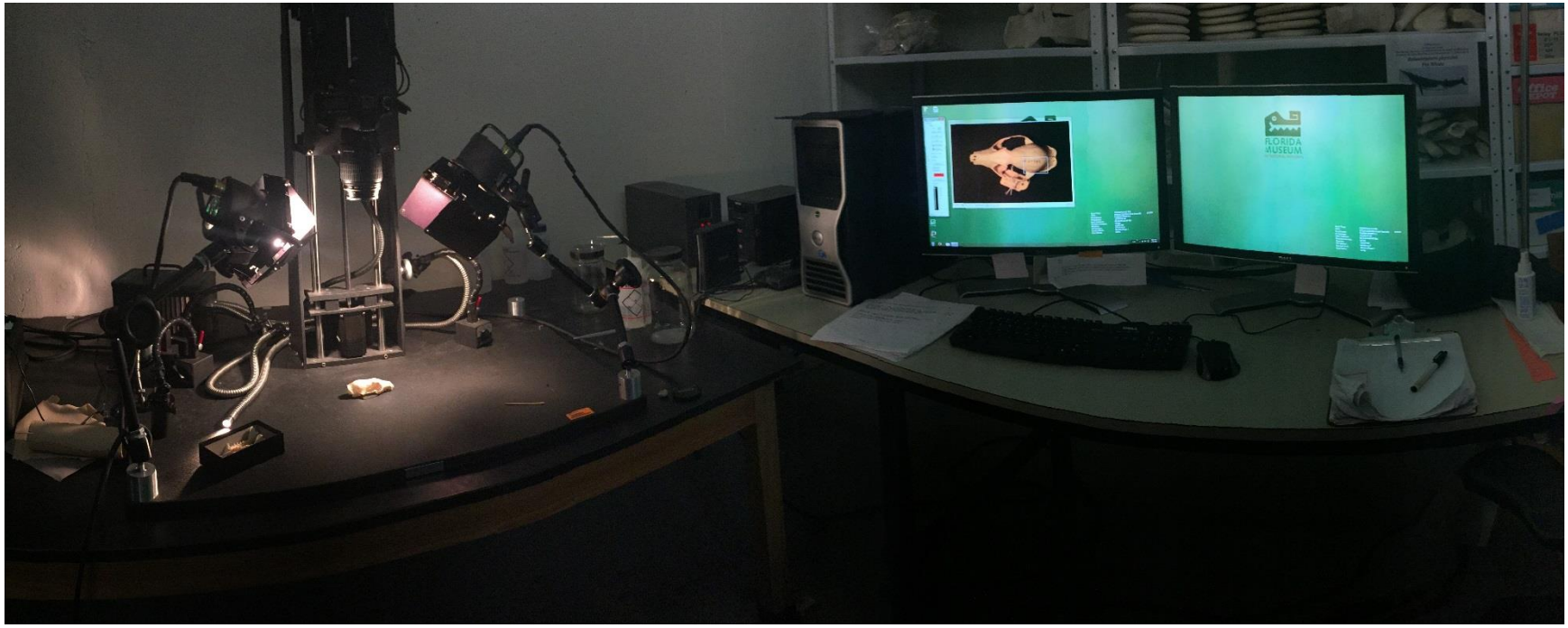
Canon 40D (very tiny objects)

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

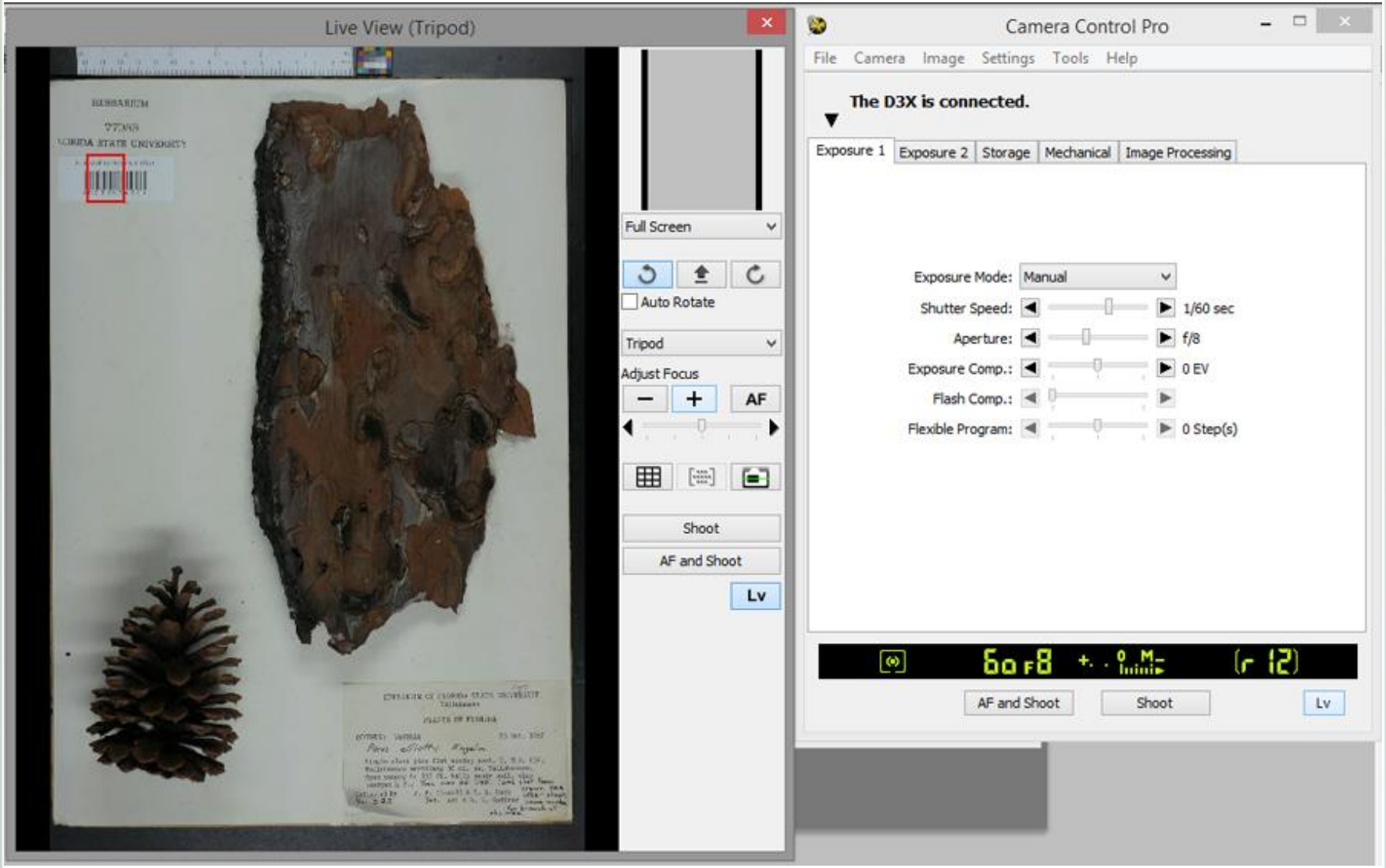
Passerina ciris


Westcott R405-6" China

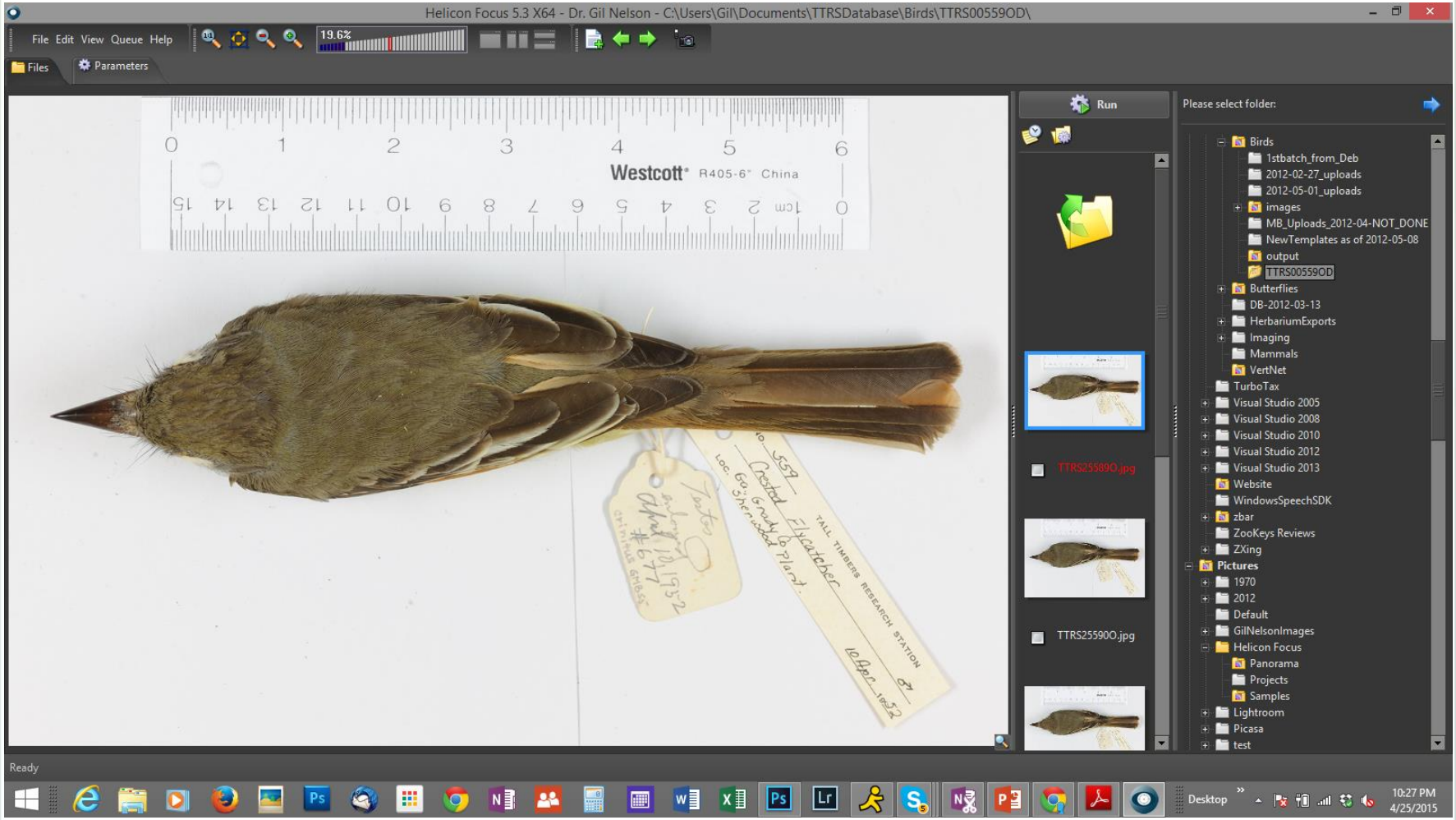

Westcott R405-6" China


Westcott R405-6" China

Camera Control Pro



Helicon Focus



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Consortium of Small Vertebrate Collections

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Mammal of the Day

What is this mammal?
Click here to test your knowledge

Reptile of the Day

What is this reptile?
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