University of Wisconsin Madison (WIS)

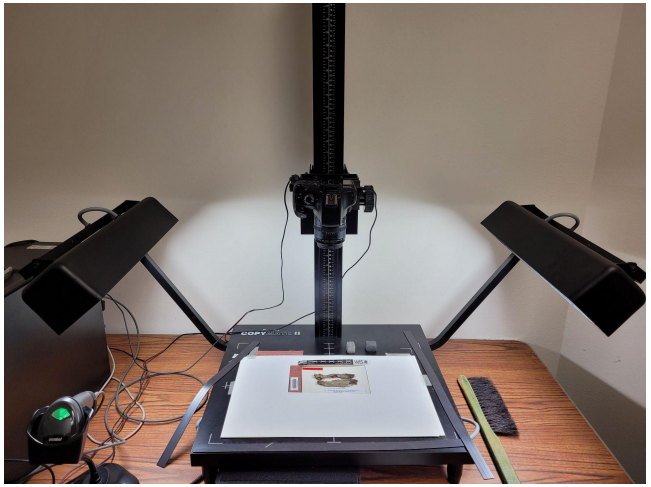
GLOBAL Specimen Imaging Workflow

Loose packets with Open Copy Stand

Equipment

- Canon EOS Rebel T3 Camera
- Canon Compact Macro Lens, 50 mm, 1:2.5
- Canon EOS Utility Software, LBCC Workflow App
- Bencher Copy Mate Stand with Flourescent lighting
- Color square, 5 cm ruler
- Misc.: computer, barcode reader, magnetic strips, weights, white background paper, square white paper cutout, tape, brush







Preparing to Image

Position camera on imaging stand after inserting power cord and cable to computer. Turn on lights.

Pull specimen box from shelving unit and note starting scientific name.

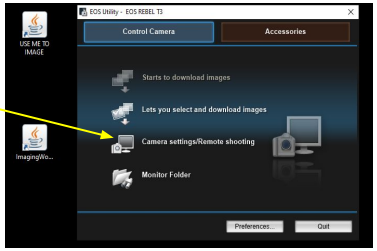
Arrange specimen on stand with care, barcode, color square and ruler ***all fully visible***. Adjust camera height as needed. Multiple images may be taken to include any included annotations or other valuable information.



Preparing to Image (*cont.)*

Turn on camera to start ***EOS Utility***.
Verify:
-Main Window Preferences: Basic Setting.
-Destination Folder: C:\users\tcn admin\Documents\Processing
-Download images box is checked. Subfolder is set to 'Shooting Date YYMMDD'. Delimiter is set to 'Underline'.
-Remote Shooting: Rotate images box is checked -[Do not rotate images in camera setting]

Select Camera Setting/Remote Shoot. When camera interface opens,
click on 'Live View Shoot'. Also select 'Quick Preview' from Other functions.

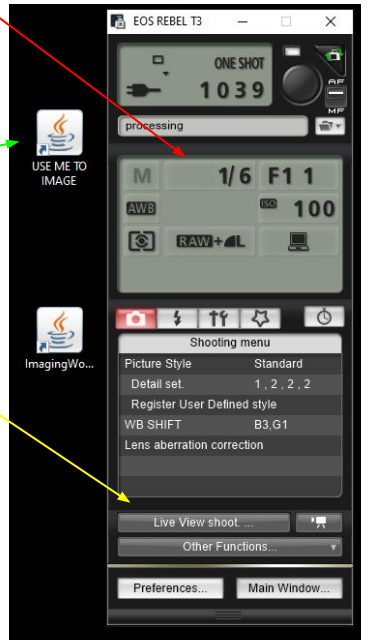


Verify Camera Settings: M; AF; Shutter speed ⅛; Aperture F11; ISO 100; AWB; RAW +L; Standard; Detail 3,1,00

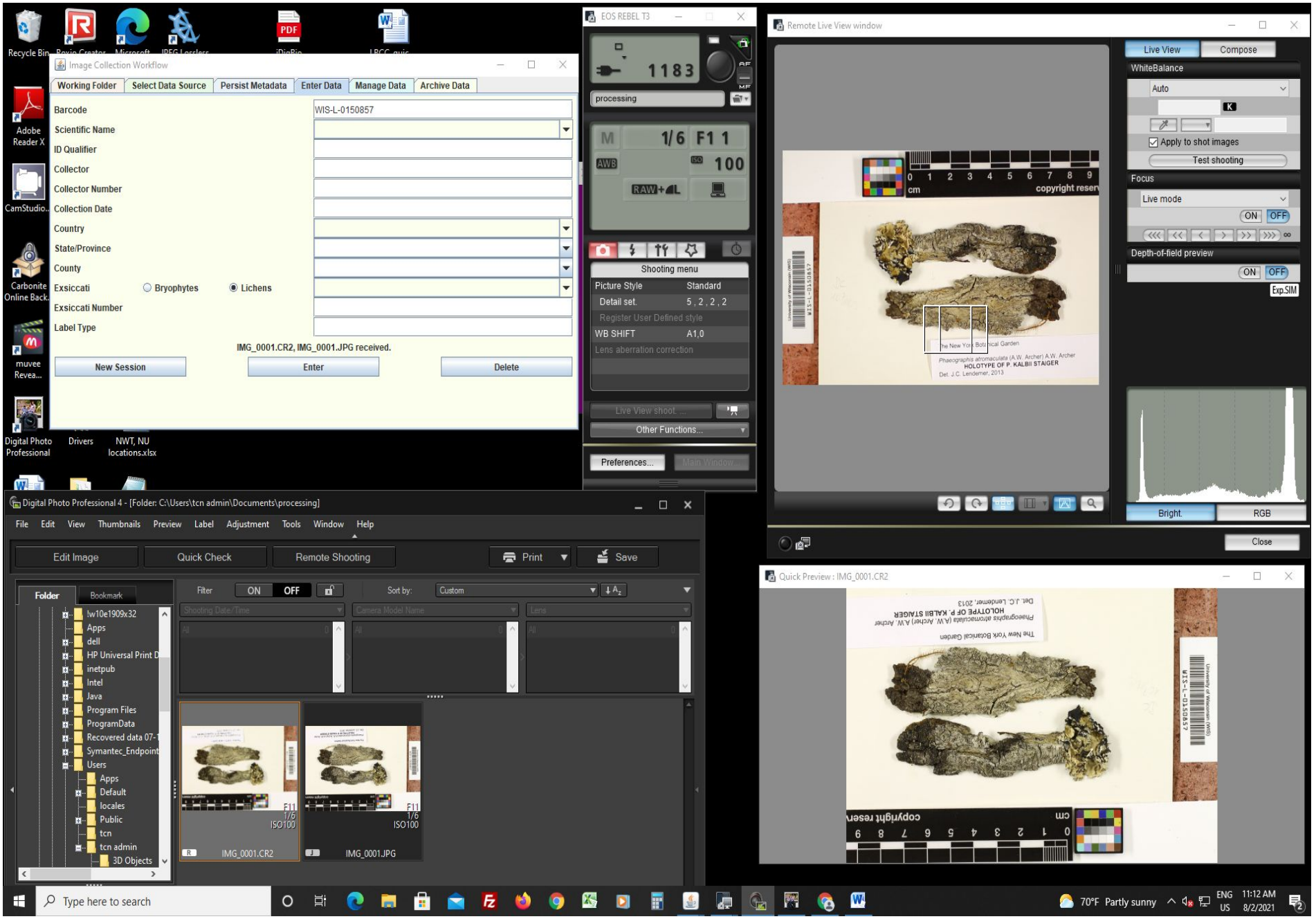
Open ***Digital Photo Professional***. Select Processing folder to monitor from left menu.

Open ***Image Workflow App icon*** (see separate set up instructions if necessary)
Verify:
-Working folder Tab set to: C:\users\tcn admin\Documents
-Select Data Source Tab: Lichen Taxa or Bryophyte taxa file
-Persist Metadata Fields Tab: Select all that apply

Click on New Session to begin Workflow App.
Enter Data Tab: *For specimen imaging* ***only***, set Sci. Name to 'Undetermined' and leave all other fields blank as WIS will not be loading any meta-data



Monitor Display



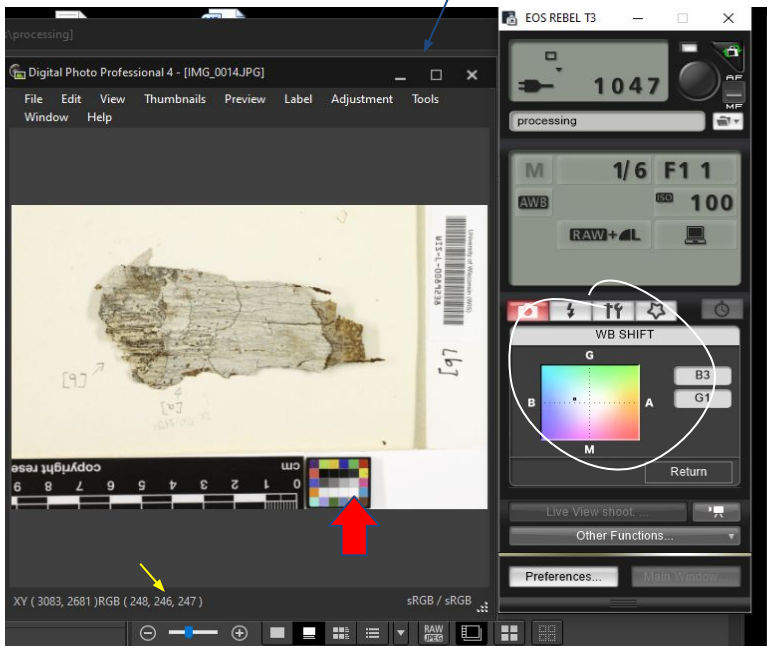
Capture Image

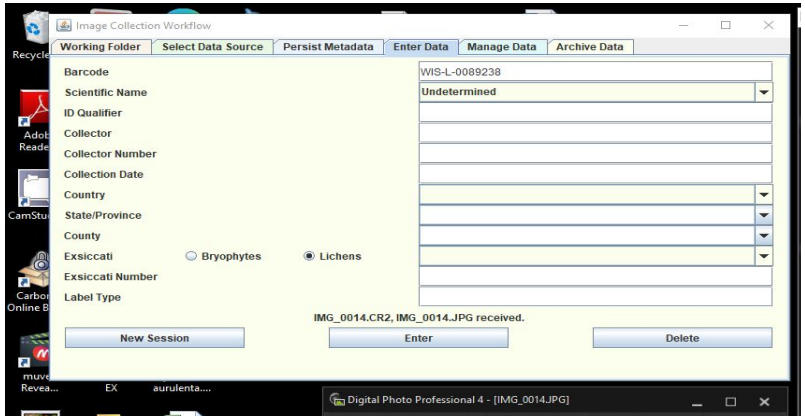
Click on Focus Live mode in Remote Live View Window with white Magnifying Frame positioned on specimen. Check Depth of Field Preview (must check any time height of camera has been altered).

Take photo. Image will appear in *Digital Photo Professional (DPP)*. Fine tune camera settings to assure proper white balance and focus.
To check white balance: Double click on JPEG thumbnail to enlarge. Place cursor over the brightest white square on the color square (red arrow). The RBG values will be displayed under the image (yellow arrow). The goal is to have values in the low 240's +/- 3. You may have to change camera's shutter speed or aperture to achieve this. Additionally, modifying the white balance (WB Shift, white line) may be necessary.

Verify focus quality.

Delete and **Retake** photo as necessary.



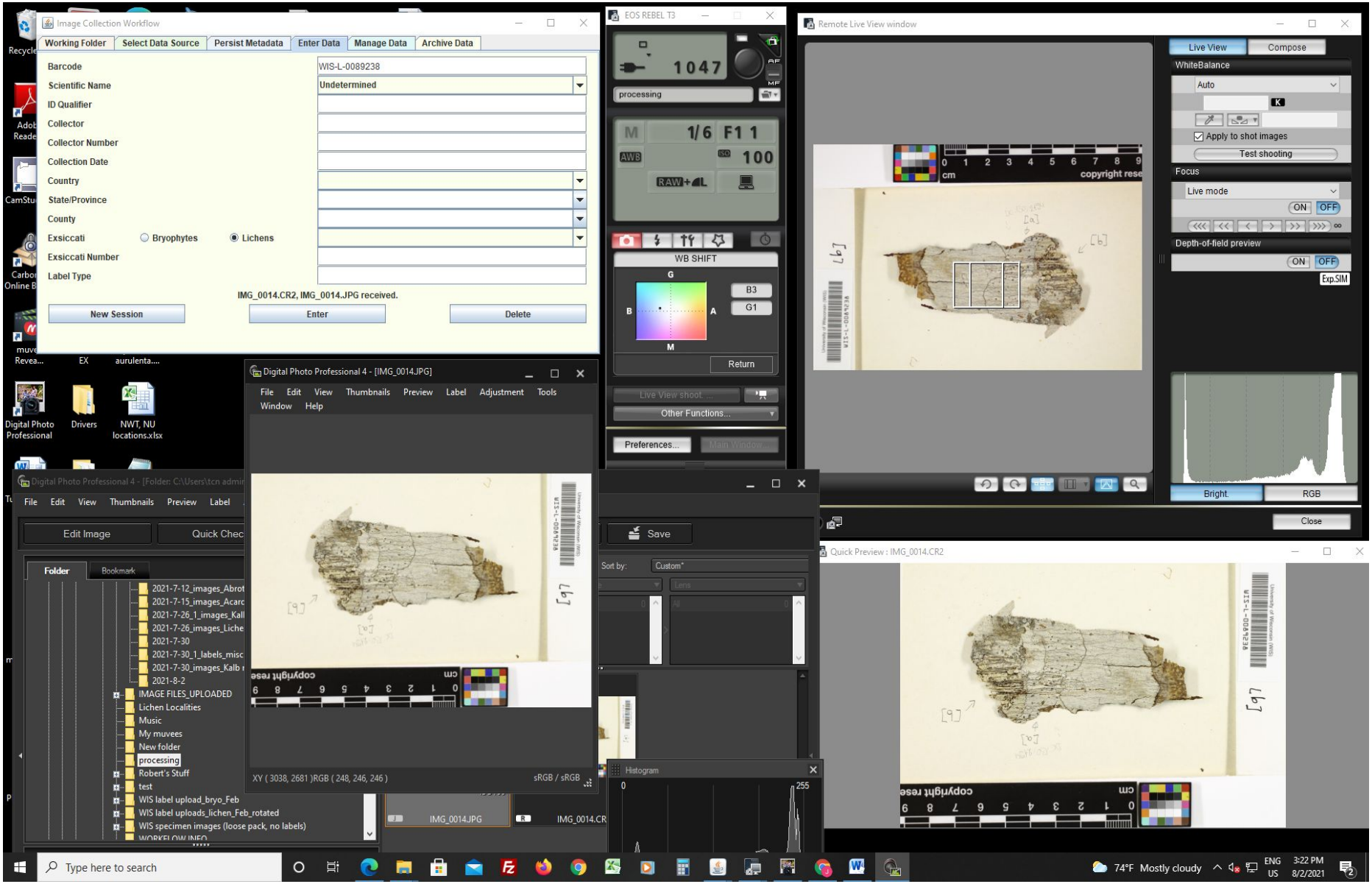


Scan barcode into the Workflow App. Barcode field.

Click Enter to rename file.

Carefully replace specimen in packet with any corresponding enclosures (notes, determinations, tissue) and replace in proper position in box. At the end of the session, **flag** the extent of progress with date and initials.

Monitor Display



Post-Imaging

Proof images with ***DPP*** by selecting file from Destination Folder in the left panel. Check each photo to ensure proper focus and proper file name (renamed as barcode number)

Manage folders:
-Find folder in Documents. Rename folder by adding "_images_(starting genus sp.-ending genus sp.)" to the date (ex. 2021-04-25_images_Cladonia a - Cladonia b)
-Delete skeletal file in folder

Rotate images with ***JPEG Lossless Rotator*** program

Save RAW photos on UW Herbarium server
Save JPEGs in destination folder

Upload JPEG file to GLOBAL portal

Complete imaging log with date, initials, file name, number of specimens imaged, date uploaded

Digital Photo Professional screen for proofing

