

MS57 Training guide: 2D imaging of insects boxes (RBINS & RMCA)

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1. Photo set up

• The pictures are taken with a Canon Eos 5Dsr camera and a 40 mm lens.



• The camera is installed on a stand, with adjustable height via a stackshot controller.



• The camera is then plugged into the current and connected to the PC via the Micro-B cable.



• Check the horizontality of the unit with a spirit level.



- Turn on the two led light panels of the cabinet (switch at the back). **Attention, it is imperative to turn on the lights before turning on the camera** to avoid any problems of capture.
- Add extra lighting if necessary.



• Switch on the camera.

2. Preparation of the shots via the PC

- In Explorer, create a folder with the name of the collection that will be photographed, as well as two subfolders named "Clean" and "Raw".
- On the PC, launch **EOS Utility**: normally, the software is launched automatically when the camera is turned on. A window appears: click on **Remote Shooting**.
- Select **Live View Shoot** in the window that has just opened: a new window opens with the image captured by the lens.



- Adjust the height of the camera on the stand using the stackshot controller.
- On the other hand, open the destination folder of the images still in the EOS Utility window, via the file icon. Select the "Raw" folder.

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• Check the sharpness of the image via the zoom of the lens, enlarge the image of the interface (zoom x6) for more precision.



• Photograph the color scale by clicking on the round black shutter release at the top of the EOS Utility window.

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3. Photography of the boxes

- After this first photograph, close the window that has just opened with your result and display the EOS utility window again.
- Move the color scale away from the camera field.
- **Delicately** open the insect box, then place it centered and straight below the camera, along the markers if there are any.
- Close the cabinet and check the focus on the computer screen.
- Take the picture by clicking the shutter button in the EOS Utility window.
- Repeat step 3 for each box.

4. Correcting deformation

- Open the **Explorer** folder containing the images to be processed.
- Rename the images according to their box number by adding "raw" behind the numbers.
- Open the "Raw" files in **DXO OpticsPro 11**, click on **Customize** and activate **Distortion** in this window.



5. White balance

- Rename the image of the color scale "white balance".
- Right click on the color scale image and open it with **DXO OpticsPro 11**. The entire folder of photos will open in DXO.
- In the banner at the bottom of the interface, select the color scale image **as well as all those intended for white balance**. To select more than one image at a time, hold down the Shift key while selecting.
- MAKE SURE THAT ALL IMAGES REMAIN SELECTED THROUGHOUT THE PROCESS ON DXO OPTICSPRO 11.
- Click on "**CUSTOMIZE**" at the top left of the DXO interface, then click on "**Pick color**" below "RGB White balance", on the right in the interface. With the eyedropper, click on the white box of the palette.

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- Click on "**Export to disk**" at the bottom right of the interface.
- In "**Path**", set "Clean" as the destination folder.
- Click on "Export" and wait, the results have to be processed.

6. Final image processing

- In the "Clean" folder, remove the "raw" from each file name.
- Open each photo individually with **XnView for Windows**.
- Crop the photo as needed.
- If necessary, change its orientation.
- Save the result under the same name in "Clean".
- Repeat as many times as there are photos.



General view of the Insects Box



Detailed view



General view of the Insects Box

7. Credits

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- CC: CC BY