Photography 101
For
Small Herbaria Digitization

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Shopping List

- Copy stand
- Camera
- Lens
- Cables
  - AC adapter
  - Long USB cable
- Computer
- Software
  - Camera control software
  - Image management software
- Lights OR Photo-eBox BIO
- Miscellaneous
Copy Stand

Kaiser 205512 RSX
Photo eBox Plus
Camera

Canon - Nikon

Full frame, at least 18MP
full frame vs. cropped frame

The Subway, Zion National Park, Utah (by Guy Tal).
Lens

50 – 60 mm macro

Goal: Good 1:1 fidelity

Macrophotography lenses have extra close focusing ability
Cables

• AC Adapter – replaces dependence on battery
• Camera Control – tethering camera to computer, using LiveView
Photography Terms

Image goals:
• Exposure – well-balanced
• White balance – accurate light, no color cast
• Focus - sharp
Exposure
Combination of ISO, speed and f-stop

Histogram
Camera Settings

• Put the camera in manual mode (not program, shutter speed, aperture, etc.)
• Set matrix metering (not spot)
• Place the lens in auto focus
• Exposure
  • f/stop between f/9 and f/11
  • ISO = 100
  • Shutter speed = 1/60 sec.
• White balance: auto, but depends on lights
• Set image quality to RAW
• Move the camera up and down on the copy stand until in LiveView the subject fills the frame and is in focus.
Miscellaneous Equipment (1)

- Spigots (spacers) and copy stand adapters
- External hard drive
- Hot-shoe bubble
- Barcode reader
Miscellaneous Equipment (2)

- Extra bulbs
- Ruler
- Color checker
- Monitor color correction
- Lens cleaning supplies
- Roll of 1” gaffer tape
Image Management Software

Adobe Lightroom

*Kim will tell you more later*
Camera Control Software Overview

- Canon
- Nikon
- Third Party
Canon EOS Utility
(for tethered shooting and control of the camera)
EOS Utility

Preferences

Destination Folder

D:\Womble Pictures\HDB Raw

A subfolder into which the image will be saved will automatically be created in this folder. Create subfolder next time this function is used.

- Download Images
- Remote Shooting
- Monitor Folder

Example:

D:\Womble Pictures\HDB Raw

2011_03_20
EOS Utility

Preferences

Basic settings  Destination Folder  File Name  Download Images  Remote Shooting  Linked:

- Save also on the camera’s memory card
- Rotate image

File name when [Do not modify] is selected in the file name settings

File Prefix

IMG

Assign Sequence No.

Number of Digits: 9
Start: 68540

OK  Cancel
Canon Digital Photo Professional
Canon Digital Photo Professional

Batch settings

File format:
- Kind of file: Exif-TIFF (dbt)
- Image quality: 10

Output setting:
- Output resolution: 350 dpi
- Embed ICC profile

Resize setting:
- With: [Input Field]
- Height: [Input Field]
- Unit: [Input Field]
- Lock aspect ratio

File name:
- Current file name
- New file name
- Sequence number
- Save sequence number

Image transfer settings:
- Open image using software

Execute | Cancel
Nikon Camera Control Pro 2
Nikon
Camera Control Pro 2
Live View
Nikon Capture NX2
Lightroom
Lightroom
Tethered Shooting

What about PhotoShop?