Cheat Sheet for Specimen Imaging Using a Light Box

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Advantages of a light box:
Excellent lighting without adjustments
Consistent photos when taken by a large number of students and volunteers

Our project, and therefore our philosophy of photography:
- Approximately 100,000 specimens to photograph from 8000 localities.
- Photos should be in focus, and include a scale bar and mini color checker.
- The goal is to give researchers a sense of the number of specimens from each locality, their condition (complete/fragmented) and their preservation (mold/cast/original). Photo may be good enough to allow identification.
- Also serves as a reference to collection managers when locating specimens and records the condition of the specimens at a specific point in time.

File Formats:
RAW: Take photos
DNG: Save photos on backup disk
JPG: Resave smaller versions for online

Metadata:
- Include locality label in photograph
- Online photo linked to online locality record (demo)

Photos from UCMP rehousing and digitization project:
http://tinyurl.com/usgsmpphotos

Photo processing:
- Use Adobe Bridge to view, rotate and for basic editing.
- Using custom scripts in Adobe Photoshop (color difference between white box and black background), images are automatically cropped and resized to 1024 pixels as the maximum length or width and saved as JPG for uploading to CalPhotos.

Time to photograph: 5-10 minutes per locality

<u>Set-up costs:</u>
Large copy stand with camera attachment e.g. $1314.00 (Kaiser Copy Stand RSX with RTX arm) + $147.95 (Delta One Pro magnetic stand; has a larger base)

Digital camera (Canon Rebel T3i body only) $599.99

Macro lens (Canon EF 50mm f/2.5 macro) $299.99

LED Lightbox (MK Digital Direct Photo Ebox Plus 1419 NYBG Modified) $1695.00; plus $149.00 freight shipping

Various other supplies (extra camera batteries, color wheel, scale bar, UV filter, black velvet, label weights, USB camera cable etc.) $150

Software to allow remote photography and digital photo management (Canon, included with purchase of camera) $0

Adobe Bridge and Photoshop

Computer with large viewing screen (i.e. iMac)

Our light box set-up