Digitizing Specimens in the STAR Herbarium: A Viable Workflow for Collections Working with Limited Resources

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Presented at The Society for the Preservation of Natural History Collections Meeting June 2014
What we Know

Small herbaria:

- House important data
- Are less likely to digitize collections
  - Funding
  - Time
  - Other Responsibilities
Previous Presentations

How to circumvent these obstacles

- Options for student workers
- How much time to fully digitize
STAR Herbarium Work Flow

1. Check Nomenclature
2. Annotate (if needed)
3. Image
4. Database
5. Upload to Specify
6. Export to Website
7. More specimens
8. Collect from field
9. Press and Dry
10. Generate Label
11. Mount Specimen
12. Attach Label
13. Stamp with Accession Number
14. Freezer 72 hours
Data

- **Annotating:** ~18,000 specimens
  - Rate ~ 150 specimens/hour

- **Imaging:** ~18,000 specimens
  - Rate ~ 143 images/hour
Data

- Uploading: ~18,000 specimens
  - Rate ~ 333 specimens/hour
  - Previous: ~ 7 minutes/ dataset
- Updated because:
  - STAR datasets are per species
  - Number of specimens in each set varies
  - Per specimen rate is more accurate
Databasing the Collection

- Using Specify 6
- 5 Students, 1 Me
Databasing the Collection

Specimens databased: 14,575

- Rate (5 students): ~24/hour
- Rate (Me): ~46/hour

- Why the difference?
  - Matter of motivation
  - Students paid by the hour
So What Can We Do?

- Find a more motivated student
  - Or one that can type faster...
- Train them better
- Pay them differently
  - Different motivation
  - Pay per specimen
    - $7.50/hour for 30 specimens = $.25/specimen
    - 20 hours/week = 600 specimens/week
Commitment, Original Projection:

- 1 person; 10 hours/week; 20,000 specimens:
  - 13 weeks to annotate
  - 13 weeks to image
  - 67 weeks to database
  - 5 weeks to upload

- Total: 98 weeks or ~2 years
Commitment, Revised:

- 1 person; 10 hours/week; 20,000 specimens:
  - 13 weeks to annotate
  - 13 weeks to image
  - 83 weeks to database
  - 6 weeks to upload

- Total: **115** weeks or ~ **2.25** years
And Remember This...

- It takes longer than you think
  - Always plan for extra time
  - Set goals to stay on track

- Digitizing is never finished
  - The important thing is to just get started
  - Partially digitized is better than not at all
Acknowledgements

- Travis Marsico, ASU
- Joe Burleson, ASU
- NSF: Experiential Learning Fellowship
- ELF Students: Star Loerch, Alex Worm, Crystal Davis, Hunter Nunnally, Chris Burkhart, Rebecca Kennedy
- Lizz Etzkorn, Ashley Hart, and Eddie Hampton
- Marsico Lab
- EPA Grant
- Theresa Miller, KU
- Andy Bentley, KU
- Marvin and Karen Fawley, UAM
- Drew Prescott, UAM
- iDigBio
Questions?

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