

Annual Report September 1, 2008- August 31, 2009
Ted R. Bradley Herbarium (GMUF)
George Mason University

Note from Director: This report covers my fourth year as director of the Ted R. Bradley Herbarium.

STATISTICS

Loans Out, made after September 1, 2008 - (2)

- Virginia Tech, 89 sheets of *Crataegus* spp. (November 26, 2008).
- Virginia Commonwealth University (Virginia Natural Heritage Program), 89 sheets *Stachys* spp. (September 5, 2008).
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Loans Outstanding, made prior to September 1, 2008- (4)

- MU, Willard Sherman Turrell Herbarium, Miami University, Ohio. Loans of Bahamian vascular plants to support development of a new Flora of the Bahamas:
 - 1) 123 sheets pteridophytes (September 29, 2005).
 - 2) 31 sheets of Commelinaceae and Liliaceae (April 4, 2006).
 - 3) 10 sheets Agavaceae, Smilacaceae (June 19, 2006).
- University of North Carolina (UNC), 34 sheets *Philadelphus* (April 1, 2007).
- North Carolina State University (NCSC) 11 sheets *Canavalia* (1), *Parkinsonia* (5), *Styphnolobium* (syn. *Sophora affinis*, *S. japonica*) (5) (April 24, 2008).
- University of North Carolina (UNC), 25 sheets of *Taenidia* and 4 sheets of *Pseudotaenidia* (May 9, 2008).

Loans Returned to GMUF - (2)

- Virginia Commonwealth University (Virginia Natural Heritage Program), 89 sheets *Stachys* spp.
- Virginia Commonwealth University (Virginia Natural Heritage Program), +400 sheets *Dichanthelium* spp. (May 2, 2007)

Loans In, Maintained at GMUF - (2)

- UT/LL University of Texas at Austin, 10 sheets of *Trichocline*, *Chaptalia*, *Leibnitzia* for GMU MS Thesis of K. Baird.
- ARIZ University of Arizona, 23 sheets of *Leibnitzia*, *Chaptalia* for GMU MS Thesis of K. Baird.

Loans In, Newly received – (14)

- AUA, 16 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- DOV, 4 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- FLAS, 118 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- GA, 47 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- GH, 120 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- NY, 203 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- DUKE, 68 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- NCU, 69 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.

- USCH, 21 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- BRIT, 115 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- TEX, 47 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- ODU, 14 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- BH, 64 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.
- PH, 176 sheets of *Kosteletzkya pentacarpos* for GMU MS Thesis of S. Alexander.

Exchanges Out - (0)

Exchanges In - (0)

Gifts - (1)

- Miami University, +100 unmounted specimens from NCC faculty member Michael Gilmore's Peruvian ethnobotany Ph.D. project (April 30, 2009).

Requests for Information (2):

- Bryan Landacre, USGS. (August 24, 2009).
- Natalie Jablonski, Brown University (October 22, 2008).

Herbarium Visitors: External - (46)

- From: Virginia Native Plant Society (16), Ayr Hill Garden Club (5), City of Alexandria Parks (1), Laurel Ridge Girl Scout Troop (17), University of Delaware (2), NVCC (1), Captiol region - National Park Service (3), NMNH – Botany (1).

Herbarium Visitors: GMU faculty/students/staff - (27)

Herbarium Volunteers: (2), Amanda Wall, Pritpal Singh.

Classes using collections – (2)

- BIOL 495, Fall and Spring semesters

MANAGEMENT HIGHLIGHTS

Public outreach within the herbarium facility:

- Hosted Laurel Ridge Girl Scout Troop for herbarium tour and repeated my Sally Ride workshop, "Systematics: Science of Biodiversity." April 24, 2009.
- Two herbarium and campus plant tours were given to GMU students and faculty during Earth Week. (April 22 and April 29, 2009)
- Herbarium field-trip for Ayr Hill Garden Club from Vienna, Va. , November 14, 2008.
- Herbarium field-trip for annual meeting of the Virginia Native Plant Society, September 12, 2008.

Raising external visibility of the collections:

- Attended the Virginia Botanical Associate's annual meeting Charlotte, VA (October 4, 2008).
- Volunteered to host a herbarium field-trip event September 12 for the 2008 conference of the Virginia Native Plant Society: <http://www.vnps.org/events/2008/07/vnps-2008-annual-meeting.html>. The following advertisement was posted in their brochure and website: "Join herbarium director, Dr. Andrea Weeks, for a tour of the Ted R. Bradley Herbarium on the campus of George Mason University. This research facility houses over 60,000 dried and pressed plant specimens, including a synoptic collection of Northern Virginia flora that is used by students, scientists, and natural resource professionals as a reference collection for ongoing floristics projects. Gain insight into archival specimen preparation, curation, and how the "business" of taxonomic work gets done! Notable specimens and the extensive reference-text collection will be available for viewing, as well. (Directions to herbarium will be sent with registration confirmation)." The brochure was sent to over 2000 VPNS members.

Library: The following were added to GMUF library: Fruits and Seeds in the subfamily Faboideae (Fabaceae) Vols. I and II. USDA Technical Bulletin 1890.

Physical Infrastructure:

Progress on Databasing Collections:

Through student volunteer and BIOL 495 activities during the 08-09 academic year 5108 sheets have been entered into the SPECIFY database as of May 2009.

Space Planning Activities:

Through out the 08-09 academic year I met with various individuals from the Perkins & Will architectural firm and members of GMU construction management team, including the project manager Erik Backus, to discuss the location, size and design of the new herbarium space. The space will be in the lower level of S&T II renovated building and is illustrated in the attached plan.

The proposed research collection room (1142 sq ft) is slightly larger than the current one (912 sq. ft.), whereas the proposed prep room (291 sq ft) is slightly smaller than now (384 sq ft). In total, the new space represents a net gain of 137 sq ft.

The configuration of the proposed collection space accommodates all 54 current cabinets. The space can also easily fit 61 Lane-style cabinets on compactors in long rows without any reconfiguration of the room. The 61 cabinets reflect the number needed to replace the old NPS cabinets and an additional 25% expansion of storage space.

Tentative timeline of construction events:

Summer 2009: final design approval (sign-off) completed by myself and Chair ESP, Bob Jonas.

Spring 2011: renovation of S&T II begins

Spring 2013: completion of all new and remodel construction for COS building complex.

Type 1 Collection Cabinets: 32" wide x 19" deep
- 20 units @ 53'-4" total length
- 6" shelf height

Type 2 Collection Cabinets: 55" wide x 22" deep
- 17 units @ 77'-11" total length
- 6" shelf height

Current Collections

Necessary Linear Footage: 1340'-10 1/2"
Type 1 & 2 Linear Footage: 131'-3"

Necessary Shelves:

10.21 = 11 shelves
6'-0" tall cabinets required
1443'-9"

Total Linear Footage:

Expanded Collections (25% Expansion)

Necessary Linear Footage: 1685'-1 1/2"
Type 1 & 2 Linear Footage: 131'-3"

Necessary Shelves:

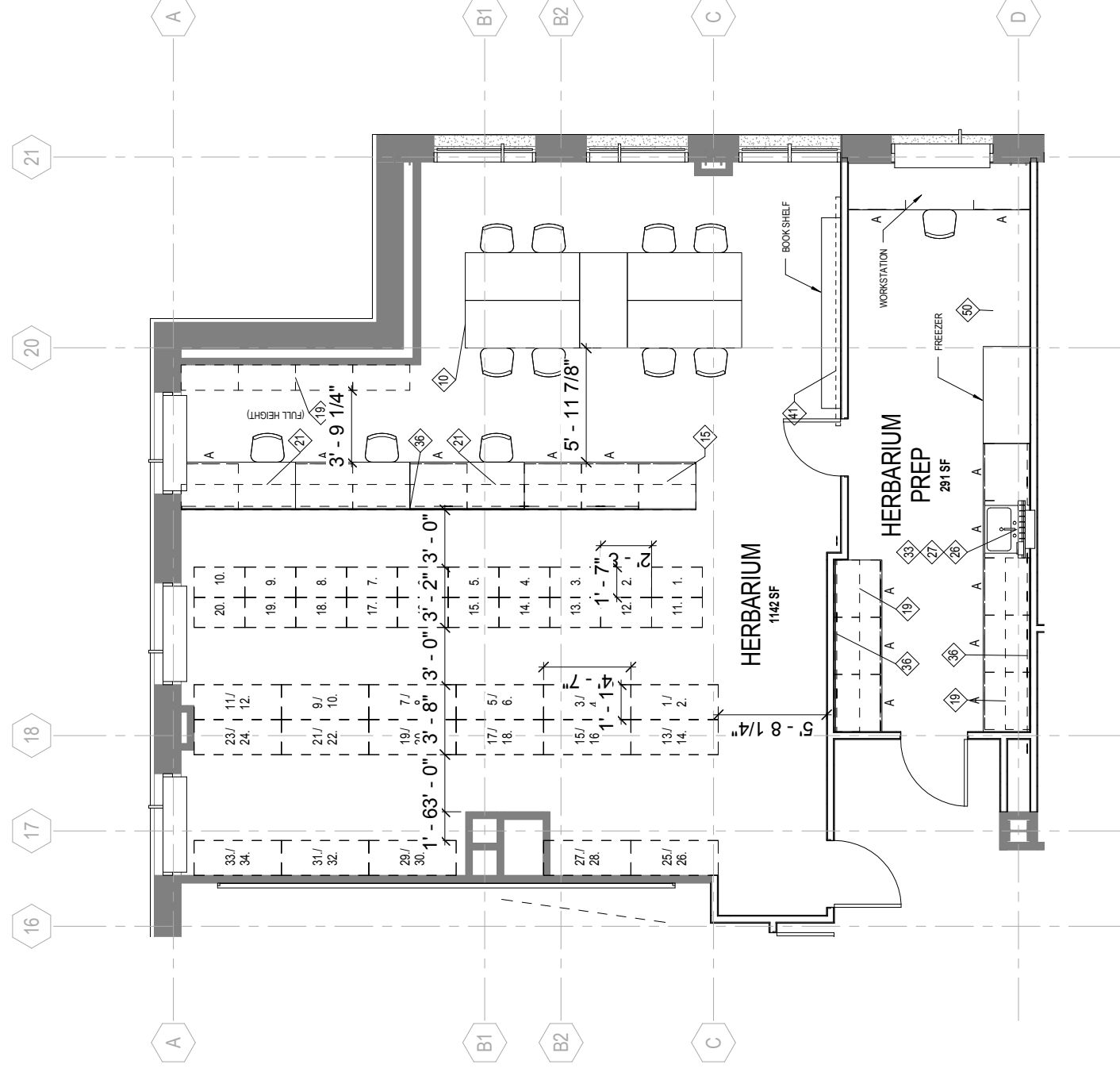
12.83 = 13 shelves
7'-0" tall cabinets required
1706'-3"

Total Linear Footage:

LAB FURNISHINGS LEGEND

- | | |
|---|-------------------------------------|
| 1. Chemical Fume Hood | 26. ADA sink |
| 2. ADA chemical fume hood | 27. Utility or pipe drop enclosure |
| 3. Biological Safety Cabinet | 28. Pegboard |
| 4. Snorkel exhaust | 29. Cup sink |
| 5. Cubbies for coats/ backpacks | 30. Processing sink |
| 6. Lab bench standing height (fixed) | 31. Cylinder rack |
| 7. Lab bench sitting height (fixed) | 32. Safety shower |
| 8. Lab table standing height (moveable) | 33. Eyewash |
| 9. Lab table sitting height (moveable) | 34. Overhead service carrier |
| 10. Adjust height moveable lab tables | 35. Flexible power/data drop |
| 11. Movable demonstration bench | 36. Electrical raceway |
| 12. Desk/writing table | 37. Glassware washer |
| 13. Balance table | 38. Glassware dryer |
| 14. ADA height workstation | 39. Autoclave |
| 15. Movable demonstration bench | 40. Wire shelving |
| 16. Mobile base cabinet (below) | 41. White markerboard |
| 17. Wall cabinet solid doors | 42. Black chalkboard |
| 18. Wall storage behind marker/black boards | 43. Tackboard |
| 19. Adjustable wall shelves | 44. AV screen |
| 20. Reagent shelves above casework | 45. Ceiling datapower for projector |
| 21. Industrial adjustable shelving | 46. File cabinet |
| 22. Tall storage cabinet | 47. Fire extinguisher |
| 23. Vented storage cabinet | 48. Black-out shades |
| 24. Equipment space | 49. Wall mount telephone |
| 25. Laboratory sink | 50. Rolling cart (by owner) |

HERBARIUM & PREP



1 HERBARIUM
scale: 1/8" = 1'-0"