The Valdosta State University Herbarium

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What is an herbarium?

- Collection of dried plant specimens
- Permanent repository of specimens and data
- Each herbarium specimen provides a permanent record (*voucher*) of the occurrence of a species at a particular geographical station.
  - *Specimens without accurate geographical data are of limited use!*
Voucher specimens are essential in documenting research in plant science.

- Specimen provides permanent, verifiable, tangible evidence.
- Specimen label provides geographical, ecological & other kinds of data.
How are herbarium specimens used?

- Provide verifiable records supporting many kinds of research in plant science
- Provide distributional data on plant species
  - Rare, threatened, endangered species
  - Invasive weeds
  - Species in general
- Provide basis for descriptions of species in manuals, monographs, and other publications
- Provide basis for construction of keys used in identification
- Used to confirm determinations
- Used as standards for consistent application of scientific names
- Used in teaching
Who uses herbarium data?

- Researchers at VSU
- Researchers at other institutions through visits and lending and exchange of specimens
- Personnel with state and federal agencies, e.g., Georgia DNR Heritage Program, UGA Extension Service, USFWS, USDA-APHIS
- Weed scientists
- Students and teachers
How long will herbarium specimens last?

- If properly cared for, herbarium specimens will last indefinitely.
  - Dry
  - Free of pests
    - Insects
    - Fungi
- Oldest herbarium >425 years old
  - Kassel, Germany
  - Founded 1569

Specimen in Linnean Herbarium probably collected ca. 1730 in Virginia by Colonial botanist John Clayton

Image by permission of the Linnean Society of London
www.linnean.org
- **Geographical data**
  - Country
  - State
  - County
  - Locality (e.g., distance and direction from nearest town or other landmark, hwy intersection, etc.)

- **Ecological data**
  - Habitat (e.g., roadside, pasture, coastal prairie, bayswamp, etc.)
  - Size and extent of population

- **Misc. data**
  - Flower color
  - Habit (e.g., 3 m shrub, 40 ft tree, vine, etc.)

- **Collector name(s) & number**

- **Collection date**
Scientific name

**Fabaceae**

*Sesbania drummondii* (Rydb.) Cory

Geographical data

- **Country**: U.S.A.
- **State**: Georgia
- **County**: Glynn County
- **Locality**: Hofwyl-Broadfield Plantation State Historic Site; 0.35 mile S jct. hwys. US 17 and GA 99 at Broadfield; 15-20 plants observed, 4-5 m high with gray-green foliage, locally common in open area between Hwy. US 17 and flatwoods along east side of hwy.

**Date of collection**: 17 Oct 1999

**Collector name(s) & number**: Richard Carter 14427 with S. Corbett & G. Bennett det. R. Carter

**Misc. data**: Valdosta State University Herbarium (VSC)
 Mounted specimens given accession numbers, sorted & filed systematically

- Serial accession number stamped on each herbarium sheet
- Specimens sorted by family, genus, species
- Specimens filed in herbarium cabinets sequentially in archival quality genus folders
History

- Pre-1960, Dr. Beatrice Nevins accumulated a teaching collection of several hundred specimens.

- In 1961, Dr. Wayne Faircloth began to accumulate a research collection.
  - The herbarium comprised ~30,000 specimens when Dr. Faircloth stepped down in 1984 to become department head.

- In 2001, herbarium moved into new building providing
  - Greatly improved ventilation and air quality
  - More than double the space
Size & Significance of Collection

- Regional collection of >60,000 accessioned specimens
  - Particularly rich in plants of Georgia coastal plain
  - Extensive collections of graminoids, ferns, bryophytes

- Significant collections
  - W. R. Faircloth
  - R. K. Lampton (bryophytes, lichens)
  - R. Carter
  - R. Kral
  - C. T. Bryson
  - S. T. McDaniel
  - R. K. Godfrey
Current Facilities

- ~1500 sq ft with climate control
  - 68°F
  - 50% RH
- Separate room for specimen preparation and isolation of incoming materials
- Space for expansion – main herbarium room will accommodate 20 additional herbarium cases
- 2001: research grade dissecting microscope
- 2005: -40°C freezer for pest control
Valdosta State University Herbarium (VSC) occupied 2001
The Herbarium
Valdosta State University (VSC)
Documenting biodiversity in the coastal plain region of Georgia

Mission Statement
The Valdosta State University Herbarium (VSC) provides a repository for the preservation of voucher specimens that document the flora of the Coastal Plain region of Georgia and specimens from a broader geographical area that might be useful in the study of the flora of this region and that enable specialized research on particular groups of plants carried out by faculty and students in residence at Valdosta State University and by taxonomic specialists at other institutions. VSC also provides specimens for use in teaching, and its staff responds to requests from the general public, natural resource managers, agricultural scientists, and others by providing information about plants and service determinations of unknown plants and, where appropriate, preserving vouchers relating to such.
Find out more about VSU’s herbarium

http://www.valdosta.edu/~rcarter/herbintro.htm