

UCSB Campus Flora Project
Progress Report December 15, 2006 - December 15, 2007

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Introduction

The University of California, Santa Barbara is located in a Mediterranean climate. The dry summers and mild, wet winters allow an incredibly diverse assemblage of plants to thrive in the area. The founders of UCSB, especially Dr. Vernon Cheadle who served as Chancellor from 1962 until 1977, recognized the special opportunity to enhance the campus with unique plantings. Dr. Cheadle had a vision of developing the campus into an outdoor classroom, which would not only serve as an educational tool but would also create an environment of great beauty.

The Campus Flora Project was initiated on July 1, 2006 with funding from the Elvenia Slosson Foundation. With additional funding provided in July of 2007, faculty, staff, graduate and undergraduate students and community volunteers, continued working to successfully accomplish the goals of the Campus Flora Project.

Goals/Objectives

During the second year of funding, the goal of the Campus Flora Project was to continue to conduct plant surveys, photograph, georeference, and catalog the plants of UCSB. We planned to finish the interactive web map that spatially conveys the plant data gathered. Also we started to organize the valuable notes and records kept by former UCSB greenhouse managers and began development of additional brochures and the main Campus Flora web page.

During the last twelve months (15 December 2006 –15 December 2007), the Campus Flora team has successfully accomplished the following:

- Identified and georeferenced 500 plants
- Began development of informational web pages on specific plants and plant families
- Continued photography for mapped specimens and web pages
- Began development of two additional brochures (palms and Erythrinias)

- Completed data entry of all (1544) mapped specimens including but not limited to the following information: family, genus, species, locality, and GPS location
- Launched the Campus Flora interactive map (URL:<http://brac.geog.ucsb.edu/campusflora/>)
- Led more than 15 walking tours teaching students and community members about the unique flora present on campus

Discussion

The Campus Flora Project Committee includes many prominent members of the scientific community in Santa Barbara and continues to provide volunteer support for project team members. Dr. Bruce Tiffney, the Dean of the College of Creative Studies and a Geology faculty member at UCSB, is using the positive press generated by the Campus Flora project. The renewed interest in the plants on campus has enabled him to garner further faculty support of the project with the ultimate goal of reinstatement of the Campus Landscape Sub-committee. This committee will review design plans for new landscaping and provide recommendations for species that will further enhance the campus plant collections. Dr. Robert Muller of the Santa Barbara Botanic Garden and author of *Trees of Santa Barbara* has provided insights regarding identification of trees and labeling techniques. John Bleck, UCSB greenhouse manager from 1978-1992, identified one thousand plant specimens for the team and has provided advice regarding care for existing unique plants on campus. Randy Baldwin of San Marcos Growers has worked with Mr. Bleck to identify campus trees and has served as a liaison between the Campus Flora committee and the Santa Barbara Tree Diversity Project. The Santa Barbara Tree Diversity Project aims to plant 1000 trees (of 20-30 species) in the next five years in the Santa Barbara area. A variety of trees will be planted in public and open space areas including UCSB.

Bree Belyea continues to serve as Project Manager for the Campus Flora Project. Bree has been responsible for scheduling all the committee meetings, organizing the plant identification sessions, and coordinating the graduate and undergraduate student assistants. Ben Turner, a Geography department graduate student, continued to collect GPS data points of plants on campus, gather and enter information regarding those plants, and launched an interactive map to present all the information in a user-friendly format.

Between July 1 and December 15, 2007, a total of \$15,200 has been spent on salaries, benefits, supplies and direct costs. During the remaining seven months of the grant period, we will finalize and print the palms brochure and complete several of the informational web pages for the Campus Flora website. We anticipate utilizing all of the allocated funding by June 30, 2008.

Expected Outcomes of the Project

Education

In the last six months opportunities have arisen allowing the Campus Flora team to educate many diverse groups about the unique assemblage of plants on our campus.

Vacationing alumni, parents of incoming students, nursery managers, community gardeners, and botany students were guided through the flora. Instructional topics varied from propagation techniques for unique species to plant adaptations for herbivory defense. Members of the Campus Flora team also worked with instructors on campus to develop curriculum for several courses.

Website

The Campus Flora website will be completed by the end of the second year of funding. We will continue to plan and work on the development of the informational web pages. These pages will contain data regarding all aspects of the featured plants including care and culture information helpful to home gardeners, city arborists and facilities managers. The web pages will be a source of the most up to date and reliable data available for the species and plant families discussed.

Signage

The grant proposal for year-one included money for plant identification signs. UCSB has very specific guidelines regarding signage on the campus. The Campus Flora committee has reached a consensus regarding the signs to be used. The project team is continuing to work with campus officials to determine the type and location of signage to be installed.

Continuing Work

Project members will continue taking GPS points of plants until the flora of the main campus has been mapped. Our next walking tour brochure which showcases the palm collection on campus will be completed by the end of year two and additional brochures outlining tours of specific plant groups (Erythrinans and Conifers) will be completed as time permits. The original Campus Flora brochure and these supplementary brochures will be available for download from the website. The team will continue work with the Santa Barbara Tree Diversity Project and Physical Facilities to plant several new trees on campus.

Additional Collaborations

Will McClintock has been hosting our interactive web map through MSI and has provided invaluable technical support and assistance. However, a new collaboration formed with Spatial@UCSB promises to better serve the project through greater student participation and further development of the interactive web map to increase the search functions. Spatial@UCSB is a new research and resource center with the goal of increasing spatial knowledge on campus. Collaboration with this center will provide web hosting for the interactive web map and technical assistance for the GIS software used in creating the map valued at \$20,000.

UCSB faculty member Dr. Carla D'Antonio has loaned the Campus Flora team her Trimble Geo XH Handheld GPS unit. This unit, when combined with post processing software has allowed for the mapping of plant specimens to 10 cm accuracy. The unit is valued at \$13,000 and the Terrasync and Pathfinder software that we used with it are valued at \$3000. The Cheadle Center has recently purchased its own Trimble unit and will loan it to the Campus Flora project as needed.