

The University of Hawaii as an Arboretum

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The University of Hawaii was founded in 1907 as a land grant College of Agriculture and the Mechanic Arts in Hawaii, becoming the University of Hawaii in 1920. It occupies 300 acres in the Manoa Valley of Honolulu, Hawaii about 85 ft above sea level with a rainfall range (30 year average) of between 40 and 60 inches per year (seaward and mountain-ward edges of the campus). Winter low temperatures occasionally drop into the low 60s (°F), while summer high temperatures average about 85°F. Day lengths range from 10 hr 50 min to 13 hr 50 min. The average on-campus enrollment is about 20,000.



In 1914, botanist, Dr. Joseph F. C. Rock, was charged with the establishment of a 20 acre campus arboretum. In the next four years, Rock planted more than 500 species of plants from Hawaii, the tropics and subtropics, some of which remain many decades later. A partial listing of his plantings can be found at www.hawaii.edu/bgm/landscaping/historical/rock_plant_lists.pdf

One of Dr. Joseph Rock's legacies was a collection of palms, originally numbering more than 60 species, adjacent to the original administration building of the campus, Hawaii Hall. Plans are underway to re-establish the collection in honor of recent Interim Chancellor for the UHM campus, Dr. Denise Konan.



Native plants with ornamental and cultural value have been added to the campus landscape. The Sherman Hall courtyard won a Scenic Hawaii landscaping award in 2006 for its design and installation of native species, while the East-West Center at the University of Hawaii established Hawaiian ornamentals in a garden fronting its student recreation building.



Hibiscus kokiio ssp. saintjohnianus *Caesalpinia kavaianensis* *Gardenia brighamii* *Hibiscus rockii*
Metrosideros polymorpha *Psydrax odorata*

Like many campuses, the university grounds become a receiving ground for plants no longer desired in the offices of faculty and staff. In part, to encourage better stewardship of the campus environment, the Grounds Superintendent and Landscape Advisory Committee have developed an Adopt-a-Landscape project system. Faculty, staff and students can apply to develop and maintain a planting, usually adjacent to their building. (See example of form at www.hawaii.edu/bgm/landscaping/). Success has been mixed as initiators retire and leave campus or the work of maintaining a garden falls back on the grounds crew, who usually reduce the plantings to something more easily maintained.

A recent grant to the University of Hawaii from the Getty Foundation has enabled cataloging of the historic buildings and landscapes of the campus. The existing plant materials have been identified and their condition assessed, and the loss of plants has been recorded through comparison with early campus plant maps.



Tabebuia impetiginosa - Krauss Hall

Through a program of the City & County of Honolulu, exceptional trees and tree groupings are recognized as Exceptional Trees. The University of Hawaii campus hosts a number of such trees. Memorial trees dot the campus, recognizing famous visitors and public figures as well as well-loved faculty and staff. A listing of these trees is also found at: www.hawaii.edu/bgm/landscaping/.



Exceptional trees: *Adansonia digitata* (L) and *Couroupita guianensis* (R), the Thornton Wilder tree.

A fence along a parking lot serves as support for vines used in an ornamental plant identification class, while the Botany Department maintains a courtyard of plant materials that support their classes.



Clerodendrum splendens



A Landscape Advisory Committee beautification project installed *Brachycthon* trees in a narrow zone between a parking lot and the sidewalk.



Students also recognize the atmosphere of a green campus environment. When a particularly attractive flowering tree near the main library was threatened with removal, a student petition movement gathered more than 500 signatures to request that it not be taken out. On the other hand, some trees with "stinky odors" have been the target of student outcry for their removal.

Early campus maps to the plant materials provided common and botanical plant names keyed to numbered signs on the trees. Additional labeling was undertaken by botanist Ruth Gay, with a major effort in 2002-2005 to map and label campus plants by Dr. Gerry Carr, a taxonomist in the Botany Department. The metal labels, supported by donations, provide common and botanical names as well as plant family. Although more than 500 species can be found on the campus, not all materials are labeled, and not all labels have survived vandalism.

In 2006 a third version of the campus map with a new self-guided tour route was prepared by Drs. Sterling Keeley (Botany) and Richard Criley (Horticulturist) and Ph.D. student Mashuri Waite, who elaborated upon the species by providing origins and uses of 85 plants. The map also identified a number of planned landscapes and their designers. A plant material list linked to descriptive materials was prepared by Dr. Carr (www.hawaii.edu/bgm/landscaping/).

In brief, the University of Hawaii at Manoa campus fulfills many of the same preservation and educational functions of botanical gardens and arboreta. It offers a pleasant, shaded environment that encourages and fosters positive academic and social interactions. The campus is much more than just the buildings and their rooms: it is also the functional and aesthetic organization of outdoor spaces and all they include. Specifically, the campus landscape and its associated amenities are the fabric that holds the buildings together. The impression of a university campus has a powerful effect on students, faculty, staff and visitors and can influence decisions to choose that university as an educational institution. Coupled with its affiliated institution, the Harold L. Lyon Arboretum, the University of Hawaii offers great opportunities to study a wide range of tropical and subtropical plants.