Biodiversity Collections Digitization Initiatives
University of Hawaii

Michael Thomas, Joseph F. Rock Herbarium
University of Hawaii at Mānoa
Living Collection - Campus Arboretum

• 1911-1921
  Campus plant diversity established and assisted by Joseph Rock collections

• Introduced trees primarily from SE Asia
Campus Biodiversity Heritage

- 1957-80s campus mapped
  - Rock, Harold St. John, Gerry Carr
- Geo-referenced in the 1990s
  - 3000 trees mapped
  - 700 species
- 100 species vouchered in 2007
- Leads to development of the Campus Heritage Project – 100% resurvey of plant inventory
African Tulip Tree
*Spathodea campanulata* (BIGNONIACEAE)
Introduced, Africa
This tree from the forest of West Africa has erect clusters of large, bright orange, tulip-shaped flowers much of the year. It is known as *baton de sorcier* in Ghana. It is said the flowers are used for black magic. The first African Tulip Tree was brought to Hawaii about mid-16th century. It is now found in tropical countries worldwide and has become invasive in Hawaii. A gold form is found on Dole Street near Holmes Hall.

Specimens
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[View Encyclopedia of Life.org](https://bycell.mobi/uhm?phone=ipad)
Connecting Collections

• 2008 Partnership with Museum Studies Program and development of the UH Museum Consortium to support art galleries, living and non-living collections.

• Focused on collection inventories and digitization of archived photos and video (VHS)

  - Campus Plants
  - Fish Museum, Biology Dept.
  - Herbarium, Botany Dept.
  - Insect Museum, Entomology Dept.
  - Marine Mollusks, Archeology Program
  - Land Snails, Biology Dept.
  - Waikiki Aquarium
  - Lyon Arboretum
  - UH Art Galleries
PACIFIC SCIENCE

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BY ISSUE DATE  AUTHORS  TITLES  SUBJECTS

Appearing quarterly since 1947, Pacific Science is an international, multidisciplinary journal reporting research on the biological and physical sciences of the Pacific basin. It focuses on biogeography, ecology, evolution, geology and volcanology, oceanography, paleontology, and systematics. In addition to publishing original research, the journal features review articles providing a synthesis of current knowledge.

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Aplustrum amplustre
Synonym: Hydatina amplustre.
Common Name: Pink Bubble, Swollen Bubble.
Adult Size: 22 mm.
Location: H. amplustre is a familiar species throughout the Indo-West Pacific (Kay, 1979).
Habitat: These opisthobranchs are common in shallow water, found in muddy, rubble-strewn areas along the shoreline where they burrow into the substrate (Kay, 1979).
Consortia Building and Partners

- Consortium of Pacific Herbaria
  $1.4 million (BRC), 3 yr. NSF funded
  - Regional partners (6 countries, National Parks)
  - NTBG
  - Bishop Museum
    - > 600,000 specimens
    - Geolocated
    - Imaged
The Consortium of Pacific Herbaria (CPH) supports the enhancement of research cyberinfrastructure within Hawaii and the Pacific basin for implementing shared specimen data hosting of plant specimens. The CPH network is a regional node of the US Virtual Herbarium.
Regional Partners

The Belau National Museum and the University of Hawaii’s Department of Botany work together for the Regional Herbaria Project. (See story on page 2)
Consortium of North American Lichen Herbaria

Joseph F. Rock Herbarium - University of Hawaii (HAW)

Founded in 1908, the Joseph F. Rock Herbarium (HAW) serves as the official university repository for botanical plant specimens. It is the result of decades of plant exploration by some of the leading researchers in the Pacific basin and collections continue to expand. Today, the herbarium is part of the University Museum Consortium, and comprises approximately 50,000 dried preserved specimens. There are currently more than 6500 lichens databased and imaged with an additional 5000 specimens remaining undetermined.

Contact: Michael Thomas, Collections Manager (mthomas@hawaii.edu)

Home Page: http://www.herbarium.hawaii.edu/

Management: Data snapshot of central database

Next Update: 11 March 2014

Global Unique Identifier: e4aaabf-8900-42c7-be93-415b8a9e75a0

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Rights Holder: University of Hawaii

Collection Statistics:
- 4334 specimens
- 9% georeferenced
- 71 families
- 195 genera
- 923 species

Extra Statistics:
- Show Family Distribution
- Show Geographic Distribution
Additional regional support

- **Melanesia**
  - Vanuatu
  - Solomon Islands
  - New Caledonia
  - Papua New Guinea

- **Asia**
  - Taiwan
  - Philippines
  - Bhutan

- Connectivity with Australia/New Zealand Herbaria Networks
  - Additional 2.5 million records
**Name**: Tapa heater

**Indigenous Name**: Kae

**Catalog Number**: haw.1.1.2013

**Institution**: HAW

**Collection Date**: 2013-12-29

**Description**: Club shaped; flat on both ends; rounded handle; 4-sided square heater with carved vertical striations. The grooved sides would be used to soften the *hiapo* (raw paper mulberry bark) fibers in the initial stages of the beating. The smooth side would be used to flatten and join pieces together by felting. 38cm x 4.5cm.

**Collector**: Michael B. Thomas

**Collector Number**: MBT1

**Region**: Pacific

**Country**: Tonga

**Island**: Tongatapu

**City**: Nuku’alofo

**Kingdom**: Plantae

**Family**: Casuarinaceae

**Genus**: Casuarina

**Species**: equisetifolia

**Common Name**: toa

**Use(s)**: ironwood

**Plant part(s)**: tools wood

**Related Species**: Artocarpus altulis

**Connected Objects**:
- [War Club](#)
- [Bowl](#)

**Specimen Images**:
- [Image 1](#)
- [Image 2](#)
- [Image 3](#)
- [Image 4](#)
Acknowledgments

**UH Botany Department**

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**Herbaria Consortium Partners**

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Waikato Aholelei, Tonga – Ministry of Agric./Forestry
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and many assistants & volunteers...

**Museum Studies**

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