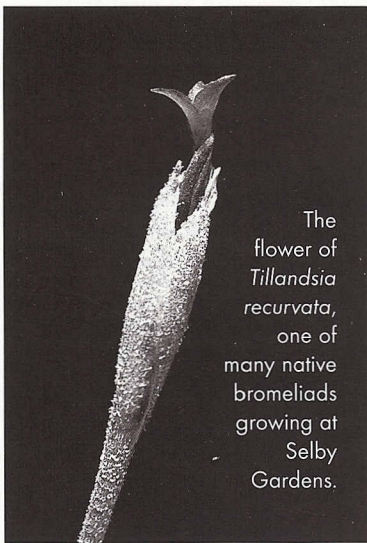


Native Plants at Selby Gardens

By Lee Desmon

Photos by Bruce K. Holst.

A magnificent slash pine (*Pinus elliottii*) stands guard on the south side of the gated entrance to 926 South Palm Avenue in Sarasota, Florida. The girth of this former champion is 10 ft., 6 inches at breast height. Bromeliads perch on its sturdy limbs above the iron gates that mark the entrance to Selby House, the former



The flower of *Tillandsia recurvata*, one of many native bromeliads growing at Selby Gardens.

waterfront estate built by William G. and Marie M. Selby in the 1920s. Willed to the community by Marie Selby in 1971, the original seven acres has been transformed into the core of a botanical garden, known worldwide and operated, as Marie Selby wished, "for the enjoyment of the general public." Part of this enjoyment comes from the propagation, research, and display of native plants. Because so much of the Florida peninsula has been developed and landscaped with exotic plants, Selby

Gardens seeks to raise public awareness of native plant communities and their benefit to the environment.

The founding members of the Selby Gardens Administrative Committee consulted with the New York Botanical Garden and the University of Florida Department of Agriculture and decided that a botanical garden specializing in epiphytes (Greek: *epi* = upon, *phytes* = plants) would be appropriate for the site. Among the plants that live on host trees and shrubs are many orchids, bromeliads, aroids, gesneriads, ferns, and mosses. Epiphytes derive moisture and nutrients from rain, dew, and litterfall, but not from their hosts; thus, they are not parasites.

Selby Gardens opened to the public on July 7, 1975, as a non-profit organization; the admission fee was one dollar per adult. Since then the Gardens has doubled in size to 14 acres. The Gardens, a center of botanical research, conservation, education, and display, is set in a live oak hammock that supports numerous native plant species.

Native Plants on Site

In all, Selby Gardens currently maintains 225 species of native plants, some naturally occurring on the site and others introduced. On the grounds, visitors can find such native species as the butterfly orchid (*Encyclia tampensis*) and airplants (*Tillandsia recurvata* and others) that are members of the bromeliad family. The horticultural staff has reintroduced these and other epiphytes to branches of native live oak (*Quercus virginiana*), and cabbage palm (*Sabal palmetto*). Other native plants include saw palmetto (*Serenoa repens*), wax myrtle (*Myrica cerifera*), sea grape (*Coccoloba uvifera*), and pigeon plum (*Coccoloba diversifolia*).

Selby Gardens houses the world's most outstanding collection

of living epiphytic plants, including a number of native species. The most common epiphyte in Florida, Spanish moss (*Tillandsia usneoides*), is

not a true moss but a member of the bromeliad family. In Florida, most of the 75 native epiphytes are found growing wild only in swamps of the Fakahatchee Strand State Preserve and in tropical hammocks of Everglades National Park. Selby Gardens grows a number of these more tropical species in its Greenhouse Collection.

Several native plant species listed as threatened or endangered by the Florida Department of Agriculture and Consumer Services grow in the greenhouses or on the grounds. For example, the Fuch's or strap-leaved bromeliad (*Guzmania monostachia*), the cowhorn orchid (*Cyrtopodium punctatum*), and the Florida dancing-lady orchid (*Oncidium floridanum*) grow in the greenhouses. The cuplet fern (*Dennstaedtia bipinnata*) grows northwest of the Christy Payne Mansion, and the sea lavender (*Argusia gnaphalodes*), on the bayfront across from the Activities Center.

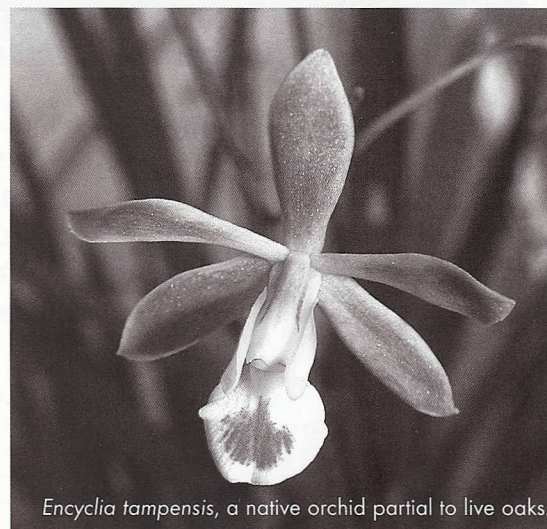
Mangrove Baywalk and Sanctuary

A stroll on the wood-decked Baywalk takes visitors through a native mangrove forest. Vital to Florida's coastal plant communities, native mangrove species include: red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia germinans*), and white mangrove (*Laguncularia racemosa*), along with their upland neighbor, the buttonwood (*Conocarpus erectus*). Mangroves, plants adapted to the extremes of a saltwater environment, have modified root systems that help in gas exchange. They collect floating debris, protect against tidal erosion, provide nutrients for marine animals, and create hiding places for crabs and other scavengers. Informative signage along the Baywalk helps visitors test their plant identification skills in distinguishing the mangrove species.

Shoreline Restoration

In 1997, Selby Gardens undertook a Shoreline Restoration Project to demonstrate the value of protecting and restoring coastal zone natural resources. The project was designed to show the public, especially school children, the impact of this environmental issue on the community. Six hundred feet of shoreline at Selby Gardens, altered with exotic plants in the 1930s, was restored with native vegetation. The project began with the creation of a tidal lagoon on the lawn in a natural seepage area.

The lagoon provides a settling pond that filters solids from rainwater runoff on its way to Sarasota Bay. A tidal marsh surrounded by mangroves, black rush (*Juncus roemerianus*), and giant leather fern (*Acrostichum danaeifolium*) extends from the lagoon



Encyclia tampensis, a native orchid partial to live oaks.

southward toward the bay. Adjacent to the marsh is a reconstructed shell mound reminiscent of an Indian mound that once stood nearby (thus the name Mound Street for the adjacent section of U.S. Hwy 41). The Serenoa Chapter of FNPS, which holds its meetings at Selby Gardens, assisted with the planting, as did other groups and volunteers. The FNPS Landscape Awards Committee accorded the project First Place in its Institutional/Educational Category (1998). The Selby Gardens Horticulture Department monitors the restoration.

Herbarium and Research Library

Of the 85,000 plant specimens preserved in the Selby Gardens Herbarium, more than 2,000 are native plants of Florida. The herbarium, known worldwide as SEL, is located in the Stark Botanical Research Center, one block from the main gardens. The herbarium is available for use by visiting scientists, botany students, and other interested persons, upon request. The Selby Gardens Research Library, which specializes in epiphytes, has numerous books and journals featuring native plants of Florida. The library also is available for use upon request.

Orchid and Bromeliad Identification Centers

The Orchid Identification Center (OIC), founded at Selby Gardens in 1975, accepts submissions of fresh plant specimens and provides taxonomic identification for a \$12/plant fee. The Mulford

B. Foster Bromeliad Identification Center (BIC) was founded in 1979 to provide the same service for bromeliad specimens, with a subsidized fee of \$5. Both centers welcome submissions of native orchids and bromeliads.

Field Guides to Native Plants

To promote the understanding and conservation of native plants worldwide, Selby Gardens, during its Silver Anniversary in 2000, established the Selby Botanical Gardens Press. In addition to the research journal, *Selbyana*, the Press publishes proceedings of botanical conferences, taxonomic works, and color-illustrated field guides to plants.

To help identify native epiphytes, the SBG Press published *Common Epiphytes of Florida* by Bruce Holst. This laminated field guide (designed for backpacks) provides color photographs, common names, scientific names, and ranges for one orchid, six bromeliads, and four ferns native to Florida.

Holst also authored the laminated *Field Guide to the Mangroves of Florida*. Color photographs of leaves, flowers, fruits, and roots of red, black, and white mangroves, and buttonwood, help readers distinguish these trees, which often grow together with entangled limbs and roots. The guide describes uses for mangroves, such as tanning agents made from red mangrove bark, honey produced from black mangrove and noted for an excellent flavor, and smoke-free charcoal made from buttonwood.

A prize-winning project sponsored by the Gardens and Pine View School in Sarasota County involved development of a nature trail at the school and publication of a field guide to the trail. The Nature Trail at Pine View School describes five plant communities at the school: pine flatwoods, fresh-water marsh, willow swamp, oak-palm hammock, and retention pond thickets. It also identifies 75 species of trees, shrubs, ferns, epiphytes, vines, and herbs native or naturalized at the school.

The SBG Press is working on field guides that will feature plants of Gulf Coast barrier islands, native Florida bromeliads, and plants of the Fakahatchee. For more information, contact SBG Press at 811 South Palm Avenue, Sarasota, FL 34236-7726. Tel: 941-955-5773 x10. Fax: 941-951-1474. Email: sbgpress@selby.org. Check the online catalog and order form at www.selby.org/research/pubs.htm. ☀

Fuch's or Strap-leaved Bromeliad

Left: Selby Gardens is home to the world's most outstanding collection of living epiphytic plants, including several native species, such as the endangered Fuch's or strap-leaved bromeliad, *Guzmania monostachia*, grown in greenhouses. Drawing from *Rare and Endangered Biota of Florida, Volume 5: Plants*, by Daniel Ward (Gainesville: University Press of Florida, 1978)

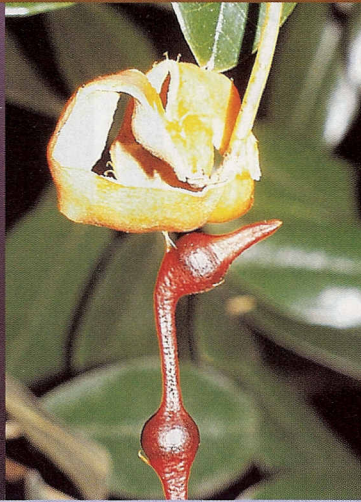
ABOUT THE AUTHOR: Lee Desmon, a marketing volunteer with the Selby Botanical Gardens Press, is a retired engineer. He was on staff at the National Advisory Committee for Aeronautics (NACA), which became NASA, and served on the Editorial Committee of the Lewis Flight Propulsion Laboratory in Cleveland, Ohio. He and his wife reside in Sarasota.



Native Plants Alive and Well at Selby Gardens

Selby Gardens, meeting place for the Serenoa Chapter FNPS, is home to over 225 species of native plants, some naturally occurring and others introduced. Several threatened and endangered native species grow on the grounds or in greenhouses. With the world's most outstanding collection of living epiphytic plants, Selby Gardens grows some of Florida's rarest tropical epiphytes found in the wild only in swamps and tropical hammocks of the Everglades.

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PHOTOS, CLOCKWISE FROM ABOVE LEFT:

Recognize these blooms? Flowers of the red mangrove, *Rhizophora mangle*. Upper right, the distinctive fruit of the native Jamaica caper, *Capparis cynophallophora*. Below left, the restoration pond at Selby Gardens serves as a native plant sanctuary bordering on downtown Sarasota.

Photos by Bruce K. Holst.

