

Have We Lost the Young Palm Orchid?

A Short Hundred-Year History

by Roger Hammer

Very few living persons could possibly still remember old Brickell Hammock, a majestic tropical hardwood forest that reportedly extended five miles from the mouth of the Miami River along the Silver Bluff limestone ridge to Coconut Grove at Biscayne Bay in Dade County. The hammock was still intact in the 1890s, but not long after the turn of the century, most of it was cleared to make room for lavish bayfront homes. The hammock was owned by and named in honor of William Brickell, a wealthy lawyer, accomplished sailor, self-described roustabout and owner of an Indian trading store situated near the mouth of the then pristine Miami River.

In 1895, Brickell donated considerable acres of land to railroad magnate Henry M. Flagler, in an attempt to encourage him to bring his railroad southward, thereby making property values skyrocket. Flagler's crowning ambition — the opening of his Florida East Coast Railway's Florida Keys extension — was finally realized when the first train arrived in Key West at 7:30 a.m. on January 22, 1912. The great Hurricane of 1935 brought 200 m.p.h. winds and a seventeen-foot storm surge to the Florida Keys, killing 577 people and sending Flagler's railroad permanently to rest in the annals of Florida's history.

It was during those early turn-of-the-century years that much of South Florida's natural environment underwent rapid transformation from wilderness to metropolis, as more and more people sought to make the area more amenable for settlement. The great, unchecked surge of development so discouraged intrepid botanist John Kunkel Small that he wrote *From Eden To Sahara: Florida's Tragedy*; later, botanist Thomas Barbour published *That Vanishing Eden*. So, where there was once the large Brickell Hammock rich in flora, today there is busy Brickell Avenue and the



Chuck McCartney

Tropidia polystachya, young palm orchid, typical habit. Photo taken in Alice Wainwright Park, October 18, 1986.

bayfront homes of Sylvester Stallone and Madonna. Despite all of the destruction, a few small fragments of the original hammock remain. These include Simpson Park and Alice Wainwright Park (both City of Miami parks) and the site of industrialist James Deering's mansion, Villa Vizcaya, which is now a Metro-Dade County park.

In April 1897, botanist Allan Hiram Curtiss (1845-1907) made a remarkable discovery while botanizing in old Brickell Hammock. He found, for the first time in the United States, the young palm orchid, *Tropidia polystachya*. The young palm orchid does, indeed, look like a young seedling palm. It grows terrestrially in sandy humus and is exceptionally difficult to find in the dappled sunlight of the forest floor. The elliptic, lanceolate leaves are borne on slender, branched woody stems that stand about twenty to thirty centimeters tall. Each leaf is dark green, prominently veined, and

longitudinally pleated. Ephemeral flowers are produced principally in October, but just a few flowers in the dense raceme are open on any given day, and these are closed by midday. The flowers are greenish white and are adorned by a bright yellow patch in the middle of a snow white lip.

The genus *Tropidia* was named in 1831 by John Lindley from the Greek *tropideion*, meaning "keel," in allusion to the keeled, or boat-shaped, lip typical of the genus. The specific epithet, *polystachya*, refers to the "many spikes" that make up the inflorescence. Globally, *Tropidia polystachya* ranges from Dade County in South Florida, the Bahamas, the Greater Antilles, Mexico, Central America and Venezuela, to the remote Galapagos Islands. The type locality is listed as "Jamaica and Hispaniola."

Four herbarium specimens deposited at the New York Botanical Garden reveal an interesting history of early collections and collectors of the young palm orchid. The fern enthusiast Alvah Augustus Eaton made a collection in Brickell Hammock in December 1903, and J. K. Small along with Joel Jackson Carter pressed a flowering specimen on October 24, 1906, also from Brickell Hammock. Two other specimens are of particular interest. One was collected in June 1915 by J. K. Small and Charles Mosier in "Brogdon Hammock," and the other was collected by J. K. Small, K. W. Small, and J. B. Dewinkler, at "Warwick Hammock near Cutler" in December 1922. I've been unable to find any information concerning the historical location of Brogdon Hammock, but a 1958 paper on colonies of liguus tree snails reveals that Warwick Hammock was at the northeast corner of SW 136 Street (Howard Drive) and SW 67 Avenue (Ludlam Road), now the site of Miami's Devonwood development.

Other interesting collections include a single, sterile University of Florida

herbarium specimen from Brickell Hammock deposited by Ray Garrett in March 1953. This date is curious because Brickell Hammock had long before been razed for development. It can only be assumed that this specimen was collected in the parcel that is now Alice Wainwright Park. There is also a sterile specimen collected by "W.G.A.," and dated August 24, 1954 from "Cutler, Dade County," that is deposited in the herbarium at Everglades National Park. Native orchid enthusiast Chuck McCartney thinks that the collector's initials belong to William G. Atwater. Unfortunately, the exact location of Atwater's collection is unknown.

One other interesting record comes from a 1916 plant list for Addison Hammock compiled by J. K. Small. *Tropidia polystachya* is listed as occurring in Addison Hammock, but no voucher specimens can be located to confirm its possible historic occurrence there. Addison Hammock is a 100-acre hardwood forest located within a Metro-Dade County park known as the Charles Deering Estate, which borders Biscayne Bay. Charles was James Deering's half brother and a close friend and correspondent of J. K. Small. It is certainly possible that *Tropidia* occurred, or even still occurs, within Addison Hammock, since it lies only about two miles from the historic location of Warwick Hammock. Unfortunately, early reports of plants occurring within Addison Hammock are suspect, because letters written by J. K. Small reveal that he purposely introduced orchids and other plants to the estate of Charles Deering. A parade of botanists have scrutinized the Addison Hammock flora over the years and have made no recent reports of the young palm orchid at this site.

In October 1974, I visited Alice Wainwright Park to search for the young palm orchid, and located thirty-seven individual plants, thirteen of which were in flower. The population was monitored over subsequent years and in April 1980, a routine visit revealed that the City of Miami Parks Department had cleared a nature trail through the hammock and had unwittingly

placed the trail directly through the largest population of orchids. In October 1980, an extensive search of the hammock with botanist George N. Avery revealed only twelve plants, one of which had unopened

became a popular meeting place for a segment of Miami's population. This uncontrolled access, with makeshift dwellings and daily, relatively heavy foot traffic through the hammock, was apparently

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Young palm orchid in bud.

flower buds. In 1989, I was accompanied by Carol Lippincott who, at the time, was curator of endangered plants at Fairchild Tropical Garden in Miami. Our search turned up a mere six plants.

I decided to monitor the few remaining plants during their fall flowering season, pollinate the flowers by hand, and have the seeds flasked. This was to be a last ditch effort to rescue the species and re-introduce seedlings into appropriate habitat. It was too late. No flowers were produced for three consecutive years and then, in August 1992, South Florida's debt of thirty-two hurricane-free years came due with the arrival of Hurricane Andrew. The hammock, like most everything else in the hurricane's path, suffered damage. The hammock was infiltrated by homeless people and also

too much for the young palm orchid. Sixteen trips over four years have always ended in disappointment, and it can only be assumed that we may have lost this native orchid from

the flora of the United States. Surveys of all of the other existing fragments of old Brickell Hammock have been fruitless and, other than Addison Hammock, all the other locations where this orchid was historically found have been lost to development.

Anyone who has ever read Luer's *The Native Orchids of Florida* would know that the young palm orchid was in trouble by reading Luer's opening remarks concerning this unassuming little plant: "Our native *Tropidia* is on the verge of extinction. Only a few colonies still survive in a very few of the dense limestone hammocks near Miami, and 'progress' will surely lead to their end before too long."

Allan Hiram Curtiss will always have the distinction of being the very first person to report the young palm orchid in Florida one hundred years ago, and it is troubling to think that I may have the dubious distinction of being the very last person to recognize this tropical botanical jewel in a small remnant of old Brickell Hammock. ✨

I would like to thank Patricia Holmgren, Director of the Herbarium, New York Botanical Garden, for her invaluable assistance in supplying herbarium label data concerning *Tropidia polystachya*. — R. Hammer

Roger Hammer is a naturalist and the Resource Management Supervisor for the Metro-Dade County Parks and Recreation Department. He has written numerous articles on orchids and Florida native plants for both *The Palmetto* and a variety of other publications. Hammer is well known to FNPS members for his five-day, 20-mile solo trek through the heart of the Fakahatchee swamp, in search of rare native orchids. Look for his opening address on recreating Florida's "good ole days" at the FNPS spring conference in May (see Calendar, page 4).