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Palmetto

Butterfly Orchid ● Forests Retreat as Sea Levels Rise ● Apalachicola River Wildlife Environmental Area

Florida's Beloved Butterfly Orchid

Encyclia tampensis

Article & Photos by Roger L. Hammer

It wasn't safe to be wandering around in Florida's wilds in 1846, but that's the year Dr. John Torrey (1796–1873) made a very noteworthy botanical discovery during one of his outings. The Second Seminole War had just ended four years prior and the Third Seminole War was brewing when he spotted a cluster of orchids growing on a tree near Fort Brooke, at present-day Tampa. Although Torrey made the very first collection of the butterfly orchid *(Encyclia tampensis)*, he is most famous in Florida for his name being commemorated in the small coniferous genus *Torreya*, and the later dedication of Torreya State Park west of Tallahassee, where the Florida Torreya *(Torreya taxifolia)* grows.

Relatively few orchids were known from Florida when Torrey made his discovery, but the state now boasts a total of 108 species and varieties of native orchids, far more than any other state (Hawaii has only three native orchids, and Alaska has more than thirty). The majority of Florida's native orchids are state-listed as either Endangered or Threatened, and although locally common, the butterfly orchid is categorized as Commercially Exploited due to illegal collecting for the booming orchid market.

Renowned British botanist John Lindley (1799–1865) was appointed to the chair of botany at University College in London, England in 1829, where he remained until 1860. Torrey sent specimens of the new orchid to Lindley, who described the species in 1847 as *Epidendrum tampense*, to acknowledge the Tampa Bay region in Florida where it had been found.

Today, Florida's beloved butterfly orchid has the distinction of being the most common and widespread native epiphytic orchid in the state, ranging throughout much of the peninsula south through the Florida Keys. It grows on trees (including palms), as well as the trunks of dead trees and fallen logs, in a wide variety of habitats. It can be found in upland hardwood forests, wooded swamps, cypress domes, pond-apple and pop ash sloughs, mangrove-buttonwood associations, and sometimes even in fire-prone pinelands and scrub. The only other place it occurs outside of Florida is in the Bahamas, although there are dubious references to it being found in Cuba, as well.

The butterfly orchid is decidedly cold tolerant, ranging further north in Florida than any other epiphytic orchid except for the green fly orchid *(Epidendrum conopseum)*, which has a range that encompasses the region from Florida's Highlands County northward as far as Louisiana and North Carolina. Needless to say, the green fly orchid and the butterfly orchid can both survive freezing temperatures, which is extraordinarily unusual for epiphytic orchids.

Butterfly orchids can vary widely in size, from stunted, sun-reddened plants growing on dead, nutrient-deficient tree trunks, even while subjected to salt spray, to lush plants in shady forests and swamps that produce long, linear, dark green leaves emerging from plump, rain-swollen pseudobulbs. South Florida botanist Chuck McCartney has likened the plants to a bunch of scallions, which they do closely resemble.

Butterfly orchid flowers can number from one to numerous, with some clusters producing stunning displays of flowers. Each flower typically has greenish-brown sepals and petals with a white lip adorned by a blotch or parallel lines of dark pink in the center. However, look at enough butterfly orchids and you will see much variation in size, color, and even scent, especially in the southernmost counties of Florida.

Left: A cluster of normal-colored flowers on a butterfly orchid in Florida's Everglades. Surviving in such harsh conditions isn't easy for an orchid, as evidenced by the number of dead pseudobulbs.

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Some populations produce flowers with a faint scent of honey, while others emit a subtle chocolate aroma. The butterfly orchid is at its height of flowering from May to July, but individual plants might flower at any time of year, even in mid-winter. Albino forms (forma *albolabia)* sporting chartreuse sepals and petals with a snow-white lip are quite rare in the wild.

Last year, on a canoe trip into Everglades National Park with my wife, Michelle, we encountered a scattered population of butterfly orchids that were remarkably different than normal, so I returned solo with my camera and canoe the following day. This was undertaken with much cause for concern and wariness, not because of the thick clouds of tormenting Everglades mosquitoes and deer flies, nor even the large and belligerent alligators and crocodiles, but because two months earlier a pair of manatees flipped my canoe in an Everglades creek near Coot Bay. I've heard that manatees are called "gentle giants," but try skidding a canoe up on top of a submerged manatee and you'll think differently. My 16' Kevlar canoe suddenly went airborne, with mud, water, and detritus flying in every direction, landing hard on the port gunwale and filling half the canoe with water. I braced to keep from flipping as the water careened toward the starboard side, but the errant sea cow's friend decided it was high time to skedaddle, too. As it barreled beneath my canoe its enormous paddle-like tail sent me flying like a boulder being slung from one of those medieval catapults. Personally, I refrain from calling them gentle giants.

May 13, 2011 found me in the same solo canoe with expensive camera gear on board, fully aware that I'd be paddling in manatee territory and would have to stand up in order to photograph the orchids. What worked best was pushing two stakeout poles into the mud on each side of the canoe and firmly attaching the poles to the center thwart with stout bungee cords. That setup held the canoe stable enough to stand and photograph from using a tripod, or to disembark and climb the dead trees, killed

A stunning flower with a solid pink lip, pink lateral lobes, and sepals and petals accented with pinkish-purple.

A remarkably pretty flower with cinnamon sepals and petals fading to mustard yellow. The inflorescences on this plant stood uncharacteristically straight upright.

Looking white from afar, this plant had flowers with creamy-white sepals and petals accented with pink, and an unusually wide lip.

The green sepals and petals with a matrix of brown made these flowers stand out among the normal-colored flowers on the same tree.

in 1960 by Hurricane Donna, where the orchids were growing along a three-mile stretch of mangrove shoreline. It proved to be well worth the effort and monetary risk, even though I had to perform some maneuvers that would make any Cirque du Soleil acrobat profoundly jealous.

This variation is undoubtedly the result of an unsettled gene pool. Dr. Carlyle Luer, in his marvelous book, *The Native Orchids of Florida*, wrote, "Natural hybridization in the distant past probably accounts for the variations in color pattern, size, and scent, which are commonly found in the southeastern part of the peninsula. Genes from species such as *E. phoenicia* and *E. plicata* probably still circulate although the parent plants have long ago disappeared."

The only thing to add is that Luer's observations hold true for the entire southern tip of the peninsula and the Florida Keys. Orchid growers who have selfed flowers of *Encyclia tampensis* and propagated them from seed have found that the resulting plants produce flowers of widely varying colors, indicative of a hybrid swarm. Selfing refers to pollinating a flower with its own pollen.

The next time you're exploring southern Florida's wilds in late spring or early summer pay close attention to flowering butterfly orchids. If you can stand the mosquitoes, you just might encounter some floristic gems to admire and photograph. If you're in a canoe with your camera gear, heed my advice and be extremely wary of the not-so-gentle giants.

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About the Author

Roger L. Hammer is a retired professional naturalist, botanist, and author of *Everglades Wildflowers, Florida Keys Wildflowers, Exploring Everglades National Park*, and *Florida Icons–50 Classic Views of the Sunshine State* (Globe Pequot Press). He was the keynote speaker at the Florida Native Plant Society's 17th Annual Conference, and was the recipient of the Marjory Stoneman Douglas Award from the Dade Chapter of the Florida Native Plant Society, and the Green Palmetto Award in Education from FNPS. Roger lives in Homestead with his wife, Michelle.

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The purpose of the Florida Native Plant Society is to conserve, preserve, and restore the native plants and native plant communities of Florida.

Official definition of native plant:
For most purposes, the phrase Florida native plant refers to those species occurring within the state boundaries prior to European contact, according to the best available scientific and historical documentation. More specifically, it includes those species understood as indigenous, occurring in natural associations in habitats that existed prior to significant human impacts and alterations of the landscape.

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