

The Woolly Croton

Host for Two Endemic South Florida Butterflies

by Mark Salvato

The native shrub woolly croton (*Croton linearis* Jacq.) is part of the pineland forests of South Florida. This particular croton species is of special interest due to its co-evolved relationship with two endemic butterflies – the Florida leafwing (*Anaea troglodyta floridalis* Comstock and Johnson) and the Bartram's hairstreak (*Strymon acis bartrami* Comstock and Huntington) – both use woolly croton as their sole host plant.

Croton linearis is not a threatened species and it continues to exist in several scattered and sometimes very localized areas on the mainland where stands of slash pine (*Pinus elliotii* var. *densa*) remain. However, on the lower Florida Keys, the plant has all but disappeared as forests have been cleared for development. The one exception is Big Pine Key, which maintains a large population. As a result of the plant's dispersion on the mainland and an enormous reduction in the host density that once covered several keys, populations of the two butterflies have been drastically affected in recent decades. In response, the status of the leafwing and hairstreak butterflies are being evaluated. If these species are deemed threatened, then a captive-propagation and release program, one similar to that done for the endangered Schaus' swallowtail, may be considered. Such a captive breeding program would obviously require a large rearing stock of the host.

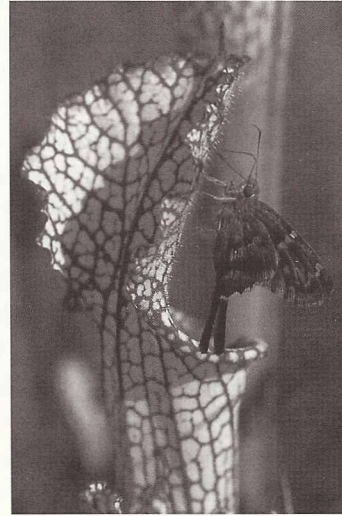
So, as I began a year-long census of these butterflies in South Florida in early 1997, I also sought to find a source for *Croton linearis*. Although some species of *Croton*, for example *C. grandulosus* and *C. punctatus*, were of brief interest for beach erosion control purposes after Hurricane Andrew, they are now hard to find. *Croton linearis* wasn't used for such purposes and it's by no means an ornamen-

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Butterflies Feed at White-Topped Pitcher Plants

by Marc C. Minno and Jeffrey R. Slotten

Minno



A Long-Tailed Skipper feeding on droplets of nectar in the throat of a white-topped pitcher plant.

White-topped pitcher plant (*Sarracenia leucophylla*) is one of six species of pitcher plants that occur naturally in Florida. The trumpet-shaped leaves are held erect and range to about three feet in height. The upper portion of the leaf is white with green and red veins. The lid is crinkled along the margins. The mouth of the pitcher is very wide and bears large hairs on the lid and throat. The flowers are dark red. Unlike most of the other species, *S. leucophylla* not only produces new pitchers with the flowers in spring, but also another more abundant set in late summer. White-topped pitcher plant often grows in dense stands on seepage slopes and bogs in the western Florida Panhandle, where the showy pitchers form a spectacular display.

During a survey for rare butterflies at Eglin Air Force Base, Carl Petrick, Natural Resources Manager, showed us an area thick with white-topped pitcher plants. An intriguing characteristic of the site was a rich floral aroma, similar to honey. At first, we judged the source of the fragrance to the great number wildflowers blooming among the pitcher plants. However, further investigation proved us wrong.

Just before dusk on October 3, 1997, we observed two Monarchs (*Danaus plexippus*)

perching on the lids or lips of *S. leucophylla*. The butterflies' proboscs were extended and could be seen gently probing the underside of the lid and throat. These areas of the plant are covered with hairs as

well as glands that produce droplets of nectar attractive to insects. We smelled the mouth of the pitchers and confirmed that the honey-like fragrance was coming not from other flowers, but from the throats of white-topped pitcher plants. The nectar had a rich, sweet taste. In addition to the monarchs, we saw at least eight Mournful Sphinx moths (*Enyo lugbris*) hovering over the throats of the pitcher plants and feeding at the nectar.

The next morning we found one Common Buckeye (*Junonia coenia*), two Long-Tailed Skippers (*Urbanus proteus*), two Gulf Fritillaries (*Agraulis vanillae*), and an Ocola Skipper (*Panoquina ocola*) landing on the pitchers and feeding on the nectar. Donald Schnell (1976, *Carnivorous Plants of the United States and Canada*, John F. Blair, Publisher, Winston-Salem, North Carolina) notes that *S. leucophylla* pitchers generally contain more trapped insects than those of other species. The butterflies and moths that we observed were robbing nectar — and did not get caught. ✨