

GROWING *Astrocaryum alatum* IN PALM BEACH COUNTY

Submitted by Charlie Beck

Astrocaryum alatum native habitat ranges from southern Nicaragua through Costa Rica and Panama on the Caribbean side. It also grows on the Pacific side in southern Costa Rica. Habitat ranges from sea level to an elevation of 1,600 feet. It can be found in well-drained or poorly drained soil. Average rainfall in its tropical range varies between 120 to 180 inches a year. That's two to three times that of West Palm Beach. Although this palm is typically found growing in deep shade it can also be found in cow pastures growing with full exposure to the sun. Conservation status is threatened due to habitat loss.

Astrocaryum is a genus of palm which is known for being covered with sharp, flat, black spines. Another distinguishing feature of the genus is that leaf undersides are white or whitish.

Astrocaryum alatum typically has very spiny stems, leaves and bracts. It is a solitary, pinnate palm with strongly recurved fronds. Leaflets are unequally wide and are spread in a single plane. At some stages of maturity the leaflets are so wide that it mimics a simple undivided leaf when viewed from a distance. Fronds can measure up to 10' long. In habitat stems can grow 23' tall and 4-6" in diameter. This is a monoecious palm which produces spiny, yellow-brown fruit.

Although *A. alatum* looks similar to the more common and closely related *Astrocaryum mexicanum*, it is usually a larger scale with longer fronds which tend to arch to a greater extent. *A. alatum* has persistent leaf bases, where *A. mexicanum* tends to drop its old leafbases. *A. alatum* inflorescences are pendulous, where *A. mexicanum* have upright inflorescences.

Brenda and I attended the International Palm Society post biennial tour of Costa Rica in 1992. During that that tour we searched for palms on the Caribbean and Pacific sides, as well as inland and cloud forest habitats. We saw many amazing palms that were new to us. One of my personal favorites was *Astrocaryum alatum*. We saw it in forest habitat where you could look up and see the beautiful fronds with wide, white, pinnae undersides. We also saw them growing in deforested pastures growing in full sun. At that time I was unsure if they could be grown in Palm Beach County.

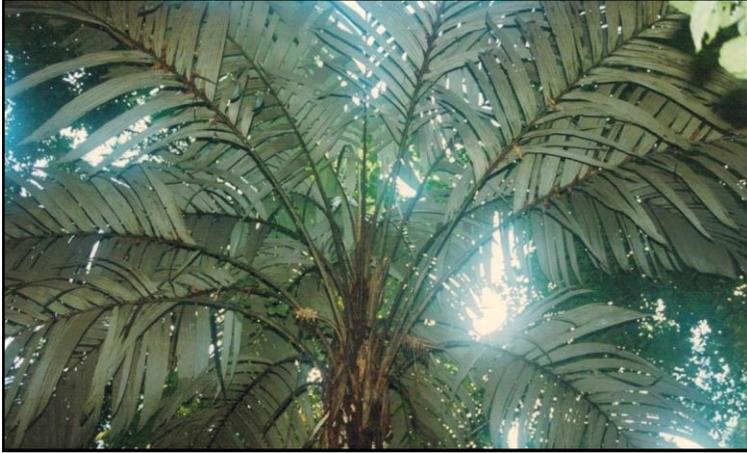
Upon returning to Florida I discovered that Fairchild Tropical Botanic Garden (FTBG) did successfully grow this palm in the lowlands area behind the amphitheater. Those palms were planted in 1987 and as they matured they looked every bit as impressive as the ones we saw in Costa Rica. We planted three *A. alatum* in our garden in 1993. That was the year our garden was established. At that point we had no canopy, so I constructed a shade cloth structure over them to protect them from the sun. Our garden soil is sugar sand, unlike the limestone at FTBG or the soils of Costa Rica. Our palms looked acceptable but never really flourished. In time they perished for some unknown reason, but I was determined to grow them, so I continued to replant. Along the way I discovered they were susceptible to boron deficiency. One of those palms replanted in 2011 looks healthy but still is not a vigorous grower. Although it is an attractive specimen, it hasn't matched the scale of the palms at FTBG or those in Costa Rica.

In 2015, I made a discovery at Holton Nursery. Dale Holton had several large potted *A. alatum*, so tall that they approached the vertical limit of his shade house. The palms had beautiful long fronds that rivaled those we saw in Costa Rica. Maybe these palms would have the right genetics to thrive in our garden. I bought two of these palms and planted them in the lowest, wettest part of our garden. These palms continued to thrive and presently have 8' long fronds. The overall height of both specimens is 10 feet. Although both were planted in the shade, we lost a canopy tree which exposed one of them to several hours of direct sunlight. That had no negative effect.

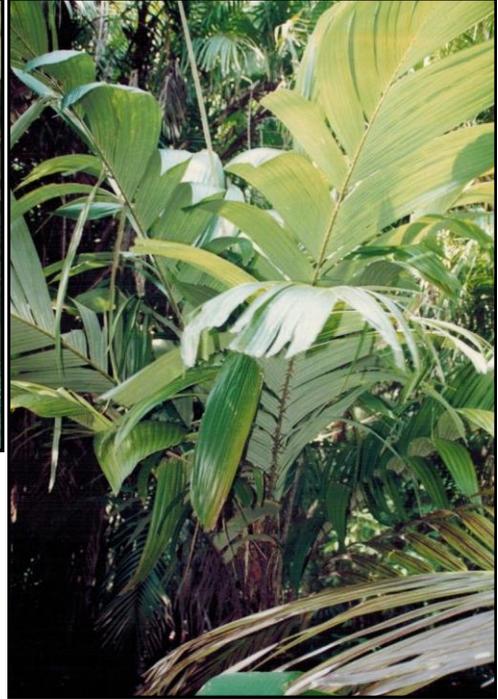
Even though the reference books and websites suggest that *A. alatum* is cold hardy to zone 10B, the palms planted at FTBG in 1987 survived the Christmas Freeze of 1989. Temperatures dipped to 27°F

on two consecutive nights in the garden. The palms in our garden showed no negative effects after the cold winter seasons of 2009 and 2010. John Kennedy has an unidentified *Astrocaryum sp.* that was grown from seed collected in Central America. John's palm, grown in Vero Beach, looks very much like *A. alatum*, so it must be more cold hardy than generally thought. John's specimen grows without regular irrigation or fertilization.

Astrocaryum alatum is definitely a "collector palm." If you like exotic looking spiny palms with wide leaflets with silver undersides, this is just the palm for you. I cannot say that any specimen you buy will thrive in a "sugar sand" garden. If you do plant in sugar sand I recommend planting it in a moist area like near a roof drain. I think this palm would excel in the marl soil of western Palm Beach County. Of course genetics also plays a role. Dale Holton still has some 20 gallon specimens available at his nursery. The *A. alatum* which are thriving in our garden were grown from the same batch of seeds.



Astrocaryum alatum in habitat, Costa Rica



Astrocaryum alatum at FTBG
(photo taken 15 years ago
current photo on pg.4)



Astrocaryum alatum- 2 years old with 8' long fronds
in the Beck Garden



Astrocaryum alatum- 6 years old in the Beck Garden



Astrocaryum alatum (most likely)
at John Kennedy's Vero Beach Garden
(Photo by John Kennedy)



Astrocaryum alatum at FTBG-30 years old



Astrocaryum alatum at FTBG- spiny stem