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Hyophorbe amaricaulis in Cuba?

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After attending the IPS Biennial Meeting in Caracas, Venezuela last year, I flew to Cuba. It had been a wish of mine for many years to visit this Caribbean Island nation, partly because I had always been interested in this country for its very rich history. This, after all, had been the base of the Spanish conquest of the Americas, ever since Columbus landed there in 1492.

The main reason for my visit, however, was the rich palm flora, in general, and in particular the genus *Copernicia*. Explorations of such a nature are always best started off in a country's botanical garden. Here, as in most gardens around the world, I found the botanists in charge to be most helpful, informed, and delighted to talk about palms.

I had long walks in the National Botanical Garden of Havana. It became obvious to me that in the given time I had, it would not be possible to see as much as I had hoped. The largest of all Caribbean Islands, Cuba is more than 1400 km from one end to the other by road, and presumably, the palms I wanted to see were not growing along the highway. In the end, I got as far as Sancti Spiritus, one of the very old Cuban cities some 490 km east of Havana from where I had to turn around and get back to the capital and home to my country.

But this is not an account of the beautiful native palms I saw, nor about the wonderful Cuban people I met along this journey. Rather, it is about the discovery of perhaps the only viable colony of what I believe to be *Hyophorbe amaricaulis*.

Some 250 km east of Havana is the city of Cienfuego, a center of industry with a population of about 125,000. From there Cuba's immense sugar production is exported. Some distance from the city is the Botanical Garden of Cienfuego. It is spread over 90 ha, lies 50 m above sea level and has an annual rainfall of 1400 mm. The garden was founded by Edwin F. Atkins, who was one of the first North Americans to buy and further develop a sugar plantation in 1833. By 1901 part

of the estate was dedicated to research and study of plants, initially mainly sugar cane varieties. In 1919 the garden became part of the University of Harvard and in 1962 it came under the administration of the Cuban Academy of Sciences. There are some 2000 different types of plants belonging to 670 genera. About 70% of all the plants are exotic. About 280 types of palms can be found here and virtually all Cuban indigenous palms can be studied in the garden. This in general terms is a very fine botanical garden and for students of palms it is excellent.

Very early one morning in June I arrived at the entrance to the garden. After walking for several hours in the garden, I came across a group of palms that looked unfamiliar to me. The label said: Hyophorbe lagenicaulis! There was one thing I was very sure of, and that was that this label was wrong! During my travels, I had seen many times specimens of old (60-90 years old) H. lagenicaulis, including specimens in the Botanical Garden of Pampelmousse in Mauritius and the Botanical Garden of Durban in South Africa. A specimen of about 70 years of age would have a trunk of about 2-3 m height, tapering to a small crownshaft with reddish, rather short petioles and leaflets. Also the trunk seems to invite a host of small animals, from rats to woodpeckers, giving the palm almost always a very gnarled and rather grotesque appearance.

The palms in this group, however, had a different look. Superficially, I thought there was a certain amount of "family traits," like the tapered trunk, small number of leaves, and "fleshy" petioles. But what set it apart from *H. lagenicaulis* are a taller and less severely tapered trunk and a green color in crownshaft, petioles, and leaves. Leaving this group of palms I concluded that perhaps factors such as age, climactic conditions, and soil type may have changed the appearance of the palms to such an extent that they did not resemble a typical 70 year old *H. lagenicaulis*.

That notion, however, disappeared very quickly

some distance away when we came across another group of palms, which looked exactly what one would expect old *H. lagenicaulis* to look like. The label on that group read: *Hyophorbe amaricaulis*.

I had been aware of the lonely plight of what is believed to be the last surviving individual of *H. amaricaulis* in the Curepipe Botanical Garden in Mauritius. More than 12 years ago I had been there to look at and photograph this very palm. I was also aware, that a considerable amount of effort, time, and money had been extended in trying to ensure the survival of this species. This individual in the Curepipe Garden apparently produces seeds with embryos, but it seems that the fruit does not mature properly. Efforts by various institutions with tissue propagation work have so far not been successful.

The hot midday sun suddenly seemed even hotter! I realized that we might have a case of switched names on some seeds that were shipped from somewhere for the collection of this garden by some enthusiastic plant-lover. Back we went for another look. It was definitely neither *H. lagenicaulis* nor *H. verschaffeltii*. So what about *H. vaughanii*, which is also very rare and on the brink of extinction? Again, I had seen this palm 12 years ago in Mauritius and also in the Durban Botanical Garden. I remember thinking at the time, that this palm looked like a stretched version of *H. lagenicaulis*, with reddish crownshaft and leaves, but with a much taller trunk.

What made me even happier was to be told that this group frequently produces viable seeds and that in fact a batch of seedling plants had recently been planted out in the garden. Upon inspecting them, again I could conclude that what I saw in those 1-m plants was nothing like the three *Hyophorbe* species I had grown in my nursery over the years. Both my guide and I were very eager to have a look at the meticulous planting records

kept at the garden library. And there it was: Seeds of both *H. lagenicaulis* and *H. amaricaulis* were sent from Mauritius in I think the year 1923!. Somewhere between the collection of the seeds and the planting of the small palms in the garden the names became mixed up and as a result this viable group of *H. amaricaulis* had grown happily under an alias.

Sometime later I came across an article by P. S. Wyse Jackson, O.C.B. Cronk, and J. A. N. Parnell published in Botanic Gardens Conservation News, Vol. 1, No. 6, July 1990, entitled "Notes on a critically endangered palm from Mauritius, Hyophorbe amaricaulis Mart." In this paper the authors describe the history of this palm and the efforts that have been made to stop this supposedly last specimen of this palm in the Curepipe Garden from dying and with it this species altogether. The paper also mentions that in a survey of botanical gardens around the world the name of this palm appeared in gardens in India, Cuba, USA, Ghana, Canada, Ireland, Australia, and the UK. When the survey was completed in 1990, all records turned out to be based on misidentification because of earlier reference works that had the two species, H. lagenicaulis and H. amaricaulis, confused with each other.

Conclusion

It seems to me that when it came to checking the existence of *H. amaricaulis* as recorded in the Garden Archives, it indeed turned out to be *H. lagenicaulis*, since the two names somewhere along their early existence had been mixed up. It remains for botanists to go to Cienfuego in Cuba and identify this palm. I hope that one day someone will write a sequel to this story and announce that this palm has definitely been saved for posterity.

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