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Hunting for Mr. Straw Man

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The elusive straw man (Copernicia ekmanii Burret, Fr. homme paille, Cr. jamm de pay) is a hardy palm, growing on the crusty, dog-tooth limestone that juts out of the Caribbean Sea along the northern coast of Haiti. The tortuous coastline with the constant blowing of the northeasterly trade winds is a place that attracts buccaneers and explorers. The palm is poorly known to the world outside its native range; two expeditions were organized by Fairchild Tropical Garden to find out more about the current status of this magnificent survivor of a beautiful, but harsh, landscape (Fig. 1).

The first trip began as the three of us set out from Port-au-Prince on Monday afternoon, May 6, 1996. We had gone but 35 minutes from the capital before the swollen stem of an old *Pseudophoenix vinifera* caught our eye. Tucked away among thorn scrub of an abandoned sisal plantation, it stood solitary, a remnant of the original dry forest that had been cleared since colonial times (Fig. 2). Up and away from predators, an Hispaniolan woodpecker had pierced the stem for a nest site. Several other wine palms (Fr. *palmiste-à-vin*, Cr. *palmistaven*) could be seen, but scattered widely.

The road north took us through the rich Artibonite Plain, where the land is irrigated for rice production, and on to the desert town of Gonaïves. After a short stop, we were off for the "far west." The road north takes one along one of the most arid spots in Haiti, through a Consolea and Lemaireocereus cactus landscape. Oasis and fresh water courses typically have stands of Copernicia berteroana that are used as a source of thatch. By nightfall, we had left the coast and climbed to the low mountains in the center of the NW peninsula. As soon as one reaches about 300 m, the massive trunks of Sabal domingensis dominate the landscape, standing about as columns to the sky (Fig. 3). They are well-adapted to survive the annual fires set to clear the brush and prepare the fields. It is common to see the palms with only a spear and two leaves left, the other leaves cut for thatch. The thatch is dried and bundled as a cash crop, left stacked up by the side of the road for domestic use or sale to truck transporters out of the region.

We spent the night at a CARE guest house. Scanning Burret's description of C. ekmanii, we noticed that he collected only a short distance from where we slept. Early the next morning, we set off for an adventure. It was market day and everyone seemed to be walking in the same direction—donkeys loaded with all sorts of goods to be sold and bartered for weekly provisions. Along the route nobody seemed to know of the Straw Man. So then we began asking for any of the elderly who might know and this led us to a man sitting at an intersection in town. His toothless grin lit up when we stopped our 4-wheel drive vehicle for a chat. He hardly let us finish our description, when he interrupted with a gesture toward the ocean and confirmation that a large population existed and was well known by the locals who harvest for thatch. Later, we learned that this man was a local government official, traveling with a rubber stamp of authority, which he used on a slip of paper with his name-Monsieur Dugait Dégat. Hopping into the vehicle, he proceeded to lead us to a fishing village along the coast.

The weekly visit of the fish truck from Port-au-Prince was at hand when we parked near the village. Spiny rock lobster was selling for 90 gourdes (=\$6.00) per pound. Ice was being hauled away from the truck by the fishermen for the next week's catch. We asked a local fisherman what it would cost to hire a boat and reach the site where the *C. ekmanii* were found. After some haggling, we got a round-trip in a rowboat worth 3.3 pounds of lobster and this included three Haitian friends accompanying us through all sorts of entangled shrubbery, cactus, and sharp rocks in bare feet and thongs.

Upon reaching across the bay, we proceeded to

climb up to a ridge that separated the mangroves from the open ocean. This ridge turned out to be a plateau on a peninsula, several kilometers wide. We spotted the palms off in the distance, across a savanna-type plant community comprising cacti, bunch grass, and thorn scrub. Walking to them was an exercise of patience; every step had to be carefully chosen to avoid injury. Here and there, quail doves were flushed from their ground-dwelling nests. One of the guides spotted a buff-colored bird egg, picked it up, and put it in his pocket.

The first individuals of Copernicia ekmanii appeared stunted, averaging a height of 1–2 m. These had been harvested for their thatch, undoubtedly impairing productivity. No seedlings were observed, causing one to wonder how this population regenerates under such harsh conditions. Remnants of harvested stumps of the thorny shrubs and scattered earthen kilns were witness to charcoal-making activities. Goats bleated here and there—open grazing was the norm. However, Mr. Straw Man seemed to tolerate all these activities and was holding its own in such rugged conditions.

We left the fishing cove and headed along the northern coast. Along the way, we took a break and climbed down an escarpment toward the sea. Led by a lady who knew of the palm, we came to a lone palm, about 3 m tall, hugging a rocky ledge near a ravine. The lady spoke of an extensive population of Copernicia farther along the coast. With this information, we continued on our journey. On both sides of the dirt trail, farmers were in their fields, harvesting a crop of peanuts in the shallow pocket soils of the limestone rock. A farmer returning from his field and carrying the stump of an agave plant for fuelwood kindly stopped to chat a while to answer our queries. He told us we could find a palm in town that might be in fruit. With hopeful anticipation, we hurried along and arrived in town just before dusk. When we finally located the palm, an entourage of folk had gathered around, entertained by these strangers who came looking for palms, not people. The palm we located, reaching about 4 m, was much larger than any we had sighted that day. It was probably cultivated and receiving the benefit of a fertile site and ample water supply. There were several fresh fruiting stalks that were in various stages of flowering. The shoreline was but 10 m from the palm. Talking with the fishermen, we confirmed the presence of the coastal population spoken of earlier and learned of another population nearby. When we asked where we might find the largest individuals and the possibility of harvesting seed, the new location seemed to be our best choice. We arranged for a sailboat the next day for our final excursion.

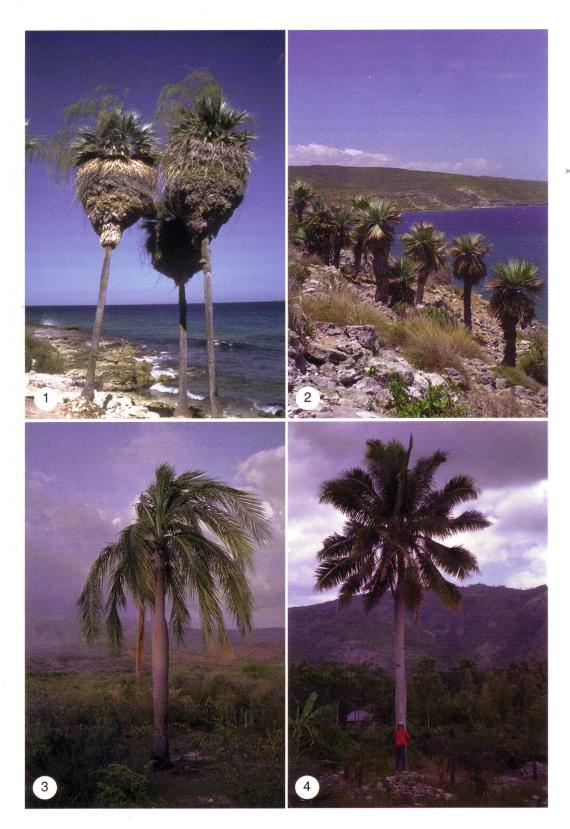
We boarded Grace à l'Eternel, a 5-m fishing boat with a two-man crew. With a brisk northeasterly wind, we reached the population within 30 minutes of sailing. From a distance, we could easily spot the stand of C. ekmanii towering over the beach cove. Beneath the palm grove were the thatched A-frame shelters of the fishing community (Fig. 4). These palms were the tallest and most beautiful specimens we had yet seen. The accumulation of old fronds were hanging in petticoat fashion along the trunks. Ashore, we were greeted by the matriarch of the village who led us along the coast to study the extent of the population. The sandy beach extended southward. Outside the confines of the small village, the palms were shorter and regularly harvested for thatch by people coming from the arid hinterland far away. Stem density was high and seedlings were common. Several seedlings were carefully dug up and bundled in a water-soaked shirt for distribution to ex situ sites at Fairchild and the Katherine Dunham Botanical Garden near Port-au-Prince. Fishermen were spear fishing and mending their nets. Children were telling us how they like to eat the sweet pulp of the fruit and play marbles with the spherical seed. Our captain and first mate quickly ate a meal of bean gruel and mentioned that we'd better get sailing for our return trip because the winds were picking up. It was about 11 AM and our destination was in the exact direction the wind was coming from.

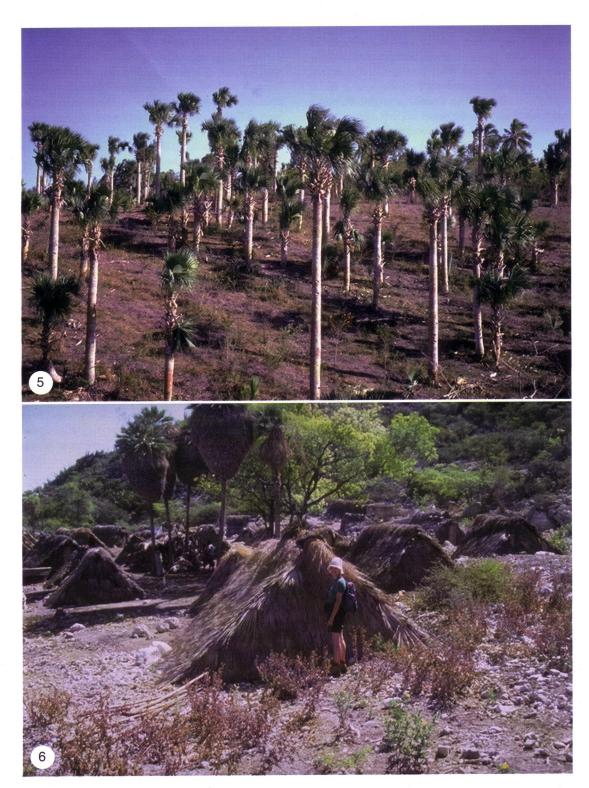
The crew rowed for 20 minutes to a rocky cape, then set sail toward the northwest. The captain maneuvered well among the whitecaps, though

^{1.} Copernicia ekmanii along the shores of the Caribbean Sea in northwestern Haiti. 2. Copernicia ekmanii is restricted to harsh conditions along the coast.

^{3.} A Pseudophoenix vinifera that survived the conversion of its dry forest habitat to a sisal plantation.

^{4.} Attalea crassipatha of Haiti, the only member of the Attaleinae found in the Greater and Lesser Antilles.





5. Sabal domingensis, the dominant species in the agricultural landscape of northwestern Haiti.
6. C. ekmanii provides shelter in this fishing village.

bailing became a constant task for the passengers. The gusty winds made sailing difficult, though the captain kept reminding us that this was nothing compared to sailing the Windward Passage to Cuba and that we were safely in the hold of *Grace* à l'Eternel. During the fourth tack, the 24-ounce drinking mug that we were bailing with slipped out of hand and into the sea. The captain, aghast as seeing such a prize possession leave the boat, decided to change sailing direction and return to fetch the mug. Upon doing so, our weight shifted dramatically and several waves breached the sides of the boat. Immediately, we were on the verge of capsizing, with thoughts that it was us, and not the C. ekmanii, that were in fact endangered. A frantic 20 minutes ensued in which nothing but getting water out of the boat was on our minds. The captain praised his boat's capacity to hold water. He suddenly dived out of the boat and swam to retrieve the floating mug. Back on board, he quickly cut a gallon jug in half and threw it to us for bailing. Eventually, the near calamity was under control and we resumed our course toward the port. The captain consoled us that we would be ashore within 30 minutes. He was accurate to within minutes. Safely on land, we were greeted by other fishermen who had witnessed our plight and assured us that they were prepared for a res-

The second trip took place in July when twothirds of the straw man team got together again to look for *Copernicia* seeds. While Joel addressed pressing issues at home, Chuck returned to Portau-Prince to meet Suzanne and begin the second part of our adventure. Suzanne had already made arrangements with CARE for accommodations in this remote section of the country. Familiar with the route this time, and equipped with life jackets, we set out immediately for the *Copernicia* populations.

The journey went as expected for the first few hours. A flat tire was changed and repaired at first opportunity. A second occurred shortly thereafter, and then a third. We ended our first day's journey with tire repairs. The next morning, we arose early, with two new inner tubes, and set out for our destination. Crossing a particularly hot and arid region on a rocky road, we experienced a rapid succession of flat tires; three in all. Here, the villages were so scattered and so small that we could not find even the shade-tree mechanics of small towns. We drove on, between villages, past *Copernicia berteroana* (Fig. 5), through the cactus

scrub, on two flat tires with the third mounted on the back of our four-wheel drive vehicle. Two tires were almost shredded by the time we finally reached a village. Fortunately, a CARE truck stopped and offered assistance. Hearing that we were all bound for the same facility, these gentlemen delivered us to our planned accommodation for the night.

The next morning, CARE provided a truck and driver to take us to the palm populations. Wearing our life jackets, we had a pleasant, uneventful sail to the palms and back. We spoke to the people of the village about the importance of these palms and heard about the problems they face in protecting them. Everybody from small children to elderly women and men helped us collect the seeds. We then discussed with a village committee how much money was appropriate for the seeds we were taking. Since negotiation is the rule, reaching a mutually agreeable payment took some time. Visiting two nearby sites, we collected about 100 slightly immature seeds and quickly counted the palms. Each of these populations exceeded 500 individuals, easily making them the largest populations we had seen.

The following day, a CARE driver returned us to our vehicle and we watched as the new tires were mounted. Without the surprisingly generous assistance of CARE, our little adventure would have been a real trial. Our rented vehicle, however, had a little more mischief to offer.

Trying to maintain our tight schedule, we set out for Port-au-Prince that afternoon. We were already late because we had to purchase new tires, have them mounted, and return CARE's spares. We had three more flats on the return-discovering two at a restaurant when we stopped for dinner and one at a gas station. A grand total of nine flat tires in three days may not be an all-time record for Haiti, but it was a personal best for each of us. Then, two hours from Port-au-Prince, driving in the dark, our headlights flickered and went out. Unwilling to face Haiti's late night trucks, reputed to be manned by very dangerous drivers, and rough roads in total darkness, we ended another day. We drove a safe distance off the road and slept in the Spartan comfort of the utility vehicle's reclining bucket seats.

We awoke at first light and returned to Port-au-Prince just as the rental car company was opening. They kindly reimbursed us for our tire expenses and, to our surprise, rented us another vehicle for the continuation of our week's travels. The final days proved relatively uneventful as we viewed numerous palm populations of six palm species, including *Pseudophoenix lediniana*, *Zombia antillarum*, and *Attalea crassispatha* (Fig. 6). We were also able to collect seeds of the *Attalea*. Most of the seeds were collected for conservation efforts in Haiti, with a few returning to Fairchild Tropical Garden with Chuck.

The hunt for Mr. Straw Man was an experience hard to forget. We saw several significant populations, each containing hundreds of mature palms. The species appears to be better off than other endemic palms in Haiti, primarily because the harsh site conditions are too risky for conversion to annual cropping activities. Rainfall is erratic and the soils, if any, are shallow. This does not mean that the native habitats are not endangered. Free grazing, charcoal-making activities, fires and harvesting for thatch are a menace to the natural conditions favoring regeneration and a sustainable population. However, conservation of the species can be managed. Suzanne and friends are

establishing the Haitian Botanical Foundation, which will continue the palm work, as well as other environmental conservation. Suzanne and Joel are founding members and Chuck has been asked to serve on its board of directors. The three of us have taken different routes to Haiti, joining in our search for the Straw Man. We cannot know what lies ahead of us in Haiti. We have great hope that by continuing along this path, however, we will bring something of value to the people of this impoverished country.

Acknowledgments

The authors would like to extend their sincere appreciation to the CARE staff in Haiti for providing logistical support during the expedition. Many Haitians along the way graciously gave of their time in assisting the team to locate and reach the isolated *C. ekmanii* populations. Travel costs were funded in part by Fairchild Tropical Gardens.

Left
Sabal pumos (Kunth) Burret

This species was first collected from Michoacan, Mexico in 1803 by the great botanical explorers Alexander von Humboldt and Aimé Bonpland. It was first placed in the genus *Corypha* by Kunth and later transferred to *Sabal* by Burret. For over 150 years, *Sabal pumos* was known only from that one, original collection until J. Rzedowski visited the type locality in the early 1960s and found thriving populations of this palm. "Pumos" is the name given locally to the fruits, which are edible and are to this day collected and sold in local markets. *Sabal pumos* is distinguished from its relatives by several features including its large fruits (to 2.8 cm in diameter) and its elevational range (600–1300 m, the highest in the genus). It is locally abundant in the type locality of Michoacan, and scattered populations are found in adjacent states.—Scott Zona.

Right Calamus hollrungii Becc.

Calamus hollrungii is the most common and widespread species of rattan in New Guinea (see pp. 148–157). This photograph, taken near the shores of Lake Kutubu in the Southern Highlands of Papua New Guinea, shows a juvenile individual establishing itself in the undergrowth; its appearance belies the brutish nature of the adult form. Fully grown specimens of C. hollrungii are extremely robust and can climb to great heights in the forest canopy with the help of leaf whips (cirri), which are armed with hundreds of recurved, grapnel-like spines. It is a confusingly variable species. For example, the sheaths of some forms are completely without spines, while those of other forms possess large numbers of stout, black spines. Further study is required to discover whether more than one taxon is concealed within this hitherto tolerated breadth of variation. To date, the rattan industry in Papua New Guinea is very underdeveloped. However, the country is fortunate that such a high-quality cane-producing Calamus species is also its commonest.—William J. Baker