

A photograph of a man with a beard and a cap climbing a tall, slender tree trunk in a lush tropical forest. He is wearing a blue t-shirt and blue pants. The forest is filled with various types of trees, including palm trees, and the ground is covered with fallen palm fronds. The overall scene is bright and green, suggesting a healthy, well-maintained botanical garden or research station.

Montgomery Botanical NEWS

*Advancing Research, Conservation, and Education
through Scientific Plant Collections*

Fall/Winter 2012

Volume 20, Number 2

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Palm Pursuits: Dominica and French Guiana

SEARCHING HIGH AND LOW

Dominica is a small mountainous island created by nine coalesced volcanoes. There has not been a major eruption since Columbus visited the island 5 centuries ago. Thus, the island has some of the best preserved tropical forests, some of the most massive trees in the eastern Caribbean and some of the tallest palms (see front cover).

There are nine native palm species on Dominica. Two are especially interesting because they have alternate forms quite different from each other. The first, *Prestoea acuminata* var. *montana* is very attractive, producing a strikingly beautiful red inflorescence with short branches. The alternate form has a less attractive cream colored inflorescence with longer branches.

At first I was positive that these were two different species, but the trees are nearly identical otherwise. Arlington James first thought that they were perhaps ecological variants because he



The rainforest form of *Prestoea acuminata* var. *montana* has beautiful red inflorescences

SPINY AND SPINELESS PALMS

French Guiana is about the size of Maine with 73 species of palm growing in vast, often inaccessible forests. Last April I spent three weeks collecting at the height of the rainy season, which is also the height of the fruiting season. I explored the more accessible northern portion of the country and one remote locality in central French Guiana near the village of Saül, accessible only through its unpaved airstrip.

Many of the Guiana palms are spiny (*Acrocomia*, *Astrocaryum*, and *Bactris*). My objective was to collect any fruiting palms, including many species that we do not have at MBC and research some of the less spiny palms (*Attalea*, *Syagrus*).

In 1999, Glassman described four new species of acaulescent *Attalea* based mostly on measurements of only a few specimens that had been sent to him by a palm specialist in French Guiana. Recently another palm taxonomist lumped all four into just one species, *Attalea guianensis*. After my visit, I now suspect there are more than just one species in this *Attalea* complex. Pierre-Olivier Albano (of the local palm society) and I observed that one group only grows on flood plains and depressions, but never on the adjacent slopes. There is another group of the same complex that grows only on the slopes, but never invades these low wet depressions.

Half of the mystery was solved after I revisited the locality for *Attalea degranvillei*, one of Glassman's species, and discovered that it was the species that preferred wet depressions. I am still unsure how it differs from *A. guianensis*, because *A. guianensis* is not well known. Thus, further fieldwork is still needed!



Larry beside a small stream with *Attalea degranvillei*, a swamp loving palm.

observed the red ones growing predominately along the ridge tops, but then, together, we found the two forms growing less than 4 feet apart. So the question still remains: Is this one species or two?

The two *Aiphanes minima* forms may be ecological variants. The lowland form grows near sea level, has a thick trunk, a large inflorescence with many branches and many fruit and a short, thick peduncle. The rainforest form that grows on or near the high altitude ridge tops has a thinner trunk, a small inflorescence with few branches and few fruits, and a long, slender peduncle. After measuring many specimens collected throughout the islands, Karen Laubengayer could find no statistical support to separate out two or more species, but the doubts still remain: One species or two?

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