Palm Fieldwork in Trinidad: Termites and Mud Glaciers

In October 2010, Montgomery Botanical Center worked with Fairchild Tropical Botanic Garden on fieldwork in Trinidad. Patrick Griffith and I last collected in Trinidad in April 2007, so by going in October, I was able to collect different species, which fruited during a different growing season (*Attalea maripa, Astrocaryum aculeatum, Bactris campestris, Bactris simplicifrons* and *Desmoncus orthacanthos*).

We collected a couple of populations of *Attalea maripa*, but since their fruiting season had just passed, good seed for these forest giants was not easy to find. With diligence, we collected viable seed that passed the float test (good seed sinks, bad seed floats).

While collecting *Astrocaryum aculeatum*, I learned that arboreal termites can be vicious. *Astrocaryum* trunks are so spiny they cannot be climbed, but I found one that had recently been knocked over by a fallen tree. While balancing on this fallen tree trunk, sawing off a palm inflorescence, the vibrations disturbed a termite nest and troops of pale soldier termites flooded down the trunk with their horn-armed heads in attack mode. It was difficult removing the inflorescence, while delicately balancing on the trunk, avoiding the long *Astrocaryum* spines and warding off termites bent on "goring" me with their unicorn heads. It did motivate me to work more efficiently, though.

Bactris campestris stems are adorned with spines and too skinny to climb, but we collected several from the marsh forests using a pole saw that I had fabricated by tying my pruning saw to a long woody stem.

Only a few mature red fruit of the relatively spineless, ornamentally attractive *Bactris simplicifrons* were gathered at a small roadside park. Their undivided leaves and unbranched, downward-bent infructescences adorned with red fruit helped to distinguish them.

Larry Noblick, Keisha Manaure, Winston Johnson, Brad Bharath, and Juan Rivera

Bactris simplicifrons fruit

Collecting a spiny, vine-like palm like *Desmoncus orthacanthos* is challenging. When there are no trees, it worms itself into an impenetrable thicket. Among trees, it climbs to the top of the canopy. Finding mature "accessible" fruits is a blessed discovery.

While on the mission to collect palms in Trinidad, I also climbed up the face of a mud glacier, in order to reach a specimen of *Sabal mauritiiformis*. Pressure between the Caribbean and South American plates have produced east to west fractures or faults in Trinidad. Along the southern fractures are some unusual geological phenomena, like a pitch lake, mud volcanoes, and a mud glacier. The mud glacier periodically exudes massive amounts of mud squeezed from a large area at the top of a steep slope just west of Palo Seco Beach and the mud slowly and deliberately flows down to the ocean surf, bull-dozing everything in its path like an avalanche in slow motion.

Melissa Abdo, Juan Rivera and I collected and cleaned over 6,000 seed of 15 different palm species, but none of this would have been possible without the full collaboration of our Trinidadian colleagues at the University of the West Indies, Yasmin Baksh-Comeau, Winston Johnson, Keisha Manaure and Brad Bharath.

Anglaise Point mud glacier flowing towards the southern coast

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