

A hyper-interesting
hyperdominant

Mauritia flexuosa

By Tim Perez



The Amazon Rainforest is often described as a vast sea of trees (a sea that is unfortunately quickly evaporating). The metaphor is apt because many first-time visitors to the diverse Amazon can feel adrift in the forest's endless green expanses. Indeed, my first hike through the Amazon Rainforest was overwhelming; unfamiliar species were everywhere, with no discernable pattern. As a new student working at Fairchild Tropical Botanic Garden and Florida International University, I am still learning to navigate the waters of tropical plant diversity. Fortunately, I have access to Fairchild's diverse living collections, where I find safe harbor from taxing taxonomy.



Preparation of the South American palm weevil, *Rhynchophorus palmarum*, for consumptions.
Photo by Geoff Gallice

One familiar species within the collection is *Mauritia flexuosa*. Also known as the moriche palm, this species can form expansive, nearly pure stands in permanently-inundated sites, and patches of these stands occur throughout much of the Amazon basin. In fact, recent work by tropical ecologists (including my advisor, Fairchild/FIU plant conservation biologist Dr. Kenneth Feeley) indicates that a very large proportion of the trees within the Amazon rainforest are composed of a relatively small number of “hyperdominant” species—one of which is *Mauritia flexuosa*. This species is so common that it has special names that vary from country to country and culture to culture.

It is thought that Pre-Colombian cultures may have intentionally or unintentionally aided dispersal of this palm as people ate its fruit and discarded its seeds. Today, the moriche palm remains an important food and economic resource for many South American communities. When ripe, the egg-sized fruits are harvested and their shiny maroon, fish-like scales are peeled away to reveal rich orange flesh that is commonly used for drinks and desserts. The thick, sweet and slightly-fermented juice from these fruits can easily be purchased from small street-side vendors when in season. Oils from the fruits are also gaining popularity for use in many different cosmetic products.

Humans aren't the only species that uses *M. flexuosa*. The South American palm weevil, *Rhynchophorus palmarum*, feeds on the moriche palm, and in the marketplace, humans feed on both! Juvenile weevil larvae are harvested from rotting palm trunks and taken to market, then grilled and consumed. The most flattering descriptions of the larvae's flavor invoke bacon, but my palate detects woody flavors with undertones of soil. They are an important source of proteins and nutrients, especially calcium, for many indigenous cultures of the Amazon.

Plant lovers who may not be dazzled by bright plumage or large animals will surely take pleasure in the aesthetic beauty of the moriche palm swamps. The slender, light-colored trunks can ascend upwards of 100 feet (30 meters) and are often bedecked with wild *Vanilla* orchids, which are rare outside the swamps. The palms' disheveled, pendulous inflorescences—with hundreds of fruits—contrast the linear patterns of their trunks. Crowning the palm are its many-pinnuled, costapinnate leaves. Individually or collectively, any plant enthusiast can appreciate *M. flexuosa*.



In the foreground, an anaconda at the edge of opaque and placid waters of a *Mauritia* palm swamp.
Photo by Patrick Campbell

While these beetle larvae may not wind up on your plate, they may be soon damaging your backyard. The USDA has labeled these large beetles as potential palm-pests and vectors for plant diseases.

Another species that consumes moriche fruits is the Brazilian tapir, *Tapirus terrestris*. *Aguaje*, as moriche fruits are called in Peru, constitute a major part of tapirs' diets and can disperse their seeds over long distances to new swamps. And, the still, dark waters of these moriche palm swamps are excellent places to encounter the anaconda, *Eunectes murinus*. Brightly-plumed parrots roost in moriche palms and large animals also live among their trunks.

Moriche palms are a favorite of mine not simply for aesthetic allure or because their fruits and leaves are easy taxonomic identifiers. Rather, *M. flexuosa* is special because it is a reminder of the fascinating and complex ecology of the Amazon. It is one of thousands of species, each with unique ecological associations, and Fairchild Tropical Botanical Garden contains excerpts of these ecological stories from all over the world. For me, *M. flexuosa* is one such story, and it makes Amazonian diversity a little less intimidating and a lot more interesting. 

Timothy Perez is a Ph.D. with Fairchild Tropical Botanical Garden and Florida International University, and is a member of Dr. Kenneth J. Feeley's tropical ecology and conservation lab. His research interests include understanding tropical diversity, adaptations that promote large distributions and the effects of climate change on Amazonian plant communities.