



THE INTERNATIONAL PALM SOCIETY

Aug. 2020

NEWSLETTER

A Virtual Tour of Mauritius by Andy Hurwitz

This article continues the “virtual hikes” of our previous Newsletters, representing the IPS Biennial that would have been had tourism been possible earlier this year. Mauritius was scheduled as an addition tour after the Biennial.

Our post-Biennial trip takes us about 150 km east of Reunion Island, along a submerged ridge known as the Seychelles-Mauritius plateau, to the island nation of Mauritius. Mauritius is a volcanic island in Indian ocean. It is about 8 million years old, making it the most ancient island in the Mascarene archipelago. Its volcanic peak, Piton de la Rivière (3069 m), is long extinct. Cyclones, heavy winds, and torrential rains have resulted in millions of years of soil erosion. Consequently, Mauritius is considerably less mountainous than Reunion, hence less microclimate variability and biodiversity. Tangentially, it is the same persistent strong winds which are implicated in the apparent lack of large winged insects seen on the island. Trade winds are south-easterly, and rainfall on the windward side of the island, up to 4000 mm per annum, is satisfactory for maintaining a moist tropical forest.

Mauritius' topography is characterized by coastal plains and a central plateau. Although known for diverse speciation of birds and reptiles, floral endemism is plentiful. Interestingly there are no native terrestrial mammals on any of these islands. The only endemic mammal is a bat, the Mascarene flying fox, which is severely endangered.

Mauritius has been particularly devastated by the loss of native flora and fauna. This has been exacerbated by the introduction of non-native plants such as sugarcane, tea, and conifers along with feral animals, and of course agriculture. Furthermore, Mauritius has one of the highest population densities in the world, at 634 persons per square kilometer. Accordingly, much of the original forest habitat has been devastated. Sadly, less than 5% of the natural vegetation remains. I was fortunate to establish a dialogue with Vikash Tatayah of Mauritian Wildlife Foundation (MWF). The MWF has been instrumental in habitat preservation and has achieved admirable success, on both Mauritius and Round Island.

Mauritius is home to nine palm taxa, two of which, *Acanthophoenix rubra* and *Dictyosperma album* var. *album* are also found on Reunion Island.

The Black River Gorges National Park is a hiker's paradise in a marvelous primary forest. Located in the southwest portion of Mauritius, the park represents the majority of preserved rainforest on the island. This is a national park, operated jointly by the Mauritian Wildlife Foundation (MWF) and the Mauritius National Park Service. At over 67 km², the park is sited in the hilly interior portion of the island and includes a humid upland forest and a dryer lowland forest.

A Virtual Tour of Mauritius

This is a particularly rich habitat for the endemic bird species of Mauritius. For our interests, Black River Gorges is where we will find *Acanthophoenix*, *Dictyosperma album* var. *album*, and *Tectiphilia ferox*.

At Black River Gorges there are a few wild specimens of *Acanthophoenix rubra*. Additionally, there are other *Acanthophoenix* palms that may have been introduced about four decades ago. These approximately 20 planted trees morphologically resemble *A. rubra*; however, the appearance of the infructescence is markedly different (Ludwig).

Dictyosperma album var. *album* is a solitary, monoecious, pinnate palm. The emergent leaf spear is almost vertical. The trunk is ringed, and the crownshaft is prominent. This is the largest of the three varieties. We will also see var. *conjugatum* on Round Island and var. *au-reum* on Rodrigues Island (next month).

Tectiphiala ferox was first encountered in 1965 and described by Harold Moore in 1969.



Acanthophoenix, Black River Gorges National Park. (Photo Vikash Tatayah, MWF)



This is a solitary, monoecious, pinnate palm. The crownshaft is densely armed with long spines. It grows in a wet thicket, often swampy, ecosystem which receives rainfall of over 4000 mm annually. There are fewer than 20 individual plants in the wild, so its IUCN status is Critically Endangered. Discouragingly, the population seems to be decreasing.

Leaving Black River, we travel to the southeast corner of the island, to the Florin Conservation Management Area (CMA), established in 1996. The palms at this 2.5-ha preserve (650 m elevation) include *Acanthophoenix*, *Dictyosperma album* var. *album*, and *Tectophiala ferox*. *Hyophorbe vaughanii* is also found here.

Dictyosperma album var. *album* (Florin), Black River Gorges National Park. Photo by Vikash Tatayah, MWF. Note swollen crownshaft.

A Virtual Tour of Mauritius

A very unusual group of four individual *Acanthophoenix* in the Florin CMA is noteworthy. These *Acanthophoenix* are more similar in appearance to *A. crinita*. However these trees bear distinct differences such as stiff black spines, even in adulthood, and an inflorescence structure that is reminiscent of *Tectiphiala*. The question as to whether these four unusual *Acanthophoenix* should be classified as a distinct species, despite the fact that their population is exceedingly small, is yet to be fully resolved.

Now off to Round Island!

About 20 km beyond the northern tip of Mauritius is Round Island, with an area of only 1.69 km² and a maximum elevation of 280 m. Its small size and relatively flat terrain bely its remarkable, if not legendary, palm species diversity. Sadly, much of the native vegetation was destroyed by feral goats and rabbits, and then the soil was swept away by torrential rains. This uninhabited island has thankfully served as a nature reserve since 1957. Fully protected, Round Island is jointly managed by the National Parks and Conservation Service with technical support from the Mauritius Wildlife Foundation (a non-governmental agency).

Three palms are endemic to Round Island: *Dictyosperma album* var. *conjugatum*, *Latania loddigessi*, and *Hyophorbe lagenicaulis*.

Dictyosperma album var. *conjugatum* (Palmiste de l'Île Ronde): This variety of the "Hurricane Palm" is generally accepted as solely endemic to Round Island (which is indeed a very windy locale). However further genetic analysis is being conducted to "confirm if it is indeed a valid taxon" (Tatayah). *Dictyosperma album* var. *conjugatum* is the most petite of the three varieties of *Dictyosperma*. Maximum height of no more than 12 m. It is notable for a pale waxy white (hence the epithet "album") crown-shaft, white leaf scars, and a dense head of arching pinnate leaves. The variety *conjugatum* may be distinguished by the joined leaf tips formed by near continuous veins along the leaf edge. All that remains in habitat is one individual plant, obviously mandating very urgent conservation status. Happily, it does exist in cultivation

The last remaining *Dictyosperma album* var. *conjugatum* in habitat. Round Island, leeward (photos by Vikash Tatayah. MWF)



A Virtual Tour of Mauritius



Latania loddigesii, Round island, western slope palm forest (both photos by Vikash Tatayah, MWF)

Latania loddigesii is a striking solitary palm with a large, stiff, waxy-blue costapalmate leaf. The abaxial surface is covered with a thick white woolly tomentum. It is this tomentum that most easily distinguishes it from *Bismarckia nobilis*, which also has a leaf similar in form and color. However, the tomentum on the undersurface of the *B. nobilis* leaf has a color described as cinnamon. *Latania loddigesii* was expected to be extinct, in habitat, by 2010. All that remained were a few trees estimated to be over 90 years old. However, after the successful eradication of feral pests, seedlings are abundant, with as many as five encountered per square meter.



A Virtual Tour of Mauritius

Hyophorbe lagenicaulis represents a superlative example of conservation, conducted under the auspices of the MWF. The species reached a nadir of only three, very elderly, adult trees, and extinction seemed imminent. Following the successful eradication of feral rabbits in 1986, *H. lagenicaulis* was re-introduced, and now there are over 300 thriving specimens! In addition, the MWF re-introduced the palm on Ile Aux Aigrettes where there are now about a dozen adult plants with a promising future (Tatayah).

Hyophorbe lagenicaulis in habitat, ex-hardwood forest, Round Island (photo by Vikash Tatayah, MWF). Notice the trunk bulging in the direction of the slope presumably for buttressing from the wind.

Hyophorbe lagenicaulis at dusk (photo by Gabby Salazar)



A Virtual Tour of Mauritius

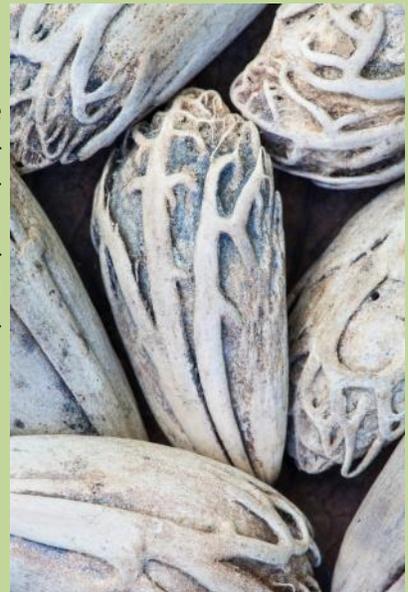
Finally, Mauritius includes several small islets including Ile aux Aigrettes, Ile Plate (Flat Island) and Ilot Gabriel (Gabriels Islet). These are coral islands which have been subjected to severe habitat loss for a variety of reasons. A leprosy hospital was built on Flat Island in 1807, devastating nearly all the natural vegetation. Gabriel's Islet is vulnerable to rats re-introduced by the intrusion of tourist boats and picnic day cruises. There are approximately ten adult specimens of *L. loddigesi* found on Ilot Gabriel, although at least two have been toppled by cyclone winds. Historic literature does indicate that all of these small island ecosystems were covered with palms at one time.

On Ile Aux Aigrettes, the Mauritian Wildlife Foundation has achieved an admiral restoration achievement. Ex-situ conservation is quite encouraging and includes all palm species endemic to Round Island.



Ile Aux Aigrettes “floating” in its lagoon. (photo by V. Mudhoo)

The Mauritian Wildlife Foundation administers a seed bank on the Ile aux Aigrettes nature reserve. The seeds of *Latania loddigessi*, photographed by Gabby Salazar, at the seed bank on Ile aux Aigrettes nature reserve. Immature seeds, while still soft, are considered edible. These magnificent seeds are “conspicuously sculpted and highly ornamental, mature seeds are especially handsome once polished and have been used to make attractive necklaces and other ornaments” (Hodel).



A Virtual Tour of Mauritius

Exotic and colorful (red, blue, white, yellow, and of course green), the palms of the Mascarene Archipelago are prized as ornamentals in cultivation around the world. Even right at home on these very islands:



Dictyosperma album (palmiste blanc) in a garden near Le Tampon, Reunion Island (photos by Laz Priegues)

Residential planting of *Dictyosperma*, Saint Denis, Reunion Island (photo by Laz Priegues)



Latania lonteroides in a traffic circle in Saint Denis, Reunion. Note flowering Jacaranda in the background (photo by Laz Priegues)

A Virtual Tour of Mauritius



Tectiphiala ferox in cultivation (photo by Olivier Reilhes)

I wish to acknowledge the invaluable expertise of Mr. Vikash Tatayah of the Mauritian Wildlife Foundation. He is yet another example of a deeply passionate plant conservationists/scientist that one is likely to meet through participation in our International Palm Society. He very kindly and thoughtfully answered my questions and donated the photographs without which this article would not be possible. Vikash is the conservation director of the Mauritian Wildlife Foundation and the co-chair of the Mascarene Islands plant specialist group, IUCN.

I would also like to thank Gabby Salazar, an extraordinarily talented photographer, conservationist, and research scientist. When I saw her incredible photograph of the bottle palm at dusk, I just knew I had to include it in this newsletter. She unhesitatingly gave me permission to use that photo and sent several more. I should note that she has

served as the president of the North American Nature Photography Association and is a fellow of the international league of conservation photographers. I sincerely hope that she will accompany us on our next biennial.

Next month: Rodrigues Island

Next month we shall complete our post biennial tour of the Mascarene archipelago with a visit to Rodrigues Island.

Habitat photograph, Rodrigues Island (photo by Gabby Salazar)



Not a member of the IPS?



You're Invited to Join the International Palm Society

Connect with people worldwide to
preserve the beauty of palms and our planet.

[JOIN US](#)

Our mission to preserve palms in habitat requires like-minded plant conservationists like you! As a member of the International Palm Society, you'll be joining the largest organization of palm enthusiasts in the world, solely dedicated to the education, preservation, and care of rare palms and their habitats. You'll enjoy meeting fascinating people and taking exciting adventures to exotic locations to see exclusive gardens, forests, and vistas. Join the global movement.

Already a member? Please consider supporting our society by encouraging new memberships among fellow palm and tropical plant enthusiasts.



DOES YOUR LOCAL CHAPTER/PALM SOCIETY HAVE AN EVENT? Let us know by promoting it here! Or share your experiences afterwards! Contact us and send us pictures!

Keep in mind that the IPS also offers merchandise online that can help you show off your membership, present your palm passion, and help spread the word about our community of palm enthusiasts!!

How do you get your own IPS items that include jewelry, shirts, caps, mugs, glasses, and many other practical items? Simply follow the “caps, t-shirt, totes, and more!” link from the IPS homepage [IPS Home](#), or go directly to this link: [IPS CafePress](#).



Remember to support our organization by participating with us! You can contribute by participating in our Palm Talk forum, our Facebook group, or by writing an article for either Palms journal or a note for IPS newsletter. You can also make an extra donation to the International Palm Society.



www.palms.org



@InternationalPalmSociety



@IPS_PalmSociety



@thepalmsociety