

How to Photograph

tiny tropical plants

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How to Photograph *tiny tropical plants*

Which are over 100 meters away
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On a recent field trip from Senahu through the Trece Aguas Secacao area (of Alta Verapaz, Guatemala) our plant guide (Pedro) tapped on the cabin of the 4WD pickup to suggest that I stop and look at something he had noticed far away. Since I have to try to keep the vehicle on the narrow trail-like dirt road, I can't scan the forests on the mountains to find interesting plants.

When I stopped and got out of the 4WD, I noticed what he had seen: bayal palm vines with beautiful bright red fruits.

The bayal palm is best known for much of the Peten area, such as Tikal. The bayal palm has many uses:

- Edible (the fresh young growth)
- House construction (as material for wattle)
- Basketry
- Furniture construction (like a flexible cane-like material)

Since the bayal palm is one of the really spiny palms, you have to scrape off the zillions of long sewing-needle shaped dark spines. Then you can work the material into whatever product that you need.

Bayal palm grows relatively fast, so it is a renewable resource. There are several species, such as *Desmoncus orthacanthos*. I would need to see the flowers to be able to know which species was here in Alta Verapaz.

I have never seen it flower since the vine is always very very high up in trees. And today was the first time I had seen the clusters of fruits.

Snag was that the bayal vines were over 100 meters away. The palm fruits were over a football field away. An each fruit was the size of a small cherry (or perhaps smaller). Here is the view with a 200mm lens.





I then tried our 400mm lens, but it did not even come close to getting a close-up. Yes, of course you can crop down to the fruits, but even with a tripod, at this distance there will be not perfect sharpness (because a fruit is the size of a coin seen 100 meters away).

Gitzo tripod. By mistake we did not have any of our Wimberley Gimbal heads this day, so I used a 30-year old Arca-Swiss tripod head (the original model; the big one; not the smaller follow-up model which was awful).

This kind of situation is why a digiscope system would be worthwhile to test. People all over the world use bird spotting scopes on their cameras. This way you get an 800mm, 1200mm, or multi-thousand mm lens at reasonable cost.

The Nikon CoolPix B700 has the equivalent of over 1200mm telephoto lens, but the output is a tad fuzzy (especially if not on a tripod). This is a point-and-shoot camera, so not capable of the quality you would expect from a SWAROVSKI OPTIK digiscope system.

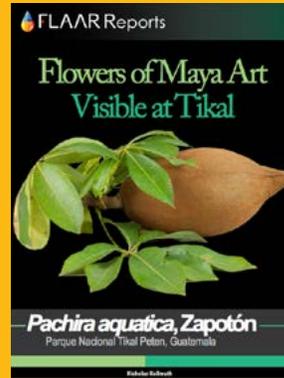
At Photokina 2016 I visited the SWAROVSKI OPTIK booth and Dale Forbes was hospitable and helpful. He said that in 2017 they would have a system for full-frame cameras. Earlier generation digiscopes did not provide full-frame coverage.

I have been photographing in Guatemala for over 54 years (since age 17). I have lived in the Neotropical rain forest for 12 months at age 19 (at Tikal, as an archaeology student intern from Harvard). In the 1970's I devoted five years of my life to create a national park to preserve the endangered area on the north side of Lakes Yaxha and adjacent Lake Sacnab.

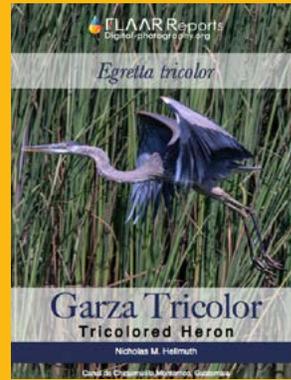
For recent years I have been working on a long-range project to find and photograph in high-resolution all utilitarian plants usable by the Mayan people of Guatemala (and Mexico, Belize, Honduras, and El Salvador).

In 10 years there will hardly be any original forest remaining outside the few national parks. And most of these parks have invading farmers and other people burning down the once pristine forest to plant commercial crops. In 2017 alone, huge areas of national parks were destroyed in several areas of Peten, Guatemala.

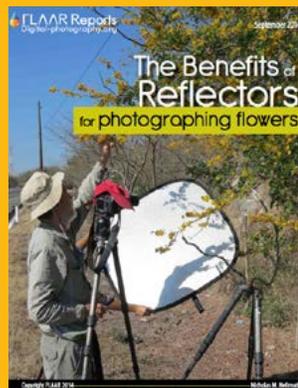
High-resolution, top-quality photographs can show the world what needs to be preserved. A 400mm lens; a 600mm lens, is not enough. I look forward to showing how a SWAROVSKI OPTIK digiscope system on a Nikon D5 can record awesome images to share with the world, on-line, in magazines, and on our popular web sites of FLAAR (such as www.Maya-ethnobotany.org).



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