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## Licuala grandis in its Native Habitat in Espiritu Santo, Vanuatu

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The center of the island of Espiritu Santo in Vanuatu (formerly the New Hebrides) in the South-west Pacific is virtually unknown territory for the botanist. It contains several mountains over 1,700 m high and, being in the tropics, these are clothed in rain forest presenting from a distance a forbidding dark green cloak. I have for several years been preparing an account of the orchids of Vanuatu and I suspected that this island, the largest in the archipelago and close to the Solomon Islands, was much richer in orchids than had previously been suspected. In late 1988 I at last had the opportunity to see for myself. Our party comprised three college students, Jos Wheatley, a forester who was a volunteer from England, a keen local naturalist, three guides from local villages and myself. The aim was to traverse the island, some 60 miles across, and to sample the vegetation from the coast to the highest peak, Mt. Tabwemasana (1,879 m). The major difficulty was envisaged to be the people who lived on our route who traditionally have been antagonistic to the government and had turned back previous visitors. However, we had our research permit and had obtained permission to try our luck.

After weeks of heavy rain, we woke to a fine morning and were taken by the local schoolmaster, Barry Laing, in his Land Rover to Big Bay in the north of the island from where our trek was to start. Quiros, the Spanish adventurer who discovered the archipelago, had landed here nearly four hundred years ago and was convinced that

he had discovered the great southern continent. The river that flows into the bay was christened by him the Jordan and we aimed to follow it inland to its source and then to join another river running south to the sea near Luganville, the only large town on the island.

We started our ten day trek at Brokstone, a large outcrop of limestone overlooking Big Bay and about 3 km inland. Although the Forest Department maps show the interior of the island to be covered



1. *Licuala grandis* at Chonitavara, Espiritu Santo.



2. The road to Big Bay.

in continuous rain forest, many people live in the interior in villages of from two to thirty huts and much of the land, especially on the flatter areas, is either cleared for agriculture or is secondary forest dominated by *Kleinhovia*. Introduced cattle and horses that have now escaped have also damaged the lower areas. However, there are patches of reasonable primary forest along the river and in a couple of these we came across two interesting palms. The first in high forest on limestone was a rattan in full fruit. These were white and borne in large branching bunches. John Dransfield has tentatively named this as *Calamus* near *C. vitiensis*.

Towards the end of the first afternoon colonies of a small but very pretty palm attracted my attention. Standing only up to 4 m tall, the top of the slender stems bore several dark green fan-shaped leaves. This was *Licuala grandis*, known from Espiritu Santo and a few neighboring islands

(see J. Dowe 1989, Palms of the South-west Pacific), and collected originally in late Victorian times when Peter Gould Veitch of the famous nursery of Messrs. Veitch and Sons of Chelsea sent seed back to England. Veitch grew it successfully and it has become one of the most widespread of all palms in cultivation. Until recently, its origin remained a mystery because Veitch said that it came from New Britain, no doubt to mislead competitors.

The colonies were invariably growing in deep shade in forest by the river and by subsidiary streams. Many of the plants had their feet in water when we saw them but it had been very wet for the previous few weeks and by the time we returned ten days later the forest floor had dried up in most places. The distribution of the palm in the Valley of the Jordan River was very restricted, possibly covering only a few square km. However, the forest floor where it was found was, in places, covered by



3. The view north to Big Bay from above Chonitavara, Espiritu Santo.

young seedlings. Some larger specimens growing in a cleared plantation near the river were in full fruit and seed that was just turning orangey red was collected. These have been successfully germinated at Kew and we hope they will eventually be added to the specimen of unknown origin already on exhibit in the Palm House.

The expedition, which was mainly looking at the orchids, was a success although we were turned back in our attempt to cross the island after we had climbed Tabwemasana. These islands are still very poorly botanized and the fact that this one

expedition of ten days increased the number of orchids recorded from the island from twenty seven to one hundred gives some idea of the need for further exploratory work there.

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