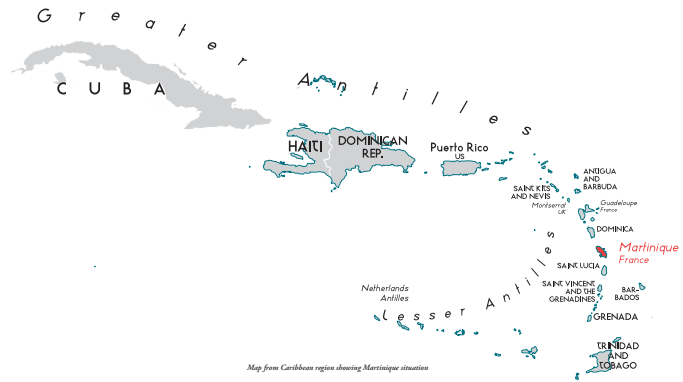


# Martinique orchids, a unsuspected biodiversity

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According to most recent studies, France owes a third of world described species particularly due to its tropical territories : its Coral barriers especially in Pacific Ocean but also its tropical forests in Guyana, Réunion Island and also West Indies...

Martinique island from « petites Antilles » bears an important botanical diversity. This diversity isn't well known from general public and was less studied than the Guadeloupe diversity, other French island from « Petites Antilles ».

In Martinique, some 470 tree species and 77 orchid species have been described. A few others are still to be discovered., 15% are ground species et 85% mainly epiphytes. The most represented genera are *Epidendrum*, and *Pleurothallis*.



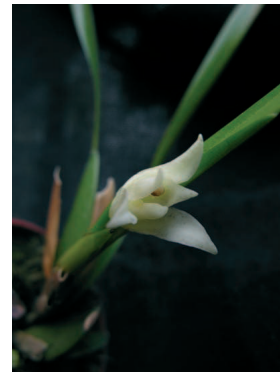
The magnificent *Epidendrum ciliare* L. has a wide distribution in South and Central America. In Martinique, it grows in sunny areas and its fragrant flowers exceed 10cm wide. We must protect this orchid against picking up.



*Pleurothallis aristata* Hook. This beautiful small orchid is common from 200 till 1300m altitude.



*Maillaria coccinea* (Jacq.) L.O.Wms. ex Hedge. This species is fairly common and has beautiful red flowers. It is an endemic from the Caribbean.



Around 700m above sea level in the rainforest: I was astonished to find *Maillaria alba* (Hook.) Lessal, a species new for the Martinique flora and not previously recorded from the inner forest...



Along a road leading to Mount Pelée, I could admire the rare and beautiful *Epidendrum rubroviolaceum* Hagauer

## Why such biodiversity?

Martinique has a great biodiversity in a small territory (1100 km<sup>2</sup>). Explanations to this fact are numerous:

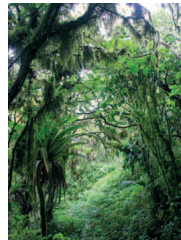
- Well preserved forests cover 36% from territory ;
- Tropical humid climate ;
- Very diverse ecosystems in the island due to various temperature, rainfall, topography and soil conditions
- Altitudes ranging from sea level till 1397m (Summit from Montagne Pelée).



Xerophytic forest during the dry season at 100m altitude. The tree *Bursera simaruba* without leaves can be seen in the foreground. This area is poor in orchids.



Rainforest at 600m altitude close to the extinct volcano "Le Carbet". This area is very rich in epiphytic orchids in the canopy. We can see numerous *Pleurothallis*, *Epidendrum*, some *Maillaria*, *Vanilla*, *Dichaea*...



Around 800m above sea level, one can observe a shrub forest 2-3 m high. There are a lot of epiphytic orchids such as *Pleurothallis* species, but also *Leptocarpus aurea* Ldb., *Saprophyllites nudata* (Rohlf.) Schltr.



Area high on the slope of the volcano Mount Pelée. Above 1000m altitude, there are more trees but a lot of *Bromeliaceae* and ferns can be seen. There are daily fog. There are not many orchids, but they sometimes grow in the moss, for instance some *Epidendrum* species.



Disturbance by a bulldozer in a limited area of the nature park to build a parking. There were a dozen species of orchids on these trees but also some orchid *Utricularia alpina*.

## Fragile environments to protect

Although protected areas (natural reserves) represent 640 km<sup>2</sup>, numerous threats happen to orchids and their biotopes in Martinique for instance :

- Urban sprawl and sometimes without permission ;
- Deforestation without permission ;
- Heavy erosion of steep land without vegetation ;
- Road and path sides care with excessive cut ;
- Practise of some sports such as canyoning ;
- Illegal garbage dumps ;
- Picking or pulling off most beautiful orchids like *Epidendrum ciliare* L., *Oncidium altissimum* Sw.
- Proliferation of some introduced plants...

## Conclusion :

Martinique Island presents a great biodiversity, in particular an interesting flora of epiphytic orchids in areas above 600-700m, which need further studies and protection

Litterature : Descourvières Pascal, 2009, Présence en Martinique d'un *Maillaria* non mentionné. In *L'Orchidophile* 181-2