

A Red Latan Population on the South Coast of Réunion

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Latan palms are emblematic of the Mascarene Archipelago, since each island has its own species. The red latan, *Latania lontaroides*, is endemic to Réunion Island. Specimens are scattered here and there along the west coast and more frequently on the south coast of the island. A small population is also present in the Cirque de Mafate, near Bras des Merles creek. Some place names, such as Ravine des Lataniers, at La Possession, are testimony to a not too distant past, when red latans were much more abundant than nowadays.

For over two centuries red latan was a source of cheap timber and roofing for farm buildings and small cabins. When the first settlers landed in Réunion in the mid-seventeenth century, red latan was also the only fruit species present, bearing “*pommes latanier*,” the immature endosperm of which was appreciated as a delicacy.

Over-harvesting of red latan led to the scarcity of the species. However, as long as the palm tree was considered useful and necessary, some protective measures were taken. If the *pomme latanier* is still eaten occasionally, the other parts of the red latan are now considered useless and the bitter taste of the cabbage never aroused gourmet enthusiasm.

Another reason for the scarcity of red latan on coastal farm lands is due to mechanical removal of stones from fields. This program,

led by Conseil Général and Ministry of Agriculture over the last thirty years, has cleared sugarcane fields of basalt boulders and, at the same time, of pockets of latan palms that survived among the rocks. This is how the last red latans in Terre-Rouge, a farming area of Saint-Pierre, were “eradicating” in December, 2003. Twenty years earlier an important population of *Latania lontaroides* suffered the same misfortune in Manapany.

However, the red latan is still present in the landscape of the south coast of Réunion, especially from Ravine des Cafres to Vincendo, with more abundant populations in Grands-Bois and along sea cliffs, near Grande Anse, in the district of Petite-Ile.

A couple of years ago, Philippe De Vos brought to our attention the presence of “a forest of red latans emerging along virgin coastline” at Cap



1 (upper left). The red latan “forest” at Cap de l’Abri; in the foreground is *Scaevola taccada* (left) and *Noronhia emarginata* (right). Photo by Marc Gérard. 2 (upper right). The red latan “forest” at Cap de l’Abri in the undergrowth. Photo by Marc Gérard. 3 (lower left). Red latan seedling with two eophylls. 4 (lower right). “Pommes latanier” eaten by rats.

de l’Abri, near Grande Anse beach (Figs. 1 & 2). Located along the cliff rim, on a section which slopes down gently toward the ocean, this impressive *Latania lontaroides* population is found on a substratum of oceanite-type lava from the Piton de la Fournaise volcano, approximately 350,000 years old. This population numbers about 200 specimens, distributed in three groups, most of them adults, including 73 female individuals bearing heavy infrutescences. The stems are 6–8 meters tall, with an average diameter of 20 cm, though the stem base is often swollen (diameter up to 45 cm). Twin specimens with merging swollen bases are not uncommon; it is thought that they either result from two seeds that germinated together on the same spot or from one single big seed containing two distinct embryos. It is difficult to give a reliable estimation of the age of these latans since they grow in harsh environmental conditions – rocky soils, strong winds and sea spray, which probably slows down growth. It seems reasonable to estimate they are 60–80 years old. The ground strewn with many rocks and boulders is covered with a litter of dry leaves that prevents a good germination rate at the foot of the female palms, but at the

same time keeps away some invasive species such as *Lantana camara* or *Schinus terebenthifolius*, which are present on the surrounding land.

In October, 2003, on our previous visit, we noticed many seedlings at the stage of one or two eophylls (Fig. 3). If local conditions are not particularly favorable to good regeneration, the rocky substrate, with wide cracks, retains enough humus and fine soil to allow germinating seeds to send down their roots. In May 2004, we found one single seedling and no *pommes latanier* on the ground! It appears that some seeds and seedlings had been collected on the site, though access through Grande Anse, by climbing the cliffs, is dangerous; the only other access requires crossing private lands, subjected to owners’ authorization.

The red latan population of Cap de l’Abri belongs to a littoral ecosystem including native as well as exotic species, some of which are potentially invasive. Table 1 lists the species present. Half of these species are exotic and two must be considered as very invasive plants: *Lantana camara* and *Schinus terebenthifolius*, though a third one, *Agave vera-cruz*, is also

Table 1. Plants associated with the Cap de l'Abri littoral ecosystem.

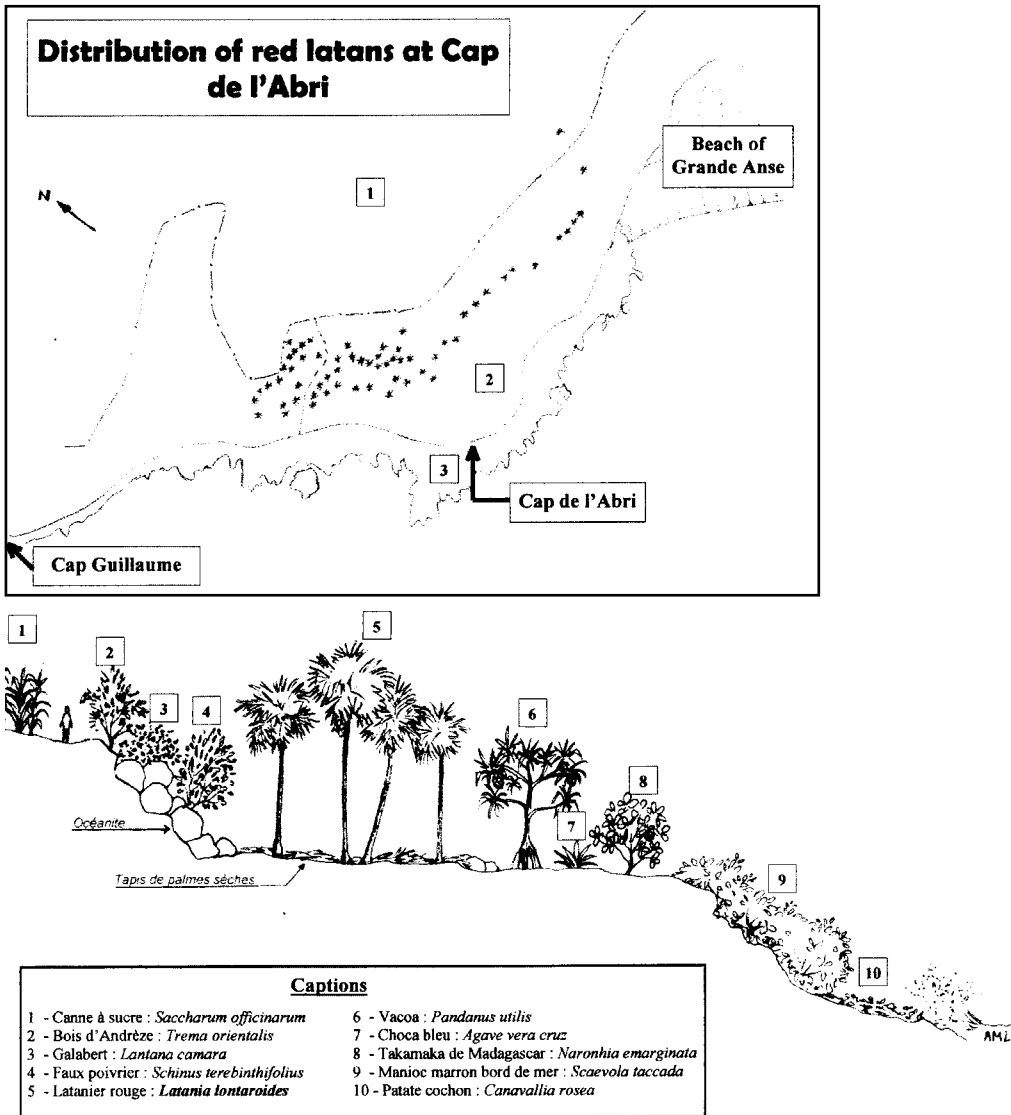
Species	Local names	Status	Characters
<i>Agave vera-cruz</i>	<i>Choca bleu</i>	Exotic from Mexico	Acaulescent succulent plant, 1.5–2 m tall
<i>Canavalia rosea</i>	<i>Patate cochon</i>	Native	Lianescent creeping weed
<i>Delosperma napiforme</i>	<i>Lavangère</i>	Endemic to Reunion	Small succulent herb with tuberous roots
<i>Flacourtia indica</i>	<i>Prune malgache</i>	Exotic from Madagascar, or native?	Shrub or bush with alternate glossy leaves
<i>Ipomoea pes-caprae</i>	<i>Patate à Durand</i>	Native	Lianescent creeping weed
<i>Lantana camara</i>	<i>Galabert</i>	Exotic from Central America	Invasive thorny bush
<i>Latania lontaroides</i>	<i>Latanier rouge</i>	Endemic to Réunion	Single stemmed palm with costa-palmate leaves
<i>Noronhia emarginata</i>	<i>Takamaka de Madagascar</i>	Exotic from Madagascar, or native?	Small tree or bush
<i>Pandanus utilis</i>	<i>Vacoa</i>	Endemic to Mascarenes	Small tree with stilt roots
<i>Scaevola taccada</i>	<i>Manioc marron bord de mer</i>	Native	Spreading shrub with bright green leaves
<i>Schinus terebinthifolius</i>	<i>Faux poivrier</i>	Exotic from South America	Very invasive bush or small tree bearing small pink berries
<i>Stenotaphrum dimidiatum</i>	<i>Trainasse</i>	Native	Grass with a creeping rhizome
<i>Trema orientalis</i>	<i>Bois d'andrèze</i>	Exotic from Africa, Asia or native?	shrub

potentially invasive. Two other species are usually abundant in the south coastal ecosystem, especially in nearby Grande Anse – *Casuarina equisetifolia* and *Flacourtia indica*. The first one is not present at Cap de l'Abri; the second one is barely present. We have located only two small specimens on the lower edge of a sugarcane field.

Several other species are common on the rocky coast line in southern Réunion. *Canavalia rosea* and *Ipomoea pes-caprae*, though more often present on sand beaches, are creeping along the rock surface at the lower level of the site. *Delosperma napiforme* grows in the cliff rocks exposed to sea spray. *Scaevola taccada* is abundant and grows in dense thickets up to 1.5

m in height. The small tree *Noronhia emarginata*, and to a less extent, *Pandanus utilis*, form a sort of wind screen at the intermediate level, behind the *Scaevola taccada*, which protects the *Latania lontaroides* palm grove located beyond (Fig. 5).

Except for *Delosperma napiforme* and *Latania lontaroides*, none of these species is unique to the south coastal ecosystem of Réunion. Instead it is the juxtaposition of native species, including *Noronhia emarginata*, whose status is doubtful, and the presence of *Latania lontaroides* that makes the coast of the “*Sud Sauvage*” (wild south) unique, and the site of Cap de l'Abri is the highlight of this coast, with its dense population of red latans.



5. Map of Cap de l'Abri (top), showing location of sugarcane fields (1), *Latania lontaroides* population (2) and sea cliff (3), and diagram of the littoral vegetation (below), showing the zonation from the sea (at the right side of the diagram) to the inland (left side).

Nevertheless, the Cap de l'Abri vegetation, restricted to a small area, is threatened by several factors: a strongly anthropogenic environment, with sugarcane farming right up to the cliff rim and more and more houses built on adjacent land; the presence of invasive, alien species on the edges of the site and the high risk of intrusion in the red latan population; the over-harvesting of seeds in by nursery owners and palm seed traders, as well as the regrettable harvesting of seedlings whose chances of survival after transplanting are minimal; the predatory action of rats that climb up the palms and eat the *pommes latanier* while the endosperm is still soft (Fig. 4).

We consider the Cap de l'Abri littoral vegetation is of major botanical interest. It is worth taking conservation measures urgently, especially since an explicit mandate for environmental protection exists. Among these measures we suggest: expropriation of the land by Conservatoire du Littoral; eradication of *Latana camara* and *Schinus terebinthifolius* by manual uprooting; sowing red latan seeds "in situ" on ground previously cleared and re-introduction of young palms grown from seeds harvested on the site; belting of female palms trunks to prevent rats of reaching the infructescences; control of the area by guards to prevent seed and seedling poaching.

These protective measures should reinforce the dynamics of red latan regeneration and lead to expansion of the population at the expense of invasive species. This is a necessary rescue of the coastal ecosystem, even if one may wonder why there is such a density of *Latania lontaroides* on the edge of a deeply anthropized background. A "gramoun" (Creole word for old man or grand father) living nearby reported that in "temps longtemps" (or "tan lontan" meaning in the old days) less than a century ago, people still used to grow red latans for roofing. What should we understand? Possibly the action of sowing a few seeds in a hole with the hope that several decades later, one could look at two or three sturdy palms and collect their leaves for one's own purpose.

The red latan palm grove at Cap de l'Abri, whether in its natural state or reinforced by human interaction, is unique. This justifies all the steps that should be taken for the conservation of this habitat, with the partnership of all local institutions, including the Conservatoire du Littoral and Palmeraie-Union, the local chapter of the International Palm Society.

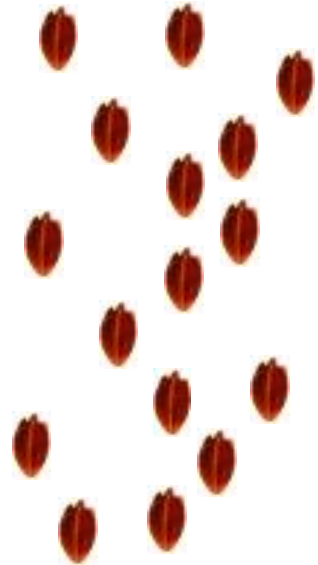
Acknowledgements

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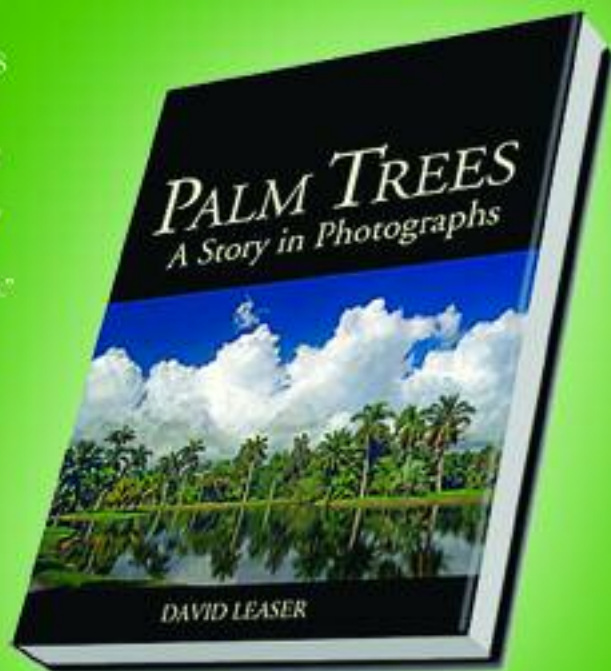
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