

Relocation of 'extinct' *Ficus densifolia* Miq. (Moraceae) in Mauritius

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Five native species of fig (*Ficus* spp.) are recorded from Mauritius (Berg & Heusden, 1985). Two are relatively common and widespread occurring on all three Mascarene Islands: affouche rouge (*F. rubra* Vahl.) (also on Seychelles and Aldabra) and affouche batard (*F. reflexa* Thunb.) (also on Seychelles and Madagascar). The remaining species, *F. mauritiana* Lam., (figuier sauvage), *F. laterifolia* Vahl., (figuier blanc) and *F. densifolia* Miq., (grand affouche) are endemic to Mauritius and Reunion. The latter two species have no common names on Mauritius, apparently indicating they might have been relatively rare on the island for a long time.

F. densifolia was described in 1867 from a sample collected on Reunion where recent estimates indicate that the species is quite common (C. Lavergne pers. comm. 2006) contrary to previous information (Berg & Heusden 1985). It was not until about 85% of Mauritian forests had already been destroyed (Vaughan & Wiehe 1937), that the species was first located on Mauritius by Dr R. E. Vaughan in 1938 (Mauritius Herbarium voucher MAU 1742, Figure 1). The plant was growing in an area of marshy native vegetation in the uplands at Le Pétrin. It was an isolated tree reaching 3 m high. It was nevertheless cut down in 1968 to make way for pine plantations in the region despite being the only known individual of its species on Mauritius (G. D' Argent, pers. comm. 2006). Thirty years later a second much larger individual was found during surveys prior to the widening of the motorway at Wooton (near Curepipe, Figure 1). No effort was made to avoid the tree, instead 300 cuttings were taken, all of which failed (V. Tezoo, pers. comm. 2006), and the last known Mauritian individual of *F. densifolia* was for the second time chopped down, reflecting the importance attached to conservation in this country then ranking among the top two in the world in terms of threatened flora (Walter & Gillet 1998). From then on the species was presumed extinct on Mauritius.

On 29th January 2006, the third plant of the species ever to be located on Mauritius was discovered by the authors (MAU 24317, Fig. 1) in a patch of native upland forest heavily invaded by the alien *Psidium cattleianum* Sabine (Myrtaceae). Native constituents included mainly *Nuxia verticillata* Lam. (Stilbaceae), with some *Aphloia theiformis* (Vahl.) Benn. (Aphloiaceae) and *Calophyllum tacamahaca* Willd. (Clusiaceae). It is a thick stemmed tree branching into two main stems of 37 cm and 48 cm dbh and rising to about 9 m, with a wide crown of dense foliage. With this finding, the known habitat of the species in Mauritius falls within a zone located between altitudes of 550-680 m and receiving an annual rainfall of 2,600-3,500 mm.

NOTES

Although found within the Black River Gorges National Park, the tree is not for as much safe since it grows a few metres from the Chamarel-Plaine Champagne road, which is currently being enlarged at places. The threat of seeing the last known Mauritian individual of the species being chopped down for the third time is thus real. Since only one plant growing in a heavily invaded forest is known, the species should be regarded as Critically Endangered on Mauritius (CR B1ab(iii, iv, v) + 2ab(iii, iv, v); C2a(i), D) using the IUCN criteria (IUCN 2001). The species' world status is less worrying due to its presence on Reunion.

A species recovery programme should be implemented urgently. The enlargement of the road in the vicinity of the tree should first be avoided. At the time of discovery, the tree was bearing immature fruits and their collection once mature is vital, especially because this can be a rare opportunity. The specimen in Pétrin apparently fruited only once during its 30 years of known existence (G. D'Argent, pers. comm., 2006). It is also advisable to try propagation by cuttings and if these fail then more demanding techniques as air-layering and tissue culture should be attempted. Further surveys in the region should also be conducted to try find more individuals. The National Parks and Conservation Services, the Government institution responsible for the management of the National Park has started weeding out alien species around the tree.

Ficus is an essential component of tropical forests, being claimed to be “the most important plant genus for tropical frugivores” (Shanahan *et al.* 2001). Some

Fig. 1 Distribution of *F. densifolia* in Mauritius, with year of discovery of each tree. Only the tree found in 2006 survives.

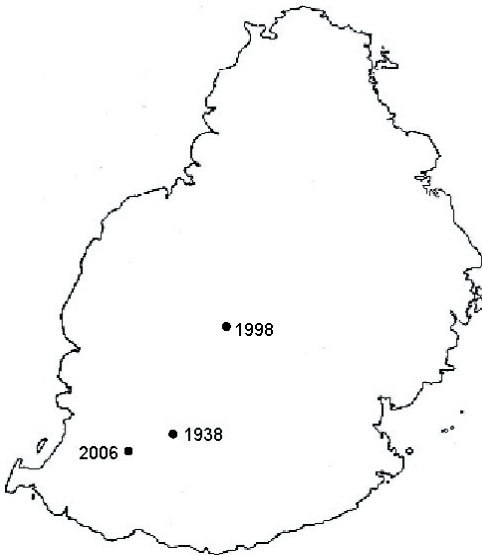


Fig. 2. The surviving Mauritian *Ficus densifolia*



authors consider the genus as containing many keystone species (Nason *et al.* 1998, Kannan & James 1999), and *in-situ* species recovery programmes suggest conservation or planting of fig species to sustain or increase fig-eating bird communities (Evans 1979; Lambert 1991). *F. densifolia*'s presence on Reunion should be no excuse to allow the species and its ecological role to disappear from Mauritius.

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Partial albinism in the hawksbill turtle (*Eretmochelys imbricata*) on Cousine Island, Seychelles.

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During work on hawksbill turtles on Cousine Island in the Seychelles, 74020 hatchlings (1995-2004) were examined (Table 1). Two of these, from one nest, displayed partial albinism of the fore-fippers (Fig 1). These hatchlings displayed no other apparent morphological or deformities, and were released with their normally coloured siblings.

Albinism is apparently rare among sea-turtle, being reported from loggerhead turtles (*Caretta caretta* L.) for which PRICHARD (1979) reported that “in some areas it is not uncommon to find one or two non-viable albinos in a nest: this albinism is often correlated with mouth deformities and cyclopism.” HUGHES *et. al* (1967) reported that