

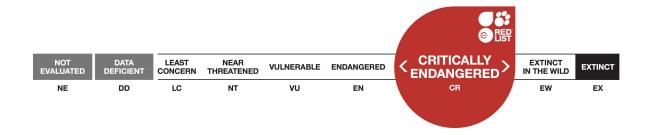
RED

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Scope: Global Language: English

# Pittosporum tanianum

Assessment by: Gemmill, C. et al.



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## **Taxonomy**

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Rosales	Pittosporaceae

Taxon Name: Pittosporum tanianum Veillon & Tirel

#### **Taxonomic Source(s):**

Tirel, Ch. and Veillon, J.-M. 2002. Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae. Museum d'Histoire Naturelle, Paris.

### **Assessment Information**

Red List Category & Criteria: Critically Endangered B1ab(iii,v)+2ab(iii,v); C2a(i); D ver 3.1

Year Published: 2017

Date Assessed: July 24, 2015

#### **Justification:**

Pittosporum tanianum is an endemic shrub of New Caledonia known exclusively on île Léprédour, located on the west coast of Grande Terre. Epithet tanianum is coming from the name Tani corresponding at île Leprédour in Kanak language. Strongly threatened by invasive species, population of P. tanianum is only composed by 2 individuals. Under pressure of rusa deer (Rusa timorensis) and feral rabbit, a continuous decline of number of individuals and habitat quality is observed. This species was the object of numerous conservation plans, which fail to contain the decline of individual numbers. Using criteria B, C and D, P. tanianum qualifies as Critically Endangered (CR) B1ab(iii,v)+2ab(iii,v);C2a(i);D.

#### **Previously Published Red List Assessments**

2004 – Critically Endangered (CR) http://dx.doi.org/10.2305/IUCN.UK.2004.RLTS.T35030A9906887.en

2003 - Data Deficient (DD)

1998 – Extinct (EX)

1998 - Extinct (EX)

# **Geographic Range**

#### **Range Description:**

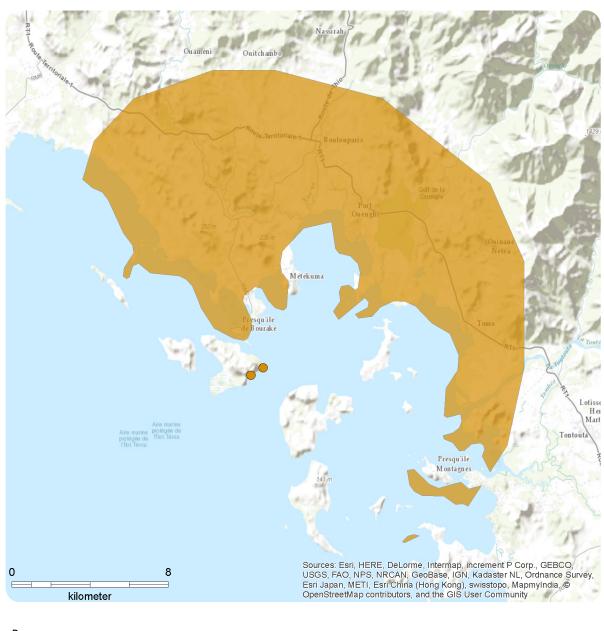
*Pittosporum tanianum* is an endemic tree of New Caledonia exclusively known on île Léprédour, located on west coast of Grande Terre.

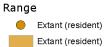
#### **Country Occurrence:**

Native: New Caledonia

# **Distribution Map**

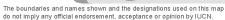
#### Pittosporum tanianum





Compiled by: PCFS







# **Population**

From current field observations, only one male and one female individual remain of the natural population on îlot Leprédour. For in situ plantations done by CEN, only 50% of the planted individuals remain and none are yet mature. Concerning the ex situ population located in parc zoologique et forestier, there is no evidence of mortality.

**Current Population Trend:** Decreasing

## Habitat and Ecology (see Appendix for additional information)

Pittosporum tanianum occurs in low-altitude strongly damaged sclerophyllous forest on calcareous soils.

**Systems:** Terrestrial

# **Threats** (see Appendix for additional information)

Pittosporum tanianum is severely threatened by invasive animal species. Introduced in the 1880s, Rusa Deer (Rusa timorensis) and at the end of 1970s European Rabbit, these two species are the cause of severe damage to the environment resulting in erosion as well as loss of mature individuals and lack of seedling regeneration.

## **Conservation Actions** (see Appendix for additional information)

Protected species by legislation in Province Nord and Province Sud, two natural mature individuals remain in réserve naturelle de l'Ile Leprédour. Ex situ propagation in a nursery needs to be maintained going and population control of invasive species inside the protected area is being organized. Of 300 plants produced as a part of conservation of Pittosporum tanianum, 100 plants have been planted on île Leprédour and 100 plants in parc zoologique et forestier. The Parc zoologique population shows good results while the in situ plantation recorded 50% of mortality. The first generation was grown from germination of seed. The next generations were propagated from cuttings. On intra-genus crossings tried, only crossing with P. coccineum and P. croceum worked well. The urgent situation of P. tanianum justifies extending surveys to nearby areas where vegetation is similar, such as presqu'île Montagnès, Perceval, îlot Moro and îlot Page.

## **Credits**

Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, Assessor(s):

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3

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Compiler(s):

# **Bibliography**

Bouchet, P., Jaffré, T. and Veillon J.-M. 1995. Plant extinction in New Caledonia: protection of sclerophyll forest urgently needed. *Biodiversity & Conservation* 4: 415-428.

Endemia.nc. 2016. Faune et Flore de Nouvelle-Calédonie. Available at: http://www.endemia.nc.

IUCN. 2017. The IUCN Red List of Threatened Species. Version 2017-3. Available at: <a href="www.iucnredlist.org">www.iucnredlist.org</a>. (Accessed: 7 December 2017).

Tirel, Ch. and Veillon, J.-M. 2002. *Flore de la Nouvelle-Calédonie, tome 24. Pittosporaceae*. Museum d'Histoire Naturelle, Paris.

### Citation

Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G., Letocart, I., Letocart, D., Maggia, L. & Pain, A. 2017. *Pittosporum tanianum. The IUCN Red List of Threatened Species 2017*: e.T35030A67747859. <a href="http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T35030A67747859.en">http://dx.doi.org/10.2305/IUCN.UK.2017-3.RLTS.T35030A67747859.en</a>

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### **External Resources**

For Images and External Links to Additional Information, please see the Red List website.

# **Appendix**

## **Habitats**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Habitat	Season	Suitability	Major Importance?
1. Forest -> 1.5. Forest - Subtropical/Tropical Dry	-	Suitable	-

### **Threats**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Threat	Timing	Scope	Severity	Impact Score	
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Oryctolagus cuniculus)	Ongoing	-	-	-	
	Stresses: 1. Ecosystem stresses		stresses -> 1.2. Ecos	ystem degradation	
·			ecies Stresses -> 2.3. Indirect species effects -> Reduced reproductive success		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Rusa timorensis)	Ongoing	-	-	-	
	Stresses:	1. Ecosystem	stresses -> 1.2. Ecos	ystem degradation	
		2. Species Stre	esses -> 2.1. Species	mortality	
		2. Species Stre	esses -> 2.2. Species	disturbance	
		•	esses -> 2.3. Indirect d reproductive succ	•	

# **Conservation Actions in Place**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

Conservation Actions in Place		
In-Place Land/Water Protection and Management		
Occur in at least one PA: Yes		
Invasive species control or prevention: No		
In-Place Species Management		
Successfully reintroduced or introduced beningly: No		
Subject to ex-situ conservation: Yes		

# **Conservation Actions Needed**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

#### **Conservation Actions Needed**

3. Species management -> 3.4. Ex-situ conservation -> 3.4.1. Captive breeding/artificial propagation

### **Research Needed**

(http://www.iucnredlist.org/technical-documents/classification-schemes)

#### **Research Needed**

1. Research -> 1.2. Population size, distribution & trends

### **Additional Data Fields**

Distribution
Estimated area of occupancy (AOO) (km²): 8
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km²): 8
Continuing decline in extent of occurrence (EOO): No
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 1
Continuing decline in number of locations: No
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 80
Upper elevation limit (m): 150
Population
Number of mature individuals: 2
Continuing decline of mature individuals: Yes
Extreme fluctuations: No
Population severely fragmented: No
No. of subpopulations: 1
Extreme fluctuations in subpopulations: No
All individuals in one subpopulation: Yes
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0

# The IUCN Red List Partnership



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<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

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