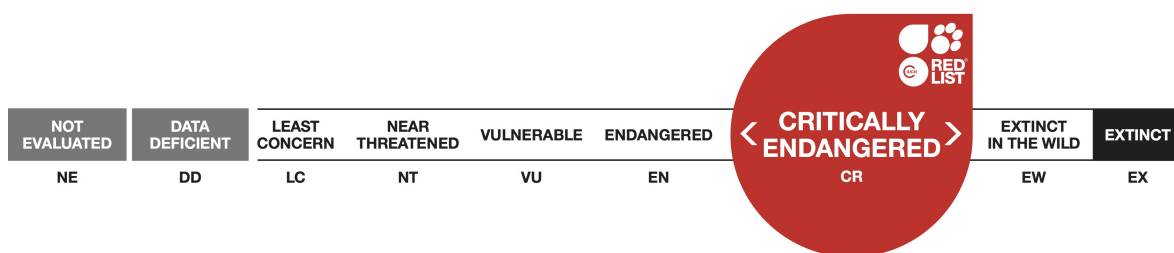


## *Pittosporum bernardii*

Assessment by: Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G. & Maggia, L.



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## Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Rosales	Pittosporaceae

**Taxon Name:** *Pittosporum bernardii* Tirel & Veillon

### 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)+2ab(iii) [ver 3.1](#)

**Year Published:** 2017

**Date Assessed:** July 23, 2015

### Justification:

*Pittosporum bernardii* is an endemic shrub known from a single locality on the main island of New Caledonia: Oui Pouin. Since the first collection in 1965, it has never been seen again despite field surveys. It occurs in the undergrowth of humid forest at an altitudinal range 500-700 m asl. *Pittosporum bernardii* could have gone extinct due to combined pressures from recurrent bushfires and the presence of invasive Rusa Deer (*Rusa timorensis*); however, surveys are required to determine if it is still extant or not. With an area of occupancy and extent of occurrence of 4 km<sup>2</sup> and an estimation of continuous decline in habitat quality, *P. bernardii* qualifies for listing as Critically Endangered (CR) B1ab(iii)+2ab(iii).

## Geographic Range

### Range Description:

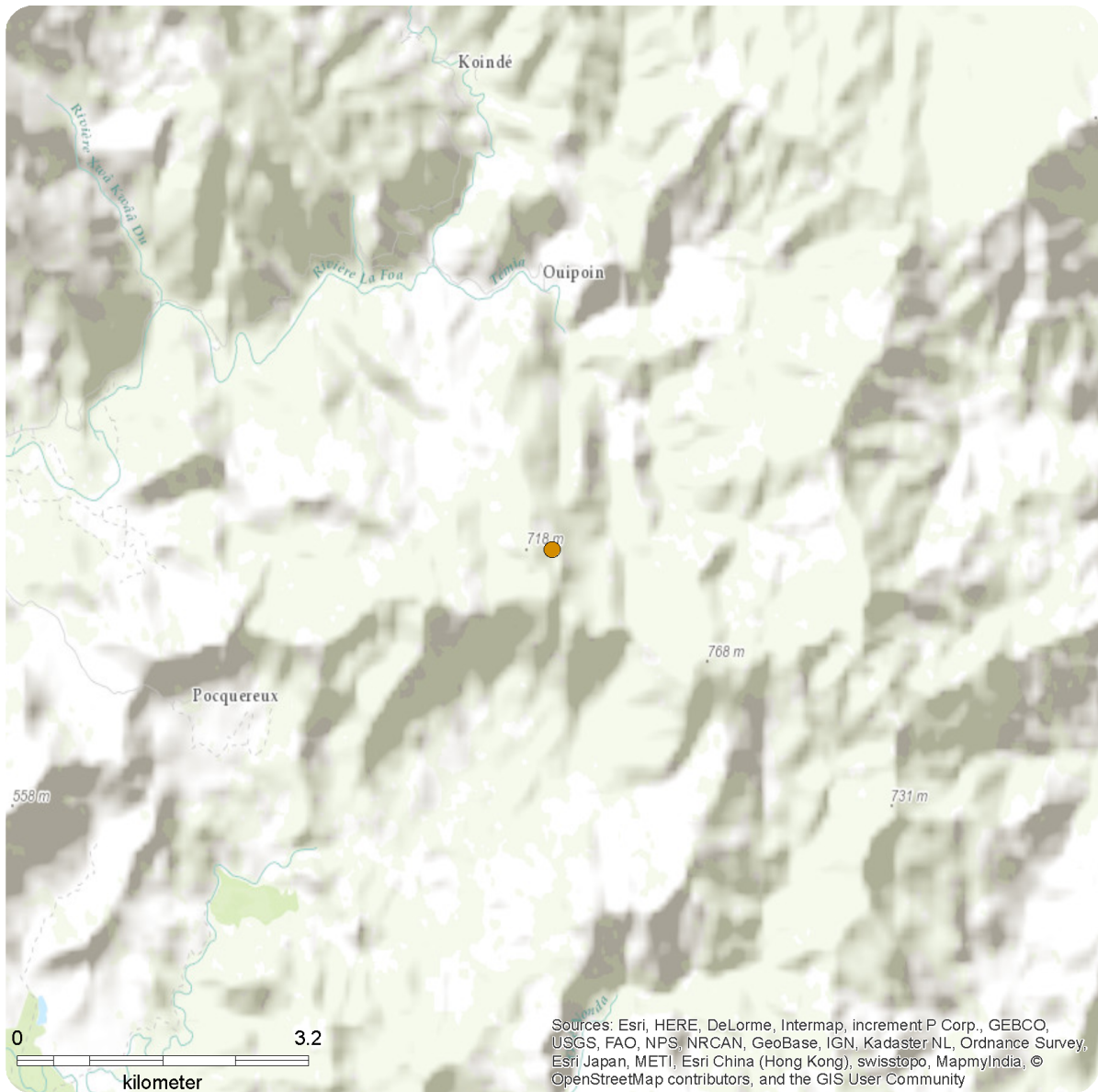
*Pittosporum bernardii* is an endemic shrub known from only a single locality on the main island of New Caledonia: Oui Pouin.

### Country Occurrence:

**Native:** New Caledonia

# Distribution Map

*Pittosporum bernardii*



## Range

- Extant (resident)

Compiled by:

IUCN SSC New Caledonia Plants RLA



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



## Population

Population size is unknown due to a lack of data.

**Current Population Trend:** Decreasing

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

*Pittosporum bernardii* occurs in the undergrowth of humid forest on schist and greywacke at an altitudinal range 500-700 m asl.

**Systems:** Terrestrial

## Threats (see Appendix for additional information)

According to its distribution, *Pittosporum bernardii* is threatened by Rusa Deer, frequent fires, and mining activities, which form the three major threats to the New Caledonian flora.

## Conservation Actions (see Appendix for additional information)

*Pittosporum bernardii* is not protected by any legislation and does not occur in any protected areas. In order to confirm the survival of this species, surveys at the Oui-Pouin locality are urgently needed, as well as at Koghis, corresponding to an old collection from Balansa. A count of mature individuals will enable the population dynamics to be monitored. To improve knowledge on New Caledonian species of *Pittosporum*, and especially the relatedness between *P. heckelii* and *P. bernardii*, further research, such as fine-scale phylogenetic and ecological studies, are urgently required.

## Credits

**Assessor(s):** Gemmill, C., Veillon, J.-M., Amice, R., Cazé, H., Dumontet, V., Fleurot, D., Garnier, D., Gâteblé, G. & Maggia, L.

**Reviewer(s):** Tanguy, V.

**Facilitators(s) and Compiler(s):** Chanfreau, S.

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

Gomez, C., Mangeas, M., Curt, T., Ibanez, T., Munzinger, J., Dumas, P., Jérémy, A., Despinoy, M. and Hély, C. 2014. Wildfire risk for main vegetation units in a biodiversity hotspot: modeling approach in New Caledonia, South Pacific. *Ecology and Evolution* 5(2): 377-390. DOI: 10.1002/ece3.1317.

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

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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 -> 1.6. Forest - Subtropical/Tropical Moist Lowland	-	Suitable	-

## Threats

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

Threat	Timing	Scope	Severity	Impact Score
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation		
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	-	-	-
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 1. Ecosystem stresses -> 1.2. Ecosystem degradation 2. Species Stresses -> 2.1. Species mortality		
8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species ( <i>Rusa timorensis</i> )	Ongoing	-	-	-
	Stresses:	2. Species Stresses -> 2.2. Species disturbance 2. Species Stresses -> 2.3. Indirect species effects -> 2.3.7. Reduced reproductive success		

## 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: No
Invasive species control or prevention: No
In-Place Species Management
Successfully reintroduced or introduced benignly: No
Subject to ex-situ conservation: No

## Research Needed

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

<b>Research Needed</b>
1. Research -> 1.1. Taxonomy
1. Research -> 1.2. Population size, distribution & trends
3. Monitoring -> 3.1. Population trends

## Additional Data Fields

<b>Distribution</b>
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 4
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 4
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): 500
Upper elevation limit (m): 700
<b>Population</b>
Continuing decline of mature individuals: No
Extreme fluctuations: No
Population severely fragmented: No
No. of subpopulations: 1
Extreme fluctuations in subpopulations: No
<b>Habitats and Ecology</b>
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 0

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