

Inclusion of *Operculicarya decaryi* in Appendix II

Proponent: Madagascar

Summary: *Operculicarya decaryi*, sometimes known as jabily, is a deciduous thick-stemmed (pachycaul) tree endemic to Madagascar which can grow up to nine metres tall. It is one of eight species in the genus *Operculicarya*, seven of which are endemic to Madagascar, with the eighth (*O. gummifera*) occurring in Madagascar and the Comoros. It is widespread in thorny scrub and degraded semi-deciduous forest at low altitudes in southern Madagascar, with an extent of occurrence variously estimated at 50 000 or 70 000 km² and an area of occupancy of 3000 km² (300 000 ha) or 8500 km² (850 000 ha). Around 30 subpopulations are known. It can be locally abundant, with an estimate of over 30 000 individuals in one subpopulation, and densities of 220–400 individuals per hectare in sample sites. Regeneration, at least in some areas, appears to be good.

The species has a bonsai-like appearance and is in cultivation, mostly grown by hobbyists who specialize in succulent plants. Exports from Madagascar are reportedly mainly of small plants. Recorded exports show a rising trend, from 56 plants in 2003 to just under 2700 in 2006. At least some, possibly all, of these would have been wild-collected plants.

The species is apparently straightforward to propagate from stem or root cuttings, less easy from seed, which may show low viability. Plants are relatively widely available internationally. Most are of moderate price (EUR12–40 in Europe, USD 25–120 in the USA) and are stated to be artificially propagated, although occasionally larger, much more expensive plants (up to USD500) are offered, which are almost certainly of wild origin.

Two other species of *Operculicarya*, *O. hyphaenoides* and *O. pachypus*, have been proposed for inclusion in Appendix II at CoP15 (see proposals Prop. 23 and Prop. 24).

Analysis: *Operculicarya decaryi* is a relatively widespread and common plant in Madagascar. Available information on its extent of occurrence and known population densities indicates that the wild population may well be very large. It is in trade for horticulture, but mainly as small plants and can reportedly be easily propagated. There is no known intensive or extensive harvest for domestic use within Madagascar. It seems very unlikely that harvest for trade is reducing the species to a level at which it might become eligible for inclusion in Appendix I in the near future, or that such regulation is needed to ensure that harvest from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

The species does resemble other *Operculicarya* and particularly one of the two other species proposed for inclusion in Appendix II at the present meeting of the Conference of the Parties (*O. pachypus*). It is conceivable that, were the latter to be included in Appendix II, inclusion of *O. decaryi* might help regulate trade in it (although several other similar species of *Operculicarya*, at least some of which may be in trade would remain outside the Convention).

Supporting Statement (SS)	Additional information
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Taxonomy

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Supporting Statement (SS)	Additional information
<p>Madagascar</p>	<p><u>Range</u></p> <p> </p> <p><u>IUCN Global Category</u></p> <p> </p> <p>Not assessed.</p>

Biological and trade criteria for inclusion in Appendix II (Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a)

A) Trade regulation needed to prevent future inclusion in Appendix I

Operculicarya decaryi has a wide distribution in Tuléar province, from Tongobory Betioky to Amboasary Sud. Around 440 individuals were counted at Tongobory in 2006; other sites have around the same number of individuals.

The species is highly sought-after as a “bonsai”-type plant, both nationally and internationally. Trade has been increasing recently, with exports reported by the Malagasy CITES Management Authority as: 56 in 2003, 200 in 2004, 495 in 2005 and 2647 in 2006. Exports are in the form of small plants.

Operculicarya decaryi is regarded as meeting the criteria for vulnerable under the IUCN Red List categories and criteria.

Rakouth et al. (2006) calculate its area of occurrence at around 50 000 km² and its area of occupancy at around 8500 km. At least 13 different sub-populations have been identified.

Randrianosolo and Lowry (2006) give an extent of occurrence of around 72 000 km² and area of occupancy of around 3000 km² in around 30 sub-populations. They consider it would be classified as least concern under the IUCN Red List categories and criteria.

The species occurs in open xerophytic scrub and degraded semi-deciduous forest at low altitudes. Densities of 220–400 per ha have been found at study sites, with one sub-population calculated to comprise over 30 000 individuals. The species generally shows good regeneration (calculated by the ratio of juvenile plants to seed-bearing plants in sample plots) (Rakouth et al., 2006).

B) Regulation of trade required to ensure that harvest from the wild is not reducing population to level where survival might be threatened by continued harvest or other influences

Inclusion in Appendix II to improve control of other listed species

Supporting Statement (SS)	Additional information
<p><u>A) Specimens in trade resemble those of species listed in Appendix II under Resolution Conf. 9.24 (Rev. CoP14) Annex 2 a or listed in Appendix I</u></p> <p><u>B) Compelling other reasons to ensure that effective control of trade in currently listed species is achieved</u></p>	<p><i>The species closely resembles and is often confused with Operculicarya pachypus, also proposed at CoP15 for inclusion in Appendix II (see proposal Prop. 24).</i></p>

Other information
Threats

Fire; some populations have been affected by quarrying (Rakouth et al., 2006).

Conservation, management and legislation**Captive breeding/artificial propagation**

The species is reportedly easily propagated from stem cuttings or from pieces of the tuberous root. Seeds are reportedly often unreliable (Desert tropicals website).

Other comments**Reviewers:**

TRAFFIC East/Southern Africa

References:

Rakouth, B., Ravaomanalina, H. and Rakotonavalona, A. (2006). Etude biogéographique et bioécologique de quelques espèces menacées dans le Sud de Madagascar dans le cadre de la CITES pour l'année 2005. Rapport final. Conservation International Madagascar.

Randrianosolo, A. and Lowry, P.P. (2006). *Operculicarya* (Anacardiaceae) revisited: an updated taxonomic treatment for Madagascar and the Comoro Islands, with descriptions of two new species. *Adansonia*, 28 (2): 359–371.