CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

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Twenty-first meeting of the Plants Committee
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Interpretation and implementation of the Convention

Periodic Review of species included in Appendices I and II [Resolution Conf. 14.8 (Rev. CoP16)]

Species under review

PERIODIC REVIEW OF *PACHYPODIUM BREVICAULE*

1. This document has been prepared by Madagascar.*

I. General information on *Pachypodium brevicaule*

Pachypodium brevicaule (APOCYNACEAE) is an endemic Malagasy species that is known locally by several names such as tsimondrimondry, kimondromondro, kimonoina, or sakamalaombato. It is a dwarf plant, with a smooth, tuberous trunk, and grows in rock crevices, or in sandy soil. It can reach a height of 25 cm; the diameter of mature plants is between 10 and 40 cm. Extremely short branches, which are covered in soft thorns 1–4 cm long. Alternate phyllotaxy, deciduous leaves, at base of branches, ovate or obovate, acuminate or obtuse at apex, and slightly rounded at base (Figure 2). Sessile inflorescence, producing 1–7 yellow flowers; long, fuzzy peduncle 0.5–7 cm; pedicels are shorter than bracteas, measuring 0–3 mm. Sepals acute, green, covering the base of the floral tube, 3–5.5 mm length. Hypocrateriform corolla, hairy outside, cylindrical, elongated vertex. Stamens inserted into tube, anthers approximately 5 mm long; extremely oval, rounded lobes. Bristly ovary, protruding slightly from disk scales. Straight, parallel seed pods, containing an abundance of seeds—sometimes, more than 50 seeds. Oblong, glabrous, pappus-bearing seeds (Figure 1).

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

Figure 1: Adult specimen of *Pachypodium brevicaule* at the Ibity site in the central highlands of Madagascar

II. Species range

The species *P. brevicaule,* is only found in high plateau regions, at altitudes above 1200 m, in the vicinity of Antananarivo, as far as Andramasina and Ambatofinandrahana. Estimated extent of occurrence: approximately 1001 km^2; range of occurrence: 1780 km^2 (Rakotoarivelo, 2006). An estimate by the Scientific Plants Authority in September 2013 using more recent data shows the extent of occurrence to be 3200 km^2, and range of occurrence 9489 km^2 (Figure 2).

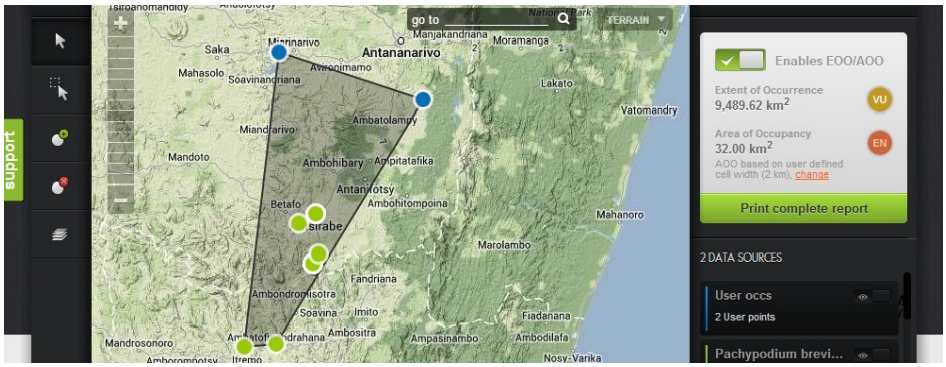

Figure 2: Range of occurrence and extent of occurrence of *Pachypodium brevicaule* as shown by GEOCAT®.

III. Trade data summary

Exported specimens are living, wild plants larger than 15 cm. The main countries importing *Pachypodium brevicaule* are Germany, China, South Korea, Spain, United States, France, Japan, Mexico, and the Czech Republic.

The evolution of the export volume of *Pachypodium brevicaule* between 2000 and 2012 shows an average of 800 specimens per year, reaching a maximum of 1814 specimens in 2004 (Table 1).

Table 1: Evolution of the number of specimens of *Pachypodium brevicaule* exported between 2000 and 2012 (Source: CITES Management Authority, Madagascar)

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of specimens Exported	207	490	0	505	1 814	1 279	1 628	653	1499	110	850	619	967

IV. Conservation status and threats

Pachypodium brevicaule was transferred from Appendix I to Appendix II in 1994 at CoP9 (Fort Lauderdale).

Pachypodium brevicaule is classified as vulnerable (VU, B1a, and B1b iii), according to IUCN criteria (version 3.1, 2001)

The subpopulations of *P. brevicaule* have been under intense pressure for several decades, especially from human activities; the main causes of the gradual disappearance of the species are savannah fires, zebu grazing, trampling, cutting, and uncontrolled, detrimental exploitation (Randrianandrasana, 2010)

V. Conservation of the species

Illegally obtained *Pachypodium brevicaule* is one of the succulent species that are subject to significant levels of trade.

a) In situ conservation

The protected area at the Ibity massif is home to some flourishing subpopulations of *Pachypodium brevicaule*. This is considered to be an important area for plant conservation at a world level, and particularly for conserving regional diversity.

b) Ex situ conservation

Ex situ conservation ensures rational use of the species. There are currently three establishments actively engaged in ex situ propagation and conservation of *Pachypodium brevicaule*. The Scientific Authority carries out annual monitoring of plant stocks in order to register how many plants are artificially propagated in these establishments. Registered stocks of *Pachypodium brevicaule* amount to 1.137 plants (Source: CITES Permanent Secretariat for Plants, Madagascar, (as of year end 2012)).

VI. Conclusion and recommendation

Until now, despite the enactment of local, domestic, and international regulations, the uncontrolled use of *Pachypodium brevicaule* has led to increasing degradation of the natural ecosystems. Further, It should be noted that the majority of subpopulations of *Pachypodium brevicaule* are still outside protected areas.

An export quota has yet to be set for *Pachypodium brevicaule*. The data obtained will be useful in determining the correct listing of this species in the CITES Appendices.

References

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