

Madagascar Significant Trade – Plants Report for CITES Secretariat

RBG Kew (July 2003)
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Introduction

The objective of this project was two fold:

- To carry out an analysis of trade in plant species from Madagascar in order to assist the CITES Management and Scientific authorities of Madagascar.
- To provide recommendations on the sustainable trade in wild-collected plants and on the commercial propagation of species with horticultural interest or those used for their derivatives.

This project was carried out on the basis of an overview of trends in trade of Appendix II plant species from Madagascar, previous actions of the CITES authorities of Madagascar, recommendations of the Plants and Standing Committees, current concerns about compliance with the provisions of Article IV paragraphs 2a) and 3, institutional and administrative arrangements related to implementation of Article IV for exports of Appendix II species, and the close effectiveness of relevant national legislation and its implementation.

The role of the Royal Botanic Gardens, Kew.

Complete a desktop survey to:

- Review the trade data available in the CITES database held at the World Conservation Monitoring Centre (WCMC-UNEP), regarding species occurring in Madagascar and on the trade to and from Madagascar.
- Collect information on cultivation.
- Assess conservation status.
- Identify key species.

A database was built to hold data from the desktop survey, on taxa recorded in the CITES trade data (held by UNEP-WCMC) reported as exported or imported from Madagascar. Taxa not found in the CITES trade data but considered to be in trade according to an expert panel have also been included.

The following information on each taxon has been gathered and added to the database:

- Taxonomy including traded names, synonyms, author, publication)
- CITES trade data
- Madagascar and global distribution
- Habitat
- IUCN conservation status
- Previous recommendations of the plants committee
- Availability on the Internet
- Whether recorded CITES trade data is a true reflection of trade
- Whether trade affects conservation status
- Current conservation status
- Declines in conservation status
- Information on illegal trade
- Whether the taxa is cultivated in Madagascar / internationally
- Whether the taxa is artificially propagated in Madagascar / internationally
- Ease of propagation
- Availability in catalogues / nurseries
- Any additional relevant information

Summary report

This report is a summary of the desktop survey carried above and was the basis of a presentation by Andrew Newman at the Madagascar Significant Trade Stakeholders Workshop 26-28 May 2003 held in the Madagascar Hilton in Antananarivo, Madagascar.

Part 1 – CITES trade database Trade Analysis

[Please note: the following analysis does not include *Prunus africana*]

Figure 1 Number of individual species traded from Madagascar per year 1992-2001

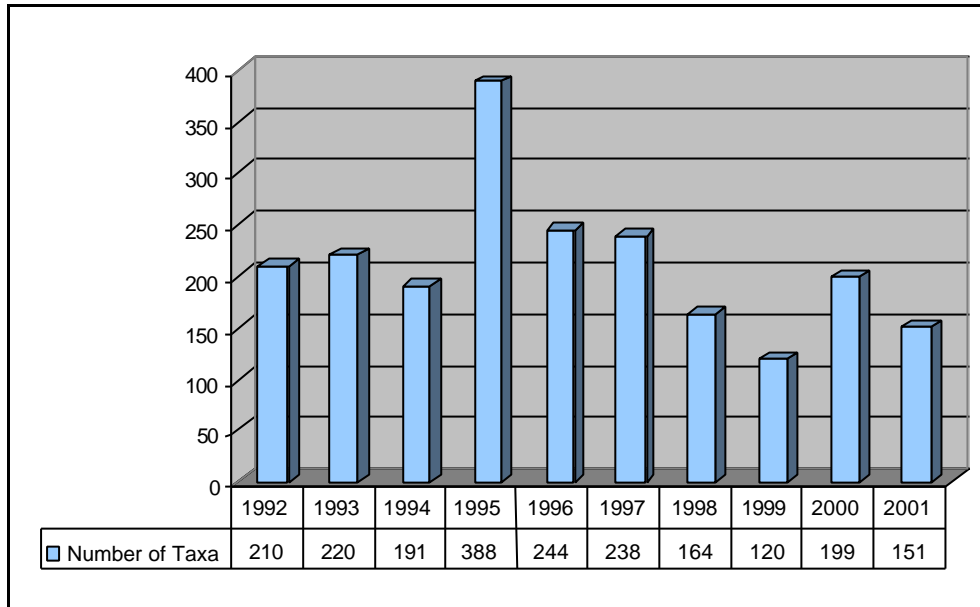


Figure 2 Total volume of plant species traded from Madagascar 1992-2001

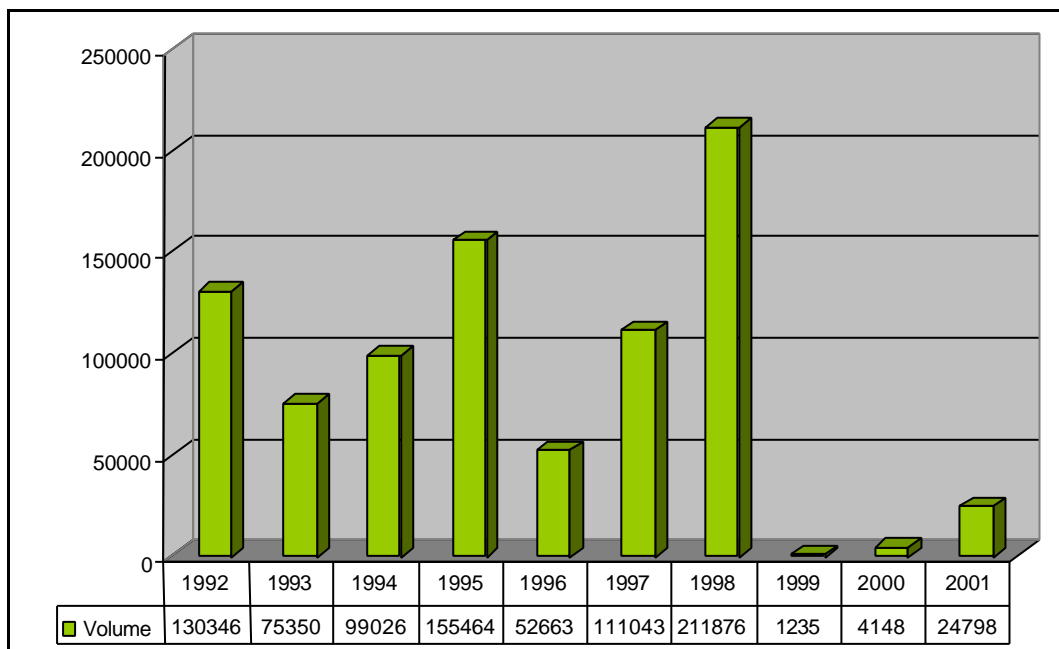
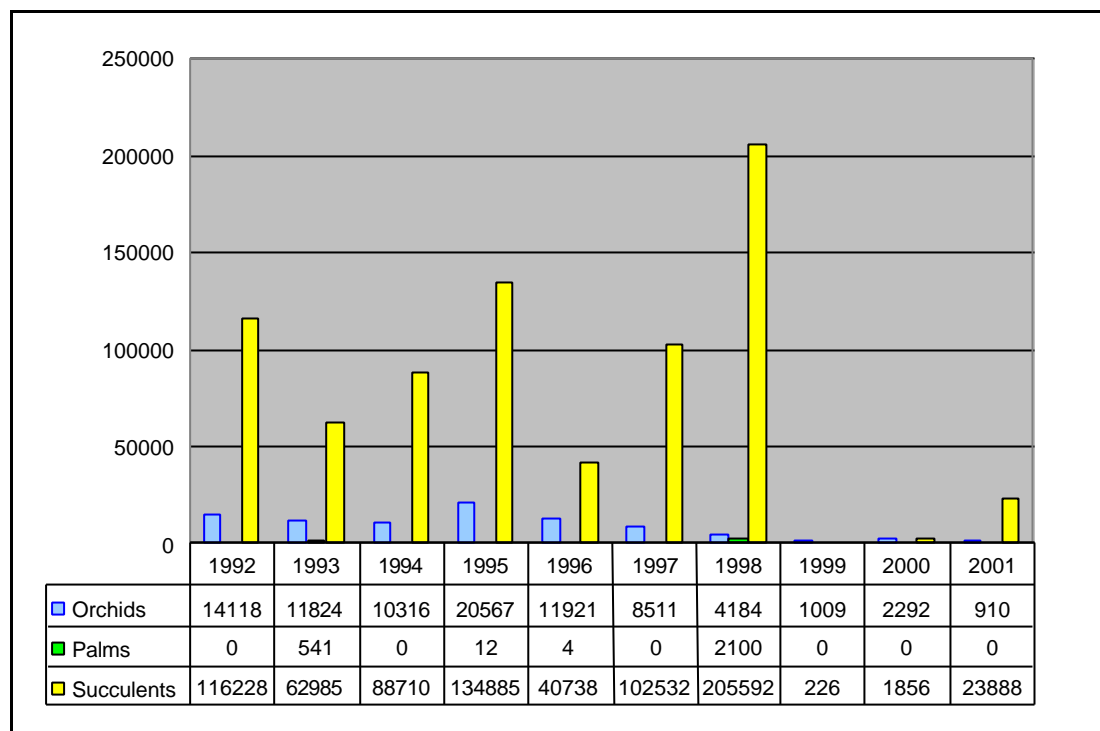


Figure 3 Total volume of plant species traded: Orchids, Palm and Succulents 1992-2001



Ten highest traded genera for Orchids, Palm and Succulents 1992-2001.

Orchids	Volume	Palms	Volume	Succulents	Volume
Aerangis	27,404	Dypsis	2,657	Euphorbia	75,8294
Angraecum	22,214			Alluaudia	8,451
Gastrorchis	6,315			Pachypodium	4,947
Aeranthes	6,293			Aloe	3,444
Jumellea	4,297			Didierea	1,460
Neobathiea	3,900			Cycas	842
Calanthe	2,455			Alluaudiopsis	100
Sobennikoffia	1,600			Nepenthes	31
Cymbidiella	1,593			Ceropegia	26
Grammangis	1,318			Cyathea	16

Figure 4 Total trade from Madagascar, reported by Madagascar and Importing countries 1992-2001.

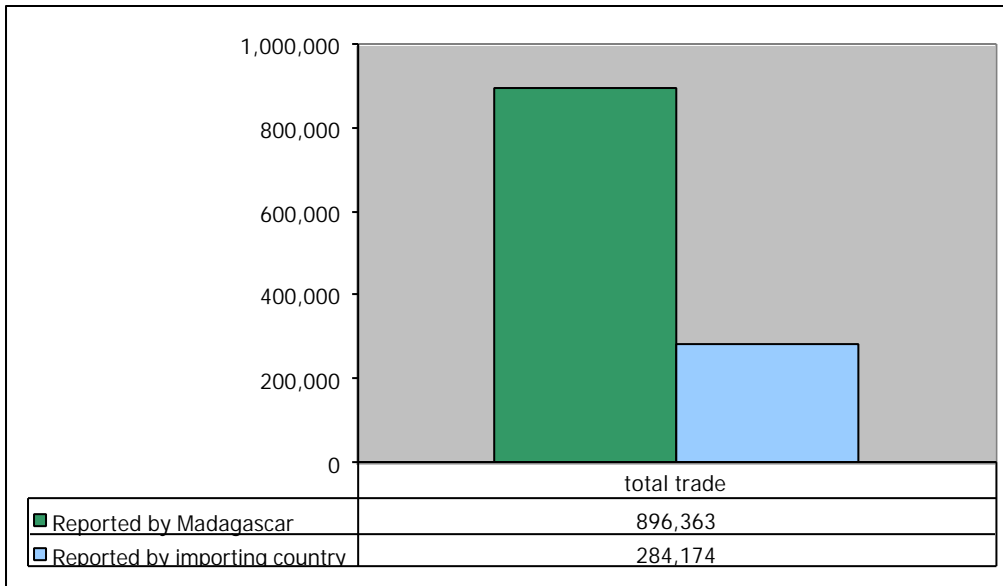


Figure 5 Recorded taxonomic level of trade from Madagascar, reported by Madagascar and Importing countries 1992-2001.

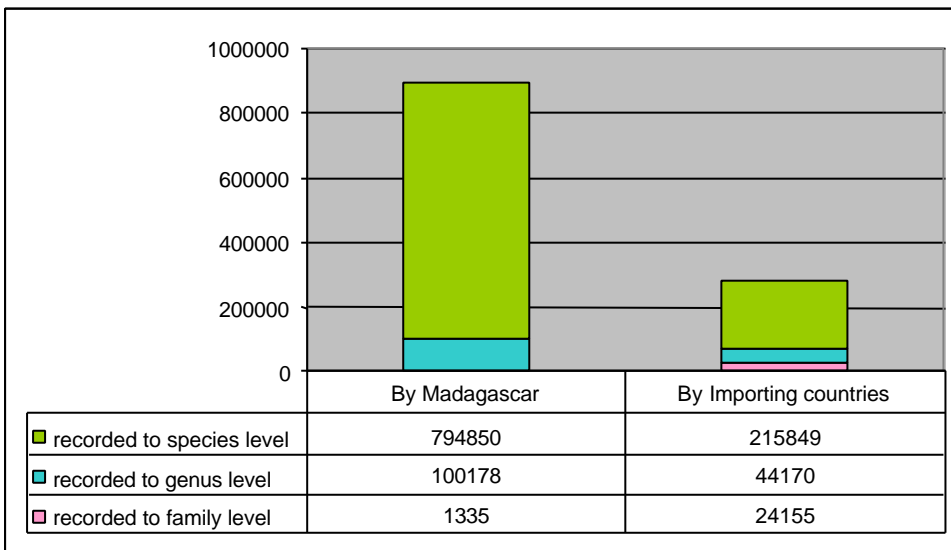
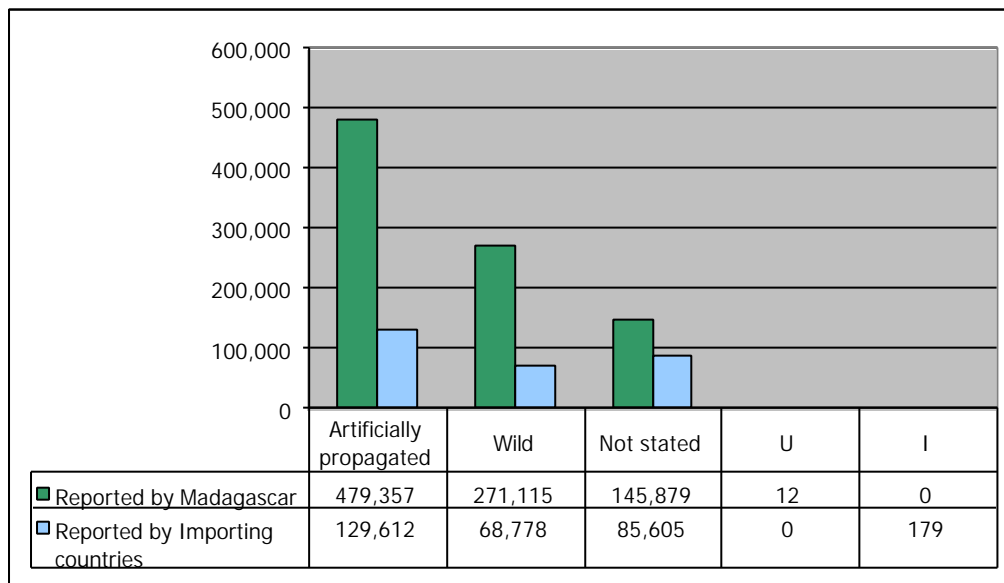


Figure 6 Source of Plants traded from Madagascar, reported by Madagascar and Importing countries 1992-2001.



5 highest traded plants by volume (reported by Madagascar) reported as 'Artificially Propagated':

- Euphorbia lophogona (356,805)
- Euphorbia geroldii (29,000)
- Euphorbia spp. (27,363)
- Euphorbia viguieri (18,750)
- Euphorbia millotii (16,250)

5 highest traded plants by volume (reported by Madagascar) reported as 'Wild':

- Euphorbia lophogona (76,083)
- Euphorbia spp. (41,782)
- Euphorbia millotii (11,290)
- Euphorbia viguieri (10,240)
- Euphorbia milii (6,706)

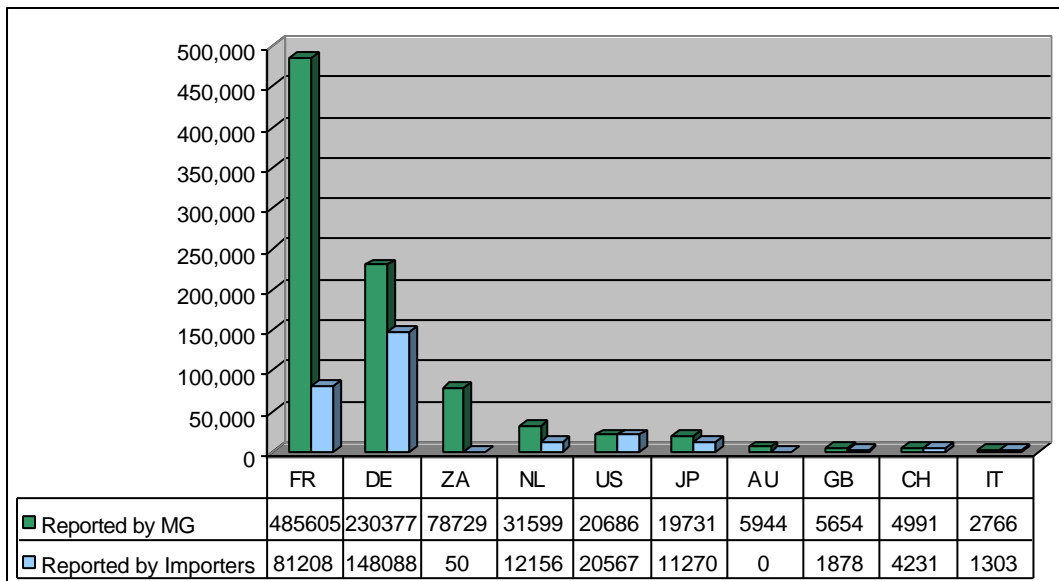
5 highest traded plants by volume (reported by Madagascar) reported as 'Undisclosed':

- Cymbidium spp. (6)
- Dendrobium spp. (4)
- Cattleya spp. (1)
- Vanda spp. (1)

5 highest traded plants by volume (reported by Madagascar) reported as '[blank]':

- Euphorbia lophogona (102,017)
- Euphorbia spp. (13,668)
- Euphorbia millotii (8,440)
- Euphorbia viguieri (3,508)
- Aearngis citrata (1,366)
- Angraecum scottianum (403)

Figure 7 10 highest countries trading with Madagascar according to volume of trade reported by Madagascar



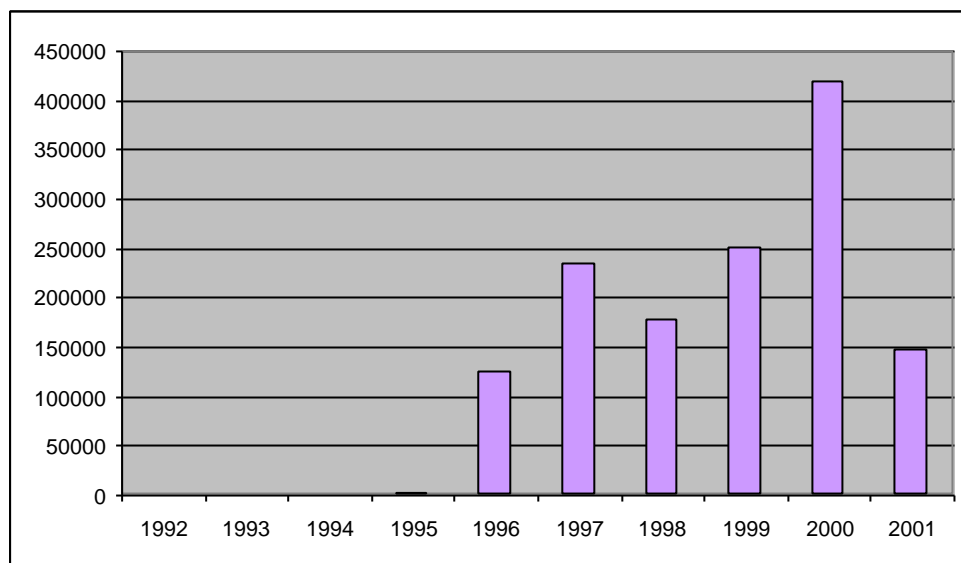
Quotas.

There have been no quotas applied to Malagasy plants.

The changes in trade patterns in response to previous recommendations pursuant to Resolution Conf 8.9.

There have been no recommendations in pursuant to Resolution Conf 8.9.

Prunus africana Volume of trade 1992-2001



Net exports of Prunus africana 1992 - 2001

TERM	UNIT	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
bark		0	0	0	0	0	16020	0	0	0	0
bark	g	0	0	0	0	0	0	0	0	0	20
bark	kg	0	0	0	0	122000	168426	95011	233484	224260	144180
chips	g	0	0	0	0	0	0	0	0	0	250
dried plants	kg	0	0	0	0	0	0	0	0	8	0
extract	g	0	0	0	0	0	0	0	700	0	0
extract	kg	0	0	0	2269	4581	51176	82619	18034	195319	2200
leaves	g	0	0	0	0	0	0	0	0	0	170
roots	kg	0	0	0	0	0	0	0	0	1	0
specimens	g	0	0	0	0	0	0	0	0	0	650
timber	g	0	0	0	0	0	0	0	0	0	400

Part 2 – Cultivation

Nurseries within Madagascar.

According to an expert panel:

- 179 taxa are cultivated in Madagascar.
- 54 taxa are artificially propagated, 25 by division.

Nurseries outside Madagascar.

According to an expert panel:

- 153 Malagasy taxa are cultivated.
- 69 Malagasy taxa are be artificially propagated.

Part 3 – Conservation status

a) IUCN Conservation status

Summary:

- Of the taxa identified in trade in Parts 1 and 2, 33 taxa were listed in the 1997 Plant Red List.

Table 9 IUCN Conservation status of Malagasy taxa (1997 Plant Red List).

taxon	Family	IUCN country ratings 1997	Conservation status (according to expert panel)
<i>Aerangis decaryana</i>	Orchidaceae	Endangered	Endangered
<i>Aloe bellatula</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe calcairophila</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe compressa</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe compressa var. schistophila</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe cremersii</i>	Aloaceae	Endangered	Data Deficient
<i>Aloe descoingsii</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe helenae</i>	Aloaceae	Endangered	Endangered
<i>Aloe parallelifolia</i>	Aloaceae	Endangered	Critically Endangered
<i>Aloe parvula</i>	Aloaceae	Endangered	Endangered
<i>Aloe suzannae</i>	Aloaceae	Endangered	Critically Endangered
<i>Ceropegia armandii</i>	Asclepiadaceae	Endangered	Critically Endangered
<i>Ceropegia bosseri</i>	Asclepiadaceae	Endangered	Critically Endangered
<i>Ceropegia razafindratsirana</i>	Asclepiadaceae	Endangered	Critically Endangered
<i>Cyathea borbonica</i>	Cyatheaceae	Intermediate	?
<i>Cyathea decrescens</i>	Cyatheaceae	Intermediate	?
<i>Dypsis decipiens</i>	Palmae	Endangered	Endangered
<i>Euphorbia ambovombensis</i>	Euphorbiaceae	Endangered	Endangered
<i>Euphorbia ankarensis</i>	Euphorbiaceae	Intermediate	Least concern
<i>Euphorbia capsaintemariensis</i>	Euphorbiaceae	Intermediate	Endangered
<i>Euphorbia cylindrifolia</i>	Euphorbiaceae	Intermediate	Endangered
<i>Euphorbia decaryi</i>	Euphorbiaceae	Intermediate	Endangered
<i>Euphorbia didiereoides</i>	Euphorbiaceae	Intermediate	Least concern
<i>Euphorbia millotii</i>	Euphorbiaceae	Intermediate	Endangered
<i>Euphorbia pachypodioides</i>	Euphorbiaceae	Intermediate	Vulnerable
<i>Euphorbia perrieri var. elongata</i>	Euphorbiaceae	Intermediate	Data Deficient
<i>Euphorbia primulifolia</i>	Euphorbiaceae	Intermediate	Least concern
<i>Pachypodium ambongense</i>	Apocynaceae	Endangered	Endangered
<i>Pachypodium decaryi</i>	Apocynaceae	Endangered	Endangered / Vulnerable
<i>Aeranthus arachnites</i>	Orchidaceae	Endangered	NOT NATIVE TO MADGASCAR
<i>Aloe squarrosa</i>	Aloaceae	Endangered	NOT NATIVE TO MADGASCAR
<i>Eulophia obtusa</i>	Orchidaceae	Intermediate	NOT NATIVE TO MADGASCAR
<i>Euphorbia cussonioides</i>	Euphorbiaceae	Endangered	NOT NATIVE TO MADGASCAR
<i>Euphorbia jansenvillensis</i>	Euphorbiaceae	Endangered	NOT NATIVE TO MADGASCAR

b) Preliminary conservation status

Figure 14 Conservation status of Malagasy plants in trade (according to expert panel).

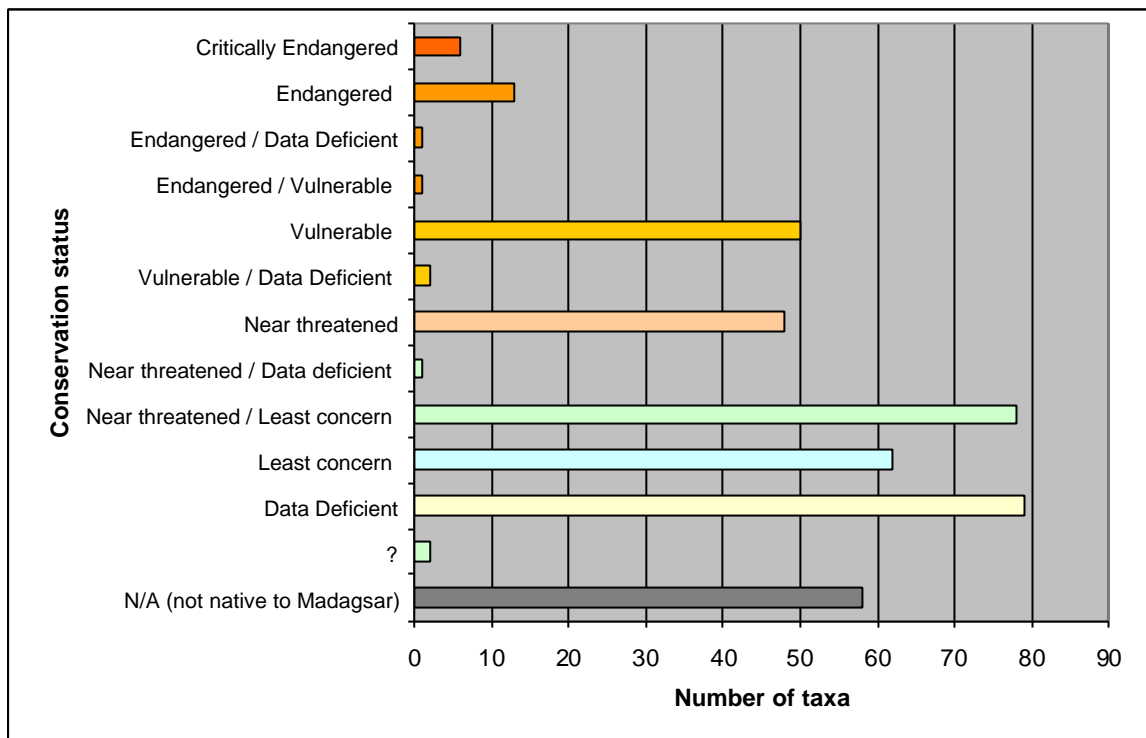


Table 10 Conservation status of Malagasy plant taxa (according to expert panel).

Conservation status	Number of taxa
Critically Endangered	6
Endangered	13
Endangered / Data Deficient	1
Endangered / Vulnerable	1
Vulnerable	50
Vulnerable / Data Deficient	2
Near threatened	48
Near threatened / Data deficient	1
Near threatened / Least concern	78
Least concern	62
Data Deficient [13]	79
Unknown	2
Not native	58

Table 11 Taxa that are Critically Endangered or Endangered (according to expert panel).

taxon	Family	Expert conservation status	Does trade affect conservation status	Is this a true reflection of trade	Total trade data 1989-1999
<i>Aerangis decaryana</i>	Orchidaceae	Endangered	Yes	Yes	1525
<i>Aerangis spiculata</i>	Orchidaceae	Endangered	Yes	Yes	242
<i>Aeranthus henrici</i>	Orchidaceae	Endangered	Yes	Yes	4208
<i>Aloe albiflora</i>	Aloaceae	Critically Endangered	?	?	
<i>Aloe bakeri</i>	Aloaceae	Critically Endangered	Yes	Yes	42
<i>Aloe bellatula</i>	Aloaceae	Critically Endangered	Yes	Yes	18
<i>Aloe calcairophila</i>	Aloaceae	Critically Endangered	Yes	Yes	237
<i>Aloe compressa</i>	Aloaceae	Critically Endangered	Yes	No, more	80
<i>Aloe compressa</i> var. <i>rugosquamosa</i>	Aloaceae	Critically Endangered	?	?	
<i>Aloe compressa</i> var. <i>schistophila</i>	Aloaceae	Critically Endangered	Yes	No, more	35
<i>Aloe descoingsii</i>	Aloaceae	Critically Endangered	Yes	Yes	309
<i>Aloe descoingsii</i> ssp. <i>augustina</i>	Aloaceae	Critically Endangered	Yes	Yes	
<i>Aloe fragilis</i>	Aloaceae	Critically Endangered	Yes	No	47
<i>Aloe haworthioides</i>	Aloaceae	Endangered	Yes	Yes	46
<i>Aloe helenae</i>	Aloaceae	Endangered	Yes	Yes	6
<i>Aloe isaloensis</i>	Aloaceae	Endangered / Data Deficient	No	Yes	129
<i>Aloe parallelifolia</i>	Aloaceae	Critically Endangered	Yes	Yes	70
<i>Aloe parvula</i>	Aloaceae	Endangered	Yes	Yes	92
<i>Aloe rauhii</i>	Aloaceae	Critically Endangered	Yes	Yes	55
<i>Aloe suzannae</i>	Aloaceae	Critically Endangered	Yes	Yes	215
<i>Angraecum bicallosum</i>	Orchidaceae	Endangered / Vulnerable	?	?	994
<i>Angraecum eburneum</i> ssp. <i>superbum</i> var. <i>longicalcar</i>	Orchidaceae	Critically Endangered	Yes	Yes	195
<i>Angraecum leonis</i>	Orchidaceae	Endangered	Yes	Yes	1819
<i>Angraecum magdalenae</i>	Orchidaceae	Endangered	Yes	Yes	2343
<i>Angraecum praestans</i>	Orchidaceae	Endangered	Yes	Yes	681
<i>Angraecum protensum</i>	Orchidaceae	Endangered	Yes	Yes	1363
<i>Ceropegia armandii</i>	Asclepiadaceae	Critically Endangered	No	Yes	6
<i>Ceropegia bosseri</i>	Asclepiadaceae	Critically Endangered	No	Yes	1
<i>Ceropegia dimorpha</i>	Asclepiadaceae	Critically Endangered	No	Yes	161
<i>Ceropegia razafindratsirana</i>	Asclepiadaceae	Critically Endangered	No	?	5
<i>Cryptopus dissectus</i>	Orchidaceae	Endangered			
<i>Cymbidiella pardalina</i>	Orchidaceae	Critically Endangered	Yes	Yes	1108
<i>Dypsis decipiens</i>	Palmae	Endangered	?	?	5
<i>Eulophia palmicola</i>	Orchidaceae	Critically Endangered	Yes	Yes	17
<i>Eulophia pulchra</i>	Orchidaceae	Endangered	Yes	No	19
<i>Eulophiella elisabethae</i>	Orchidaceae	Endangered	Yes	Yes	410
<i>Eulophiella roempleriana</i>	Orchidaceae	Critically Endangered	Yes	Yes	335
<i>Euphorbia ambovombensis</i>	Euphorbiaceae	Endangered	Yes	Yes	6
<i>Euphorbia bulbispina</i>	Euphorbiaceae	Critically Endangered	?	?	52
<i>Euphorbia capmanambatoensis</i>	Euphorbiaceae	Endangered	No	Yes	2017
<i>Euphorbia capsaintemariensis</i>	Euphorbiaceae	Endangered	Yes	Yes	237
<i>Euphorbia cremersii</i>	Euphorbiaceae	Endangered / Vulnerable	Yes	Yes	881
<i>Euphorbia cylindrifolia</i>	Euphorbiaceae	Endangered	Yes	Yes	52
<i>Euphorbia decaryi</i>	Euphorbiaceae	Endangered	Yes	Yes	2568
<i>Euphorbia decaryi</i> var. <i>ampanihyensis</i>	Euphorbiaceae	Endangered	?	?	0
<i>Euphorbia decaryi</i> var. <i>robinsonii</i>	Euphorbiaceae	Endangered	?	?	0
<i>Euphorbia decaryi</i> var. <i>spirosticha</i>	Euphorbiaceae	Endangered	?	?	0
<i>Euphorbia enterophora</i>	Euphorbiaceae	Endangered	No	Yes	23
<i>Euphorbia enterophora</i> ssp. <i>crassa</i>	Euphorbiaceae	Endangered	No	Yes	
<i>Euphorbia francoisii</i>	Euphorbiaceae	Endangered	Yes	Yes	382
<i>Euphorbia guillauminiana</i>	Euphorbiaceae	Endangered	No	Yes	2258
<i>Euphorbia herman-schwartzii</i>	Euphorbiaceae	Endangered	Yes	Yes	7
<i>Euphorbia millotii</i>	Euphorbiaceae	Endangered	Yes	Yes	39645
<i>Euphorbia parvicyathophora</i>	Euphorbiaceae	Critically endangered / Possibly extinct in the wild	Yes	Yes	2
<i>Euphorbia quartziticola</i>	Euphorbiaceae	Endangered / Vulnerable	Yes	Yes	538
<i>Euphorbia tulearensis</i>	Euphorbiaceae	Endangered	Yes	Yes	36

Gastrorchis pulchra	Orchidaceae	Endangered	Yes	Yes	56
Gastrorchis pulchra var. perrieri	Orchidaceae	Endangered			
Gastrorchis tuberculatus	Orchidaceae	Endangered	Yes	Yes	813
Grammangis ellisii	Orchidaceae	Critically Endangered	Yes	Yes	1529
Grammangis spectabilis	Orchidaceae	Critically Endangered	Yes	Yes	62
Oeonia madagascariensis	Orchidaceae	Endangered / Data Deficient	Yes	No	2
Pachypodium ambongense	Apocynaceae	Endangered	Yes	Yes	524
Pachypodium baronii var. windsorii	Apocynaceae	Endangered	?	?	
Pachypodium decaryi	Apocynaceae	Endangered / Vulnerable	Yes	Yes	581
Pachypodium rosulatum var. eburneum	Apocynaceae	Endangered			
Pachypodium rosulatum var. inopinatum	Apocynaceae	Endangered			