

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



Twenty-first meeting of the Plants Committee  
Veracruz (Mexico), 2-8 May 2014

Interpretation and implementation of the Convention

Compliance and enforcement

Review of Significant Trade in specimens of Appendix-II species [Resolution Conf. 12.8 (Rev. CoP13)]

SELECTION OF SPECIES FOR TRADE REVIEWS FOLLOWING COP16

1. This document has been prepared by the Secretariat.
2. In Resolution Conf. 12.8 (Rev. CoP13) on *Review of Significant Trade in specimens of Appendix-II species*, in the first operative paragraph, the Conference of the Parties:

*DIRECTS the Animals and Plants Committees, in cooperation with the Secretariat and experts, and in consultation with range States, to review the biological, trade and other relevant information on Appendix-II species subject to significant levels of trade, to identify problems and solutions concerning the implementation of Article IV, paragraphs 2 (a), 3 and 6 (a)..*
3. In accordance with paragraph a) of that Resolution under *Regarding conduct of the Review of Significant Trade*, the Secretariat requested UNEP-WCMC to produce a summary from the CITES Trade Database of annual report statistics showing the recorded net level of exports for Appendix-II species over the five most recent years for which reasonably complete data are available (2008-2013). The report of UNEP-WCMC is attached as Annex 1 (English only) to the present document. The raw data used to prepare this summary are available in document PC21 Inf.2.
4. Also in Resolution Conf. 12.8 (Rev. CoP13), under paragraph b) of the section entitled 'Selection of species to be reviewed', the Conference of the Parties directs the Plants Committee, on the basis of recorded trade levels and information available to it, the Secretariat, Parties or other relevant experts, to select species of priority concern for review (whether or not such species have been the subject of a previous review).
5. In order to assist the Plants Committee with this selection, and based on a similar analysis undertaken for the Animals Committee in 2008, UNEP-WCMC has developed a process to identify candidate species for review. The process is based on an extended analysis of trade and is described in Annex 2 to the present document (English only). That Annex also contains a summary of the extended trade analysis and a list of possible candidate species thus identified.
6. The Committee is invited to select species of priority concern for review.

## Recorded Net Exports of Appendix-II Flora 2007-2011

To comply with the specifications of Resolution Conf. 12.8 (Rev. CoP13), an initial data output was produced comprising net exports of Appendix-II species over the most recent five year period for which near-complete data is available (2007-2011). Data from 2012 were excluded because at the time of the data extraction (2 December 2013), only 40% of annual reports had been received (72 out of the 180 Parties to CITES); however, 2012 data can be viewed within the dataset provided in PC21 Inf. 2. This output only contains direct trade reported as wild-collected ('W'), ranched ('R'), unknown ('U') or without a source reported. A full list of terms traded is available in the CITES Trade Database interpretation guide, see: [www.unep-wcmc-apps.org/citestrade/docs/EN-CITES\\_Trade\\_Database\\_Guide.pdf](http://www.unep-wcmc-apps.org/citestrade/docs/EN-CITES_Trade_Database_Guide.pdf). Terms traded at levels averaging less than one item over the five year period have been excluded from the output. Quantities recorded have been rounded to the nearest decimal place, when applicable.

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<b>AMARYLLIDACEAE</b>								
<i>Galanthus alpinus</i>	ROO		20			16		7.2
<i>Galanthus alpinus</i> var. <i>alpinus</i>	ROO					44		8.8
<i>Galanthus elwesii</i>	LIV		5700000	5104120	2912615	4235840	5250000	4640515
<i>Galanthus elwesii</i>	ROO				5600000		4329975	1985995
<i>Galanthus kemulariae</i>	ROO					37		7.4
<i>Galanthus ketzhovellii</i>	ROO					27		5.4
<i>Galanthus krasnovii</i>	ROO					20		4
<i>Galanthus lagodechianus</i>	ROO		10			50		12
<i>Galanthus platyphyllus</i>	ROO					13		2.6
<i>Galanthus rizehensis</i>	ROO					24		4.8
<i>Galanthus schaoricus</i>	ROO					26		5.2
<i>Galanthus woronowii</i>	LIV		2000000	16817942	7920920	10106242	3000000	7969020.8
<i>Galanthus woronowii</i>	ROO		15000020		17999195	55	15000000	9599854
<b>ANACARDIACEAE</b>								
<i>Operculicarya hyphaenoides</i>	LIV						275	55
<i>Operculicarya pachypus</i>	LIV					100	256	71.2
<b>APOCYNACEAE</b>								
<i>Apocynaceae</i> spp.	DPL					6		1.2
<i>Hoodia gordonii</i>	DER	flasks	6	12				3.6
<i>Hoodia gordonii</i>	DER	kg	66.1	298.8	66.1	67.8	1941.1	488
<i>Hoodia gordonii</i>	DER	l				25		5
<i>Hoodia gordonii</i>	DER		360			150		102
<i>Hoodia gordonii</i>	DPL	kg	454	30030.8				6097
<i>Hoodia gordonii</i>	EXT	kg	140	250	0	21.8	60	94.4
<i>Hoodia gordonii</i>	EXT	l				5	2	1.4
<i>Hoodia gordonii</i>	EXT						300	60
<i>Hoodia gordonii</i>	LIV		5					1
<i>Hoodia gordonii</i>	LVS	kg	30			40		14
<i>Hoodia gordonii</i>	MED	kg				1002.2	75	215.4
<i>Hoodia gordonii</i>	POW	kg	23384.5	32485.3	2275	14815.4	6049.9	15802
<i>Hoodia gordonii</i>	POW					3000		600
<i>Hoodia gordonii</i>	ROO	kg	60					12
<i>Hoodia gordonii</i>	SEE		30010000	15000000				9002000
<i>Hoodia gordonii</i>	STE	kg			200			40
<i>Hoodia pilifera</i>	LIV		20					4
<i>Hoodia</i> spp.	DER	kg			0.9		4.5	1.1
<i>Pachypodium baronii</i>	LIV					13		2.6
<i>Pachypodium bispinosum</i>	LIV		1640				30	334
<i>Pachypodium brevicaulis</i>	LIV		658	1499	110	850	770	777.4
<i>Pachypodium densiflorum</i>	LIV		1218	380	190	300	375	492.6

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Pachypodium eburneum</i>	LIV						50	10
<i>Pachypodium horombense</i>	LIV		158	247		230	155	158
<i>Pachypodium inopinatum</i>	LIV						71	14.2
<i>Pachypodium itremensis</i>	LIV					100		20
<i>Pachypodium lamerei</i>	LIV		800					160
<i>Pachypodium makayense</i>	LIV			62	50	30	148	58
<i>Pachypodium rosulatum</i>	LIV		1062	165	105	8	109	289.8
<i>Pachypodium rutenbergianum</i>	LIV		10					2
<i>Pachypodium</i> spp.	LIV		884	777	220	351	497	545.8
<i>Pachypodium</i> spp.	SEE			52000				10400
<i>Pachypodium succulentum</i>	LIV		40				30	14
<i>Rauvolfia serpentina</i>	ROO	kg	4900	1000	5037	670.5	230.8	2367.7
ARALIACEAE								
<i>Panax quinquefolius</i>	MED	kg					236.9	47.4
<i>Panax quinquefolius</i>	ROO	kg	25256	12993.5	46720.1	30889.6	22741	27720.1
<i>Panax quinquefolius</i>	ROO					32	3	7
BERBERIDACEAE								
<i>Podophyllum hexandrum</i>	EXT	kg				702		140.4
BROMELIACEAE								
<i>Tillandsia kautskyi</i>	LIV						50	10
<i>Tillandsia sucrei</i>	LIV						30	6
<i>Tillandsia xerographica</i>	LIV						135	27
CACTACEAE								
<i>Astrophytum myriostigma</i>	LIV					7		1.4
<i>Astrophytum myriostigma</i>	SEE	kg	200					40
<i>Blossfeldia liliputana</i>	LIV		40					8
Cactaceae spp.	DPL		298	2	4			60.8
Cactaceae spp.	EXT				6			1.2
Cactaceae spp.	LIV		1	10			69	16
Cactaceae spp.	SPE				8	4	5	3.4
<i>Carnegiea gigantea</i>	STE	kg					5600	1120
<i>Carnegiea gigantea</i>	TIM	kg					2800	560
<i>Carnegiea gigantea</i>	TIP		40000					8000
<i>Copiapoa cinerascens</i>	STE			5				1
<i>Copiapoa cinerea</i>	STE			5				1
<i>Copiapoa serpentisulcata</i>	LIV				30			6
<i>Corryocactus brevistylus</i>	CAR		1568			1300		573.6
<i>Corryocactus brevistylus</i>	STE		4858	1650	735	430	1370	1808.6
<i>Corryocactus brevistylus</i> ssp. puquiensis	STE				490			98
<i>Corryocactus pulquinensis</i>	STE		750	400				230
<i>Coryphantha radians</i>	SEE	kg	200					40
<i>Disocactus aurantiacus</i>	LIV			5				1
<i>Echinocactus</i>								
<i>horizonthalonius</i>	LIV					17		3.4
<i>Echinocactus platyacanthus</i>	SEE	kg	200			0.2		40
<i>Echinocactus texensis</i>	LIV					12		2.4
<i>Echinopsis chamaecereus</i>	LIV						400	80
<i>Echinopsis chiloensis</i>	CAR	m					5337.5	1067.5
<i>Echinopsis chiloensis</i>	CAR			13299	9622	3722	440	5416.6
<i>Echinopsis chiloensis</i>	DPL			900				180
<i>Echinopsis chiloensis</i>	LIV				40	42		16.4
<i>Echinopsis chiloensis</i>	STE	m	15093	13703	10882.1	11683.6		10272.3
<i>Echinopsis chiloensis</i>	STE		28180	3225	4925	500	300	7426
<i>Echinopsis chiloensis</i>	TIM					2050	4825	1375
<i>Echinopsis hertrichiana</i>	LIV		10					2
<i>Echinopsis mamillosa</i>	LIV		10					2
<i>Echinopsis marsoneri</i>	LIV		10					2

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Echinopsis pachanoi</i>	BAR	kg		70	10			16
<i>Echinopsis pachanoi</i>	DER				200			40
<i>Echinopsis pachanoi</i>	POW	kg	136.9			189.6	236.8	112.7
<i>Echinopsis pachanoi</i>	STE	kg	125			78.9	32.1	47.2
<i>Echinopsis pachanoi</i>	STE		1250	400		3406		1011.2
<i>Echinopsis pachanoi</i>	TIM	kg		25				5
<i>Echinopsis peruviana</i>	CAR		850					170
<i>Echinopsis peruviana</i>	DER				370			74
<i>Echinopsis peruviana</i>	DPL					196		39.2
<i>Echinopsis peruviana</i>	LIV			40				8
<i>Echinopsis peruviana</i>	STE			110				22
<i>Echinopsis peruviana</i>	TIM						184	36.8
<i>Echinopsis peruviana puquiensis</i>	CAR					400		80
<i>Echinopsis peruviana puquiensis</i>	STE		1536	2000	850	1961	980	1465.4
<i>Echinopsis</i> spp.	STE		110			10		24
<i>Echinopsis tegeleriana</i>	LIV		10					2
<i>Epithelantha micromeris</i>	LIV					6		1.2
<i>Eriogyne islayensis</i>	LIV		20					4
<i>Eulychnia acida</i>	CAR	m					22111.6	4422.3
<i>Eulychnia acida</i>	CAR			23163	22846	31115	12650	17954.8
<i>Eulychnia acida</i>	DER		160	695	665	731	15	453.2
<i>Eulychnia acida</i>	DPL				1948	800	565	662.6
<i>Eulychnia acida</i>	LIV				50	42		18.4
<i>Eulychnia acida</i>	STE	kg			1500	2556	2295	1270.2
<i>Eulychnia acida</i>	STE	m	44612	38662	30268.7	32070.9		29122.7
<i>Eulychnia acida</i>	STE		72911	12101	13810	2029		20170.2
<i>Eulychnia acida</i>	TIM					3712	1720	1086.4
<i>Eulychnia breviflora</i>	STE			16				3.2
<i>Ferocactus gracilis</i>	LIV					5		1
<i>Ferocactus hystrix</i>	SEE	kg	200					40
<i>Frailea castanea</i>	LIV					10		2
<i>Geohintonia mexicana</i>	LIV					14		2.8
<i>Harrisia nashii</i>	DPL			50				10
<i>Harrisia nashii</i>	FLO					7		1.4
<i>Harrisia nashii</i>	STE					15		3
<i>Hattoria</i> spp.	SPE			10				2
<i>Lepismium</i> spp.	SPE			10				2
<i>Mammillaria bocasana</i>	SEE	kg	200					40
<i>Mammillaria herrerae</i>	LIV					5		1
<i>Mammillaria plumosa</i>	LIV						600	120
<i>Matucana formosa</i>	LIV		10					2
<i>Matucana krahni</i>	LIV		10					2
<i>Matucana paucicostata</i>	LIV		10					2
<i>Melocactus</i> spp.	DPL			50				10
<i>Myrtillocactus geometrizans</i>	SEE	kg	200			0.4		40.1
<i>Myrtillocactus schenckii</i>	SEE	kg	200			0.2		40
<i>Obregonia denegrii</i>	SEE	kg	200					40
<i>Opuntia caribaea</i>	DPL			50				10
<i>Opuntia cholla</i>	POW	kg			2200			440
<i>Opuntia cochenillifera</i>	STE	kg				25		5
<i>Opuntia echios</i>	DER			195				39
<i>Opuntia echios</i>	SPE			195				39
<i>Opuntia engelmannii</i>	FRU		60					12
<i>Opuntia ficus-indica</i>	DPL	kg	2000	2000	2500	6000		2500
<i>Opuntia ficus-indica</i>	FLO	kg	2000	9020		13828	13860	7741.6
<i>Opuntia fulgida</i>	SPE		15					3
<i>Opuntia fulgida</i>	STE	kg				1100		220

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Opuntia galapageia</i>	DER			12				2.4
<i>Opuntia galapageia</i>	SPE			12				2.4
<i>Opuntia imbricata</i>	STE	kg					6000	1200
<i>Opuntia imbricata</i>	TIP	kg	8797					1759.4
<i>Opuntia insularis</i>	DER			10				2
<i>Opuntia insularis</i>	SPE			10				2
<i>Opuntia megasperma</i>	DER			5				1
<i>Opuntia megasperma</i>	SPE			5				1
<i>Opuntia moniliformis</i>	DPL			50				10
<i>Opuntia</i> spp.	DER	flasks		6960				1392
<i>Opuntia</i> spp.	DER				4800			960
<i>Opuntia</i> spp.	STE	kg		30000	45000		10678	17135.6
<i>Opuntia</i> spp.	STE	m <sup>3</sup>			23			4.6
<i>Opuntia</i> spp.	STE			4800	60			972
<i>Opuntia</i> spp.	TIM	kg	54727					10945.4
<i>Opuntia</i> spp.	TIP	kg	75000					15000
<i>Opuntia streptacantha</i>	BOD	kg				300		60
<i>Opuntia streptacantha</i>	DER	kg					500	100
<i>Opuntia streptacantha</i>	DPL	kg		300		900		240
<i>Opuntia streptacantha</i>	POW	kg			1800	600		480
<i>Opuntia streptacantha</i>	STE	kg		300				60
<i>Oroya peruviana</i>	LIV		20					4
<i>Pachycereus marginatus</i>	STE						1000	200
<i>Pachycereus schottii</i>	STE		10	3				2.6
<i>Parodia erinacea</i>	LIV		20					4
<i>Pelecyphora strobiliformis</i>	SEE	kg	200					40
<i>Polaskia chende</i>	SEE	kg	200					40
<i>Polaskia chichipe</i>	SEE	kg	200					40
<i>Rebutia albopectinata</i>	LIV		10					2
<i>Rebutia mentosa</i>	LIV		10					2
<i>Rhipsalis baccifera</i>	DPL		5					1
<i>Rhipsalis</i> spp.	SPE			320				64
<i>Schlumbergera</i> spp.	LIV			6				1.2
<i>Schlumbergera</i> spp.	SPE			10				2
<i>Sclerocactus</i> spp.	LIV			5	5			2
<i>Selenicereus grandiflorus</i>	FLO	kg					6000	1200
<i>Stenocereus alamosensis</i>	STE		20	13	10			8.6
<i>Stenocereus gummosus</i>	STE		20	10	10			8
<i>Stenocereus thurberi</i>	STE		5	10	10			5
<b>CUCURBITACEAE</b>								
<i>Zygosicyos tripartitus</i>	LIV						55	11
<b>CYATHEACEAE</b>								
<i>Cyathea arborea</i>	FIB	m <sup>3</sup>	26				116.6	28.5
<i>Cyathea australis</i>	LIV		341	320	7588	295		1708.8
<i>Cyathea brownii</i>	LIV		10					2
<i>Cyathea colensoi</i>	LIV					100		20
<i>Cyathea concinna</i>	STE	kg					6677	1335.4
<i>Cyathea contaminans</i>	CAR				160			32
<i>Cyathea contaminans</i>	CHP	kg		56700	43560			20052
<i>Cyathea contaminans</i>	DER		1250		183898			37029.6
<i>Cyathea contaminans</i>	SAW	kg					18442	3688.4
<i>Cyathea contaminans</i>	SAW						10	2
<i>Cyathea contaminans</i>	STE	kg	77150			28000		21030
<i>Cyathea contaminans</i>	STE		42700					8540
<i>Cyathea contaminans</i>	TIP	kg	505141.6	299549.8		241469	187927	246817.5
<i>Cyathea corcovadensis</i>	LVS						10	2
<i>Cyathea cunninghamii</i>	LIV		23			5	156	36.8
<i>Cyathea dealbata</i>	LIV		810	350	504	226	236	425.2

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Cyathea dregei</i>	LIV		20					4
<i>Cyathea lepifera</i>	CHP		2072					414.4
<i>Cyathea lepifera</i>	LIV		620					124
<i>Cyathea lepifera</i>	POW		57					11.4
<i>Cyathea lepifera</i>	TIM		1100					220
<i>Cyathea medullaris</i>	DPL	kg		1000	1265	500	3	553.6
<i>Cyathea medullaris</i>	EXT	kg			70	500	10	116
<i>Cyathea medullaris</i>	LIV		794	425	300	115	252	377.2
<i>Cyathea medullaris</i>	POW	kg		2000	870			574
<i>Cyathea sechellarum</i>	SPE		11					2.2
<i>Cyathea smithii</i>	LIV			95	130		243	93.6
<i>Cyathea</i> spp.	CAR		181			2		36.6
<i>Cyathea</i> spp.	DPL	kg	14308	5990	4000		1950	5249.6
<i>Cyathea</i> spp.	DPL		218	25074	25011	10	91	10080.8
<i>Cyathea</i> spp.	FIB	m <sup>3</sup>	123.8	230.4	21			75
<i>Cyathea</i> spp.	FPT	m <sup>3</sup>				39		7.8
<i>Cyathea</i> spp.	LIV		260			246		101.2
<i>Cyathea</i> spp.	LOG		150					30
<i>Cyathea</i> spp.	LVS			12	20		25	11.4
<i>Cyathea</i> spp.	SPE			64	1	10	91	33.2
<i>Cyatheaceae</i> spp.	CAR		109			20	4	26.6
<i>Cyatheaceae</i> spp.	DPL		488	16		2		101.2
<i>Cyatheaceae</i> spp.	LIV		143	3				29.2
<i>Cyatheaceae</i> spp.	SPE		19				8	5.4
<b>CYCADACEAE</b>								
<i>Cycadaceae</i> spp.	DPL		5					1
<i>Cycadaceae</i> spp.	LIV				7			1.4
<i>Cycadaceae</i> spp.	SEE			15000				3000
<i>Cycas revoluta</i>	LIV	kg					1253430.1	250686
<i>Cycas revoluta</i>	LIV		7	295	8946	48000	78690	27187.6
<i>Cycas revoluta</i>	LVS						22100	4420
<i>Cycas revoluta</i>	STE						600	120
<i>Cycas</i> spp.	DPL		70					14
<i>Cycas</i> spp.	LIV				4	50	6	12
<i>Cycas thouarsii</i>	LIV		150	1				30.2
<b>DICKSONIACEAE</b>								
<i>Cibotium barometz</i>	DER				12			2.4
<i>Cibotium barometz</i>	DPL	kg		67500	47000	1100	180300	59180
<i>Cibotium barometz</i>	DPL					1796500		359300
<i>Cibotium barometz</i>	LIV	kg				1000		200
<i>Cibotium barometz</i>	ROO	kg	61000	68500	87196	146976		72734.4
<i>Cibotium barometz</i>	TIP	kg	500					100
<i>Cibotium barometz</i>	TIP					500		100
<i>Dicksonia antarctica</i>	LIV		456					91.2
<i>Dicksonia brackenridgei</i>	LIV			13881		210		2818.2
<i>Dicksonia</i> spp.	DPL		7	5	5	5	6	5.6
<i>Dicksonia</i> spp.	LIV	kg	1575					315
<i>Dicksonia</i> spp.	LIV		133832					26766.4
<i>Dicksonia</i> spp.	SPE					5	6	2.2
<i>Dicksoniaceae</i> spp.	DPL		24					4.8
<b>DIDIEREACEAE</b>								
<i>Alluaudia ascendens</i>	LIV		720					144
<i>Alluaudia dumosa</i>	LIV		40					8
<i>Alluaudia humbertii</i>	DPL		1			4		1
<i>Alluaudia procera</i>	LIV		27					5.4
<i>Alluaudia procera</i>	LVS		1		5			1.2
<i>Didierea trollii</i>	LIV		60			50		22
<b>EUPHORBIACEAE</b>								

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Euphorbia abdelkuri</i>	DPL	kg			70			14
<i>Euphorbia alata</i>	LIV				5			1
<i>Euphorbia albipollinifera</i>	LIV		25					5
<i>Euphorbia ankarensis</i>	LIV		82			10		18.4
<i>Euphorbia antiquorum</i>	WAX	kg			34000		15000	9800
<i>Euphorbia antisiphilitica</i>	DER	kg			10060.9	0.7	1000	2212.3
<i>Euphorbia antisiphilitica</i>	DER				1422	893		463
<i>Euphorbia antisiphilitica</i>	DPL	kg		15000				3000
<i>Euphorbia antisiphilitica</i>	EXT	kg				39.4		7.9
<i>Euphorbia antisiphilitica</i>	EXT				1230	2364		718.8
<i>Euphorbia antisiphilitica</i>	STE	kg					10	2
<i>Euphorbia antisiphilitica</i>	WAX	kg	689200	1005865	1625520.8	1777703	1572473.5	1334152.5
<i>Euphorbia antisiphilitica</i>	WAX				10368	3732	20000	6820
<i>Euphorbia antso</i>	LIV		5			10		3
<i>Euphorbia astrophora</i>	LIV		25					5
<i>Euphorbia aureoviridiflora</i>	LIV			100				20
<i>Euphorbia bongolavensis</i>	LIV		10		10			4
<i>Euphorbia braunsii</i>	LIV		15				80	19
<i>Euphorbia bubalina</i>	LIV						10	2
<i>Euphorbia bupleurifolia</i>	LIV		5				755	152
<i>Euphorbia capmanambatoensis</i>	LIV		5					1
<i>Euphorbia colliculina</i>	LIV		62					12.4
<i>Euphorbia crassipes</i>	LIV		25					5
<i>Euphorbia croizatii</i>	LIV		200					40
<i>Euphorbia ecklonii</i>	LIV						70	14
<i>Euphorbia fusca</i>	LIV		60					12
<i>Euphorbia geroldii</i>	LIV		2120					424
<i>Euphorbia globosa</i>	LIV						526	105.2
<i>Euphorbia gorgonis</i>	LIV		15				1130	229
<i>Euphorbia gracilicaulis</i>	LIV			100				20
<i>Euphorbia guillauminiana</i>	DER						10	2
<i>Euphorbia guillauminiana</i>	LIV		218	120		45	180	112.6
<i>Euphorbia guillemetii</i>	LIV				10			2
<i>Euphorbia hedyotoides</i>	LIV		75	60	20			31
<i>Euphorbia hofstaetteri</i>	LIV		14					2.8
<i>Euphorbia horombensis</i>	LIV				50	50		20
<i>Euphorbia hybrid</i>	LIV					10		2
<i>Euphorbia iharanae</i>	LIV		200					40
<i>Euphorbia inermis</i>	LIV						35	7
<i>Euphorbia itremensis</i>	LIV		290	125	150	310	180	211
<i>Euphorbia kondoi</i>	LIV		15	10		10		7
<i>Euphorbia labatii</i>	LIV		150		150	80	200	116
<i>Euphorbia leucodendron</i>	DPL					8		1.6
<i>Euphorbia lophogona</i>	LIV		750			20		154
<i>Euphorbia mahabobokensis</i>	LIV			50				10
<i>Euphorbia mainty</i>	LIV			100				20
<i>Euphorbia meridionalis</i>	LIV						50	10
<i>Euphorbia milii</i>	LIV		10		10			4
<i>Euphorbia milii</i> var. <i>tananarivae</i>	LIV					20		4
<i>Euphorbia milii</i> var. <i>tenuispina</i>	LIV					10		2
<i>Euphorbia millotii</i>	LIV			100				20
<i>Euphorbia multiceps</i>	LIV		81				7	17.6
<i>Euphorbia multifolia</i>	LIV		129					25.8
<i>Euphorbia neohumbertii</i>	LIV					10		2
<i>Euphorbia pachypodioides</i>	LIV		65			10		15
<i>Euphorbia paulianii</i>	LIV				60	10		14



Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Euphorbia pedilanthoides</i>	LIV		35			10		9
<i>Euphorbia perrieri</i>	LIV		20					4
<i>Euphorbia polygona</i>	LIV						5	1
<i>Euphorbia primulifolia</i>	LIV		292	478	310	690	485	451
<i>Euphorbia primulifolia</i> var. <i>begardii</i>	LIV		200			20	80	60
<i>Euphorbia razafindratsirae</i>	LIV		43	10		10		12.6
<i>Euphorbia sakarahaensis</i>	LIV		24			10		6.8
<i>Euphorbia schoenlandii</i>	LIV		75					15
<i>Euphorbia silenifolia</i>	LIV						25	5
<i>Euphorbia</i> spp.	DER	kg					1000	200
<i>Euphorbia</i> spp.	DPL		68	22		253	4	69.4
<i>Euphorbia</i> spp.	EXT					694		138.8
<i>Euphorbia</i> spp.	LIV		325	22		19	12	75.6
<i>Euphorbia</i> spp.	LVS				93			18.6
<i>Euphorbia</i> spp.	SEE			600				120
<i>Euphorbia</i> spp.	SPE			68	712	107	40	185.4
<i>Euphorbia</i> spp.	STE					30		6
<i>Euphorbia</i> spp.	WAX	kg			1000	1000		400
<i>Euphorbia squarrosa</i>	LIV						50	10
<i>Euphorbia stellata</i>	LIV						2050	410
<i>Euphorbia stellispina</i>	LIV		65					13
<i>Euphorbia susannae</i>	LIV		40					8
<i>Euphorbia susannae-marnierae</i>	LIV		30	30		10		14
<i>Euphorbia tirucalli</i>	LVS				48			9.6
<i>Euphorbia viguieri</i>	LIV		300			20		64
<i>Euphorbia waringiae</i>	LIV		3860	10		10		776
HAEMODORACEAE								
<i>Anigozanthos rufus</i>	DPL		375					75
LAURACEAE								
<i>Aniba rosaeodora</i>	OIL	kg				97		19.4
LEGUMINOSAE								
<i>Caesalpinia echinata</i>	LVS					9		1.8
<i>Pericopsis elata</i>	CAR		15					3
<i>Pericopsis elata</i>	LIV					27.6		5.5
<i>Pericopsis elata</i>	LOG	m <sup>3</sup>	16511.6	17186.6	11297.1	1428.7	2550.7	9795
<i>Pericopsis elata</i>	LOG			140.4				28.1
<i>Pericopsis elata</i>	SAW	m <sup>3</sup>	10655	7199.5	5564.6	11258.5	8627	8660.9
<i>Pericopsis elata</i>	SAW					21.4		4.3
<i>Pericopsis elata</i>	TIM	m <sup>3</sup>	799.7	76	732.3	428.9	865	580.4
<i>Pericopsis elata</i>	VEN	m <sup>2</sup>	3953.4					790.7
<i>Pericopsis elata</i>	VEN	m <sup>3</sup>			5.2	5.2	10.5	4.2
<i>Pterocarpus santalinus</i>	LOG	kg	25000	177490	28600	13073		48832.6
<i>Pterocarpus santalinus</i>	UNS	kg					16.5	3.3
LILIACEAE								
<i>Aloe arborescens</i>	LIV		200					40
<i>Aloe arborescens</i>	LVS	kg			7000			1400
<i>Aloe arborescens</i>	POW	kg		10600	13260	8515	7800	8035
<i>Aloe betsileensis</i>	LIV				10			2
<i>Aloe capitata</i> var. <i>capitata</i>	LIV				5			1
<i>Aloe ciliaris</i>	LIV		200					40
<i>Aloe compressa</i>	LIV				5			1
<i>Aloe deltoideodonta</i>	LIV		510					102
<i>Aloe ferox</i>	DER	kg	1985.5	25523.8	20054.8	64000.2	22408.3	26794.5
<i>Aloe ferox</i>	DER	l	20		14400		2915	3467
<i>Aloe ferox</i>	DER		15047	22151	12265	14966	13990	15683.8
<i>Aloe ferox</i>	DPL	kg				500		100
<i>Aloe ferox</i>	DPL				6820	11660	1500	3996



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<i>Aloe ferox</i>	EXT	kg	376998.3	308465.4	320167.5	368557.6	476085.4	370054.8
<i>Aloe ferox</i>	EXT	l	85233.1	51050	62030.7	66788	31890	59398.4
<i>Aloe ferox</i>	EXT		984	626	1256	2044	970	1176
<i>Aloe ferox</i>	LIV		202	1				40.6
<i>Aloe ferox</i>	LVS	kg	24043	33115.1	10100	15890	4500	17529.6
<i>Aloe ferox</i>	LVS		108190	66425	60981	118300	100060	90791.2
<i>Aloe ferox</i>	MED	kg				189		37.8
<i>Aloe ferox</i>	POW	kg	40928	32299	238295	46577.2	68378	85295.4
<i>Aloe ferox</i>	STE					9606		1921.2
<i>Aloe fleurentinorum</i>	LIV		200					40
<i>Aloe fragilis</i>	LIV		300					60
<i>Aloe inexpectata</i>	LIV						50	10
<i>Aloe itremensis</i>	DPL			7				1.4
<i>Aloe macroclada</i>	LVS					5	6	2.2
<i>Aloe perrieri</i>	LIV		250					50
<i>Aloe pronkii</i>	LIV						50	10
<i>Aloe</i> spp.	DPL			6		4		2
<i>Aloe</i> spp.	LIV		384	130			100	122.8
<i>Aloe</i> spp.	SEE			1300				260
<b>MELIACEAE</b>								
<i>Swietenia humilis</i>	SAW	m <sup>3</sup>	121.1	401	271	127	32.2	190.5
<i>Swietenia macrophylla</i>	CAR	kg			454.6			90.9
<i>Swietenia macrophylla</i>	CAR	m <sup>3</sup>			390.5		3	78.7
<i>Swietenia macrophylla</i>	CAR				7102			1420.4
<i>Swietenia macrophylla</i>	DER	kg		1360.8				272.2
<i>Swietenia macrophylla</i>	LOG	m <sup>3</sup>	200.9	175.5	139.9		64	116.1
<i>Swietenia macrophylla</i>	LVS				10			2
<i>Swietenia macrophylla</i>	PLY	m <sup>3</sup>	11.3			44.9		11.2
<i>Swietenia macrophylla</i>	SAW	kg		65000				13000
<i>Swietenia macrophylla</i>	SAW	m <sup>2</sup>		2000	36.6			407.3
<i>Swietenia macrophylla</i>	SAW	m <sup>3</sup>	30082.6	27898.7	9801.6	57551.3	6677	26402.2
<i>Swietenia macrophylla</i>	SAW			13009.9				2602
<i>Swietenia macrophylla</i>	SPE					5		1
<i>Swietenia macrophylla</i>	TIM	kg		680			35271.3	7190.3
<i>Swietenia macrophylla</i>	TIM	m <sup>3</sup>	1388.7	21912.3	2911.2	25960.8	745.8	10583.8
<i>Swietenia macrophylla</i>	VEN	m <sup>2</sup>	14900	3340				3648
<i>Swietenia macrophylla</i>	VEN	m <sup>3</sup>		66	6		17.2	17.8
<i>Swietenia mahagoni</i>	SAW	kg			160			32
<i>Swietenia mahagoni</i>	SPE				64			12.8
<i>Swietenia mahagoni</i>	TIM	kg	18143.7					3628.7
<i>Swietenia mahagoni</i>	VEN	kg		13.6	10.4		5.8	6
<i>Swietenia</i> spp.	LIV						9891.2	1978.2
<b>NEPENTHACEAE</b>								
<i>Nepenthes ampullaria</i>	DPL		4		10			2.8
<i>Nepenthes ampullaria</i>	LIV		35					7
<i>Nepenthes ampullaria</i>	SPE		30		10			8
<i>Nepenthes bicalcarata</i>	DPL				410	200		122
<i>Nepenthes bicalcarata</i>	LIV		5					1
<i>Nepenthes bicalcarata</i>	POW						40	8
<i>Nepenthes bicalcarata</i>	SPE				10			2
<i>Nepenthes gracilis</i>	DPL		3		10			2.6
<i>Nepenthes gracilis</i>	SPE				10			2
<i>Nepenthes hirsuta</i>	LIV		15					3
<i>Nepenthes maxima</i>	LIV		18					3.6
<i>Nepenthes mirabilis</i>	DPL			1	10			2.2
<i>Nepenthes mirabilis</i>	LIV		12					2.4
<i>Nepenthes mirabilis</i>	SPE				10			2
<i>Nepenthes rafflesiana</i>	DPL		7		115			24.4

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Nepenthes rafflesiana</i>	LIV		34					6.8
<i>Nepenthes rafflesiana</i>	SPE				20			4
<i>Nepenthes</i> spp.	FLO				40			8
<i>Nepenthes</i> spp.	LIV		47	704	93	2		169.2
<i>Nepenthes sumatrana</i>	LIV		10					2
<i>Nepenthes truncata</i>	LIV		20					4
<i>Nepenthes veitchii</i>	LIV		10			10		4
<i>Nepenthes ventricosa</i>	LIV		14			1		3
<b>ORCHIDACEAE</b>								
<i>Aa</i> spp.	DPL		7	2				1.8
<i>Acriopsis</i> spp.	FLO			6				1.2
<i>Acriopsis</i> spp.	LIV			6				1.2
<i>Ada ocanensis</i>	DPL					60		12
<i>Ada</i> spp.	DPL		4	2				1.2
<i>Aerangis articulata</i>	LIV			30				6
<i>Aerangis citrata</i>	LIV			2			10	2.4
<i>Aerangis cryptodon</i>	LIV		23					4.6
<i>Aerangis curnowiana</i>	LIV		20		20	20	20	16
<i>Aerangis fastuosa</i>	LIV		9	2	1			2.4
<i>Aerangis fuscata</i>	LIV		2	10		10	20	8.4
<i>Aerangis hyaloides</i>	LIV		18	2		20		8
<i>Aerangis modesta</i>	LIV			10				2
<i>Aerangis pallidiflora</i>	LIV						6	1.2
<i>Aerangis punctata</i>	LIV						6	1.2
<i>Aerangis</i> spp.	LIV		4		250			50.8
<i>Aeranthes caudata</i>	LIV		3				6	1.8
<i>Aeranthes grandiflora</i>	LIV		5	13				3.6
<i>Aeranthes henrici</i>	LIV		33	30	30	40	40	34.6
<i>Aeranthes henrici</i>	LVS		201					40.2
<i>Aeranthes henrici</i>	SEE			27				5.4
<i>Aeranthes henrici</i>	SPE			5				1
<i>Aeranthes ramosa</i>	LIV		22	46	21	20	26	27
<i>Aeranthes</i> spp.	DPL		5					1
<i>Agrostophyllum</i> spp.	FLO			55				11
<i>Agrostophyllum</i> spp.	LIV			15				3
<i>Anacamptis papilionacea</i>	DPL					400		80
<i>Anacamptis sancta</i>	SEE					400		80
<i>Angraecum appendiculoides</i>	LIV						6	1.2
<i>Angraecum breve</i>	LIV			10				2
<i>Angraecum calceolus</i>	LIV						6	1.2
<i>Angraecum compactum</i>	LIV		20	21	10	20	10	16.2
<i>Angraecum drouhardii</i>	LIV			20				4
<i>Angraecum eburneum</i> ssp. <i>superbum</i> var. <i>longicalcar</i>	LVS					83		16.6
<i>Angraecum equitans</i>	LIV			15				3
<i>Angraecum germinyatum</i>	LIV		3	15	1			3.8
<i>Angraecum leonis</i>	LIV		1	5	2			1.6
<i>Angraecum magdalenae</i>	LIV		2			10	10	4.4
<i>Angraecum obesum</i>	LIV		20	20				8
<i>Angraecum pseudofilicornu</i>	LIV		3	10			10	4.6
<i>Angraecum ramosum</i>	LIV		1	10				2.2
<i>Angraecum rutenbergianum</i>	LIV		2	20	1			4.6
<i>Angraecum sedifolium</i>	SPE				108			21.6
<i>Angraecum sesquipedale</i>	LIV		4	2				1.2
<i>Angraecum sesquipedale</i>	LVS		18	150		141		61.8
<i>Angraecum sororium</i>	LIV			10				2
<i>Angraecum</i> spp.	DPL		12	2		7		4.2
<i>Angraecum</i> spp.	LIV			10	650	6		133.2
<i>Angraecum</i> spp.	SPE	kg		6.6	0.5			1.4

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Angraecum teretifolium</i>	LIV		22	20			10	10.4
<i>Angraecum viguieri</i>	LIV		21	20				8.2
<i>Appendicula</i> spp.	FLO			20				4
<i>Ascocentrum miniatum</i>	LIV		5					1
<i>Aspasia</i> spp.	LVS						13	2.6
<i>Beclardia macrostachya</i>	LIV		13				10	4.6
<i>Bletia florida</i>	LIV		4				30	6.8
<i>Bletia purpurea</i>	LIV						30	6
<i>Bletia</i> spp.	LIV						60	12
<i>Brachionidium</i> spp.	SPE					10		2
<i>Brachypeza indusiata</i>	LVS			5				1
<i>Brassavola cordata</i>	LIV		1		40		40	16.2
<i>Brassavola nodosa</i>	LIV				400			80
<i>Brassavola tuberculata</i>	LIV			10				2
<i>Brassia caudata</i>	LIV		4				50	10.8
<i>Brassia maculata</i>	LIV				100			20
<i>Broughtonia negrilensis</i>	LIV				50			10
<i>Broughtonia sanguinea</i>	LIV				100		50	30
<i>Bulbophyllum alexandrae</i>	LIV		10	1				2.2
<i>Bulbophyllum baronii</i>	LIV			10				2
<i>Bulbophyllum coriophorum</i>	LIV			22				4.4
<i>Bulbophyllum hamelinii</i>	LIV		10	20	20	10	10	14
<i>Bulbophyllum occlusum</i>	LIV		10	11				4.2
<i>Bulbophyllum peyrotii</i>	SPE					35		7
<i>Bulbophyllum sandrangatense</i>	SPE					8		1.6
<i>Bulbophyllum</i> spp.	DPL		77		1055	3		227
<i>Bulbophyllum</i> spp.	FLO		12	295				61.4
<i>Bulbophyllum</i> spp.	LIV			40				8
<i>Bulbophyllum</i> spp.	LVS		12					2.4
<i>Bulbophyllum</i> spp.	SPE		180		1055			247
<i>Bulbophyllum</i> spp.	STE			10				2
<i>Cadetia</i> spp.	FLO			13				2.6
<i>Caladenia latifolia</i>	LIV						6	1.2
<i>Calanthe madagascariensis</i>	LIV			20	20		5	9
<i>Calanthe</i> spp.	FLO			15				3
<i>Calanthe</i> spp.	LIV			45				9
<i>Campylocentrum micranthum</i>	LIV				20			4
<i>Campylocentrum pachyrrhizum</i>	LIV		10		20			6
<i>Campylocentrum</i> spp.	LIV				40			8
<i>Catasetum tenebrosum</i>	SPE			7				1.4
<i>Cattleya</i> spp.	LIV				15			3
<i>Cattleya</i> spp.	ROO			9				1.8
<i>Caularthron bilamellatum</i>	DPL					6		1.2
<i>Caularthron bilamellatum</i>	LIV					10		2
<i>Caularthron bilamellatum</i>	SPE					50		10
<i>Chysis bractescens</i>	LIV				300			60
<i>Cleisostoma</i> spp.	FLO			6				1.2
<i>Cleisostoma</i> spp.	LVS			5				1
<i>Cochleanthes flabelliformis</i>	LIV		8					1.6
<i>Coelogyne</i> spp.	FLO			21				4.2
<i>Coryanthes</i> spp.	LIV				100			20
<i>Corybas diemenicus</i>	LIV						6	1.2
<i>Corybas incurvus</i>	LIV						6	1.2
<i>Corybas</i> spp.	LIV				12			2.4
<i>Cranichis</i> spp.	DPL		8	3				2.2
<i>Crybe</i> spp.	SEE				20			4
<i>Cryptocentrum</i> spp.	SPE					6		1.2

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Cyclopogon</i> spp.	SPE		3			2		1
<i>Cymbidiella falcigera</i>	LIV		5	15				4
<i>Cymbidiella</i> spp.	LIV		5	15				4
<i>Cymbidium</i> spp.	FLO			1000				200
<i>Cynorkis gibbosa</i>	LIV		3	15				3.6
<i>Cynorkis</i> spp.	DPL		11	1		6		3.6
<i>Cynorkis</i> spp.	LIV		3	30				6.6
<i>Cynorkis uncinata</i>	LIV		3	15				3.6
<i>Cypripedium parviflorum</i>	LIV		61					12.2
<i>Cypripedium reginae</i>	LIV		25		5			6
<i>Cyrtochilum loxense</i>	SPE			10				2
<i>Cyrtochilum</i> spp.	DPL		6	4				2
<i>Cyrtochilum</i> spp.	SPE		3			21		4.8
<i>Dendrobium antennatum</i>	STE			22				4.4
<i>Dendrobium aphyllum</i>	LIV	kg		7992				1598.4
<i>Dendrobium aphyllum</i>	STE	kg				1585		317
<i>Dendrobium capillipes</i>	ROO	kg	8000					1600
<i>Dendrobium chrysotoxum</i>	LIV	kg	150000					30000
<i>Dendrobium chrysotoxum</i>	LIV		5					1
<i>Dendrobium chrysotoxum</i>	ROO	kg	7000					1400
<i>Dendrobium cochliodes</i>	STE			10				2
<i>Dendrobium convolutum</i>	STE			5				1
<i>Dendrobium cuthbertsonii</i>	STE			10				2
<i>Dendrobium discolor</i>	STE			40				8
<i>Dendrobium eriiflorum</i>	ROO	kg			5000			1000
<i>Dendrobium eriiflorum</i>	STE	kg		18990				3798
<i>Dendrobium fimbriatum</i>	ROO	kg	8000					1600
<i>Dendrobium gouldii</i>	STE			22				4.4
<i>Dendrobium hercoglossum</i>	ROO	kg	7000					1400
<i>Dendrobium lasianthera</i>	STE			35				7
<i>Dendrobium lineale</i>	STE			52				10.4
<i>Dendrobium macrophyllum</i>	STE			9				1.8
<i>Dendrobium mirbelianum</i>	STE			10				2
<i>Dendrobium moschatum</i>	LIV	kg	150000					30000
<i>Dendrobium nobile</i>	DPL	kg	4000					800
<i>Dendrobium nobile</i>	LIV			6				1.2
<i>Dendrobium nobile</i>	STE	kg				5.9	35	8.2
<i>Dendrobium speciosum</i>	LIV		151	17				33.6
<i>Dendrobium</i> spp.	DER	kg	6.5					1.3
<i>Dendrobium</i> spp.	DER						30	6
<i>Dendrobium</i> spp.	FIB		12	2	18	15		9.4
<i>Dendrobium</i> spp.	FLO			548	3			110.2
<i>Dendrobium</i> spp.	LIV	kg	100000					20000
<i>Dendrobium</i> spp.	LIV		1		31			6.4
<i>Dendrobium</i> spp.	POW	kg				11.2		2.2
<i>Dendrobium</i> spp.	ROO			6				1.2
<i>Dendrobium</i> spp.	SPE			5				1
<i>Dendrobium</i> spp.	STE	kg			11.2			2.2
<i>Dendrobium</i> spp.	STE			40				8
<i>Dendrobium sylvanum</i>	STE			20				4
<i>Dendrobium vexillarius</i>	STE			5				1
<i>Dendrobium williamsianum</i>	STE			10				2
<i>Dendrochilum</i> spp.	LIV				100			20
<i>Dendrophylax funalis</i>	LIV			10	50			12
<i>Dichaea</i> spp.	DPL		9	2	1	9		4.2
<i>Dichaea</i> spp.	LVS						24	4.8
<i>Dilomilis montana</i>	LIV				10			2
<i>Dilomilis</i> spp.	LIV				10			2

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Dimerandra</i> spp.	DPL					67		13.4
<i>Dinema polybulbon</i>	LIV				26		50	15.2
<i>Diplocaulobium</i> spp.	FLO			72				14.4
<i>Diplocaulobium</i> spp.	STE			5				1
<i>Disa</i> spp.	DPL				5			1
<i>Diuris</i> spp.	LIV				7			1.4
<i>Dryadella</i> spp.	LIV					12		2.4
<i>Earina mucronata</i>	LIV			20				4
<i>Elleanthus capitatus</i>	LIV		2		20			4.4
<i>Elleanthus longibracteatus</i>	LIV		7		20		20	9.4
<i>Elleanthus</i> spp.	DPL		28	15	1	2		9.2
<i>Elleanthus</i> spp.	LIV		2		40		20	12.4
<i>Elleanthus</i> spp.	LVS						5	1
<i>Elleanthus</i> spp.	SPE		18			16		6.8
<i>Encyclia alata</i>	LIV				200			40
<i>Encyclia amanda</i>	LIV				100			20
<i>Encyclia bractescens</i>	LIV				200			40
<i>Encyclia caicensis</i>	DPL				9			1.8
<i>Encyclia fragrans</i>	LIV		6				50	11.2
<i>Encyclia ochracea</i>	SPE					5		1
<i>Encyclia radiata</i>	LIV				300			60
<i>Encyclia</i> spp.	DPL			3	4			1.4
<i>Encyclia</i> spp.	LVS						11	2.2
<i>Encyclia</i> spp.	SPE				5			1
<i>Epidendrum diffusum</i>	LIV		6	8	100		25	27.8
<i>Epidendrum firmum</i>	FRU					100		20
<i>Epidendrum firmum</i>	LVS					900		180
<i>Epidendrum firmum</i>	ROO					100		20
<i>Epidendrum inaguense</i>	DPL				8			1.6
<i>Epidendrum inaguense</i>	SPE				17			3.4
<i>Epidendrum mancum</i>	SPE					5		1
<i>Epidendrum nocturnum</i>	LVS						9	1.8
<i>Epidendrum saxicola</i>	DPL		5					1
<i>Epidendrum saxicola</i>	SPE		5					1
<i>Epidendrum</i> spp.	DPL		119	52	1	1		34.6
<i>Epidendrum</i> spp.	SPE		36			69		21
<i>Erasanthe henrici</i>	LVS					256		51.2
<i>Eria hyacinthoides</i>	LIV				20			4
<i>Eria</i> spp.	FLO			37				7.4
<i>Erycina pusilla</i>	LIV			1	100			20.2
<i>Eulophia</i> spp.	DPL		3	5	3			2.2
<i>Eulophiella elisabethae</i>	LIV		1		2		2	1
<i>Eulophiella roempleriana</i>	LIV		2	3	2	4	2	2.6
<i>Flickingeria</i> spp.	FLO			16				3.2
<i>Galeandra batemanii</i>	LIV				100			20
<i>Gastrochilus</i> spp.	LIV				150			30
<i>Gastrorchis francoisii</i>	LIV		2	12			5	3.8
<i>Gastrorchis humblotii</i>	LIV		2	10			5	3.4
<i>Gastrorchis humblotii</i> var. <i>schlechteri</i>	LIV		3	12				3
<i>Glomera</i> spp.	FLO			16				3.2
<i>Gomphichis</i> spp.	SPE		2			3		1
<i>Gongora</i> spp.	DER					25		5
<i>Gongora</i> spp.	LIV		39					7.8
<i>Gongora truncata</i>	LIV				100			20
<i>Gongora unicolor</i>	LIV				100			20
<i>Goodyera</i> spp.	FLO			16				3.2
<i>Grammangis ellisii</i>	LIV		5	2	1			1.6
<i>Grammangis</i> spp.	LIV		5					1

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Grammatophyllum</i> spp.	FLO			7				1.4
<i>Habenaria</i> spp.	DPL		10	4	8			4.4
<i>Habenaria</i> spp.	SPE		6			5		2.2
<i>Heterotaxis crassifolia</i>	LIV						20	4
<i>Ionopsis satyrioides</i>	LIV				30			6
<i>Ionopsis</i> spp.	LIV				50			10
<i>Ionopsis utricularioides</i>	LIV		16		250		50	63.2
<i>Isochilus linearis</i>	LIV		3		100			20.6
<i>Jumellea jumelleana</i>	LIV			20				4
<i>Jumellea pandurata</i>	LIV			20				4
<i>Jumellea punctata</i>	LIV			10				2
<i>Jumellea</i> spp.	DPL		1			12		2.6
<i>Jumellea</i> spp.	LIV			30				6
<i>Jumellea</i> spp.	SPE				74			14.8
<i>Laelia</i> spp.	LIV				6			1.2
<i>Leochilus labiatus</i>	LIV				120			24
<i>Leochilus</i> spp.	LIV				20			4
<i>Lepanthes cochlearifolia</i>	LIV			1			5	1.2
<i>Lepanthes elliptica</i>	LIV						5	1
<i>Lepanthes ovalis</i>	LIV						5	1
<i>Lepanthes quadrata</i>	LIV						5	1
<i>Lepanthes</i> spp.	DPL		43	7		1		10.2
<i>Lepanthes</i> spp.	LIV						15	3
<i>Lepanthes</i> spp.	SPE		26			30		11.2
<i>Leptoceras menziesii</i>	LIV						7	1.4
<i>Liparis</i> spp.	DPL		4	1		1		1.2
<i>Liparis</i> spp.	FLO			10				2
<i>Luisia</i> spp.	LVS				5			1
<i>Lycaste aromatica</i>	LIV				200			40
<i>Lycaste barringtoniae</i>	LIV		3		20		20	8.6
<i>Lycaste</i> spp.	LIV				20			4
<i>Macradenia lutescens</i>	LIV		2	12	30			8.8
<i>Macradenia</i> spp.	LIV				30			6
<i>Malaxis monophyllos</i>	SPE					13		2.6
<i>Malaxis</i> spp.	DPL		7			1		1.6
<i>Malaxis</i> spp.	FLO			8				1.6
<i>Malaxis</i> spp.	SPE		6					1.2
<i>Malleola</i> spp.	LVS			5				1
<i>Masdevallia scandens</i>	SPE					63		12.6
<i>Masdevallia solomonii</i>	SPE					144		28.8
<i>Masdevallia</i> spp.	DPL		11	1				2.4
<i>Masdevallia</i> spp.	LVS					360		72
<i>Masdevallia</i> spp.	SPE		4			18		4.4
<i>Masdevallia yungasensis</i>	SPE					153		30.6
<i>Maxillaria conferta</i>	LIV		3	2			20	5
<i>Maxillaria</i> spp.	DPL		115	37	4	7		32.6
<i>Maxillaria</i> spp.	LIV				1		40	8.2
<i>Maxillaria</i> spp.	LVS						12	2.4
<i>Maxillaria</i> spp.	SPE		29			38		13.4
<i>Maxillaria tenuifolia</i>	LIV				200			40
<i>Maxillaria uncata</i>	LVS						40	8
<i>Mediocalcar</i> spp.	FLO			8				1.6
<i>Microcoelia gilpinae</i>	LIV		20	20	10	10	10	14
<i>Microcoelia macrantha</i>	LIV			30	10	10		10
<i>Microcoelia</i> spp.	LIV			20				4
<i>Mormodes</i> spp.	LIV				100			20
<i>Myoxanthus</i> spp.	DPL		5	1				1.2
<i>Myoxanthus</i> spp.	SPE		3			9		2.4

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Myrmecophila tibicinis</i>	LIV				600			120
<i>Neobathiea grandidierana</i>	LIV			1			10	2.2
<i>Neocogniauxia monophylla</i>	LIV				80		40	24
<i>Neodryas</i> spp.	DPL		5	2				1.4
<i>Neolehmannia difformis</i>	LIV		10				25	7
<i>Neolehmannia difformis</i>	LVS						12	2.4
<i>Neuwiedia</i> spp.	LVS			5				1
<i>Neuwiedia veratrifolia</i>	FLO			20				4
<i>Neuwiedia veratrifolia</i>	LVS			5				1
<i>Nidema ottonis</i>	LIV		5					1
<i>Notylia barkeri</i>	LEA						5	1
<i>Notylia</i> spp.	LIV				200			40
<i>Oberonia</i> spp.	FLO			40				8
<i>Odontoglossum</i> spp.	DPL		5	4				1.8
<i>Odontoglossum</i> spp.	SPE		3			4		1.4
<i>Odontoglossum subuligerum</i>	DPL		7					1.4
<i>Odontoglossum subuligerum</i>	SPE		6					1.2
<i>Oeceoclades boinensis</i>	LIV				5			1
<i>Oeceoclades calcarata</i>	LIV					10		2
<i>Oeceoclades decaryana</i>	LIV		50		25	30		21
<i>Oeceoclades perrieri</i>	LIV		30			10		8
<i>Oeceoclades peyrotii</i>	LIV						5	1
<i>Oeceoclades roseovariiegata</i>	LIV		40			10	5	11
<i>Oeceoclades spathulifera</i>	LIV		80			10		18
<i>Oeceoclades</i> spp.	LIV		10			1		2.2
<i>Oeonia rosea</i>	LIV		3				10	2.6
<i>Oeoniella polystachys</i>	LIV		6	2				1.6
<i>Oncidium pulchellum</i>	LIV			8	50			11.6
<i>Oncidium</i> spp.	DPL		4	3				1.4
<i>Oncidium</i> spp.	LIV			1	50		130	36.2
<i>Oncidium</i> spp.	SPE		1			11		2.4
<i>Oncidium tetrapetalum</i>	LIV		10		50			12
<i>Oncidium triquetrum</i>	LIV				50			10
Orchidaceae hybrid	LIV			1	8	8		3.4
Orchidaceae hybrid	LVS				58			11.6
Orchidaceae hybrid	SPE				164			32.8
Orchidaceae hybrid	STE			80				16
Orchidaceae spp.	DER						15	3
Orchidaceae spp.	DPL	kg	106					21.2
Orchidaceae spp.	DPL		1160	353	169	1097	888	733.4
Orchidaceae spp.	EXT				5		30	7
Orchidaceae spp.	FIB						5	1
Orchidaceae spp.	FLO		22	6		33		12.2
Orchidaceae spp.	FRU						428	85.6
Orchidaceae spp.	LIV		374	206	2007	204	2135	985.2
Orchidaceae spp.	LVS		61		2	45	100	41.6
Orchidaceae spp.	ROO						60	12
Orchidaceae spp.	SEE						50	10
Orchidaceae spp.	SPE		62	437	687	188	591	393
<i>Ornithocephalus</i> spp.	SPE			2		3		1
<i>Pachyphyllum</i> spp.	DPL		30	7		3		8
<i>Pachyphyllum</i> spp.	SPE		22			7		5.8
<i>Paphiopedilum</i> spp.	STE			5				1
<i>Pedilochilus</i> spp.	FLO			12				2.4
<i>Phaius</i> spp.	FLO			6				1.2
<i>Phaius tankervilleae</i>	LIV						30	6
<i>Phalaenopsis amabilis</i>	LIV						80	16
<i>Phalaenopsis</i> spp.	EXT					60		12



Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Phalaenopsis</i> spp.	LIV		1000		25		25	210
<i>Pholidota</i> spp.	FLO			9				1.8
<i>Phreatia</i> spp.	FLO			59				11.8
<i>Platanthera bifolia</i>	LVS		200					40
<i>Platanthera chlorantha</i>	LVS		200					40
<i>Platystele</i> spp.	LIV			1		18		3.8
<i>Platystele</i> spp.	SPE		3			6		1.8
<i>Pleurothallis acanthodes</i>	LIV					5		1
<i>Pleurothallis bivalvis</i>	SPE					18		3.6
<i>Pleurothallis corniculata</i>	LIV		10				5	3
<i>Pleurothallis grobyi</i>	LIV				100	9		21.8
<i>Pleurothallis lilijae</i>	SPE					6		1.2
<i>Pleurothallis pruinosa</i>	LIV		10	11				4.2
<i>Pleurothallis quadrifida</i>	LIV			4			5	1.8
<i>Pleurothallis sertularioides</i>	LIV			5			5	2
<i>Pleurothallis</i> spp.	DPL		92	33	3	29		31.4
<i>Pleurothallis</i> spp.	LIV		2			36	5	8.6
<i>Pleurothallis</i> spp.	LVS						38	7.6
<i>Pleurothallis</i> spp.	SPE		31			122		30.6
<i>Pleurothallis tribuloides</i>	LIV			5			5	2
<i>Polystachya concreta</i>	LVS						20	4
<i>Polystachya</i> spp.	DPL		13	1	4	10		5.6
<i>Pomatocalpa kunstleri</i>	LVS			5				1
<i>Pomatocalpa</i> spp.	FLO			12				2.4
<i>Ponthieva brittoniae</i>	DPL				5			1
<i>Ponthieva brittoniae</i>	SPE				7			1.4
<i>Ponthieva</i> spp.	DPL		4	1				1
<i>Prosthechea cochleata</i>	LIV			5				1
<i>Prosthechea</i> spp.	DPL		5	3				1.6
<i>Prosthechea</i> spp.	SPE		4			2		1.2
<i>Prosthechea vespa</i>	SPE					5		1
<i>Pseuderia</i> spp.	FLO			6				1.2
<i>Rhyncholelia glauca</i>	LIV				100			20
<i>Rhynchostylis gigantea</i>	LIV		5					1
<i>Rhynchostylis retusa</i>	LIV		5					1
<i>Robiquetia</i> spp.	FLO			69				13.8
<i>Rusbyella</i> spp.	DPL		4	3				1.4
<i>Sarcanthopsis</i> spp.	FLO			8				1.6
<i>Sarcophyton</i> spp.	LIV				35	18		10.6
<i>Scaphosepalum dalstroemii</i>	LIV			1		17		3.6
<i>Scaphosepalum</i> spp.	LIV			3		5		1.6
<i>Scaphyglottis prolifera</i>	LVS						15	3
<i>Scaphyglottis</i> spp.	DPL		8	1		31		8
<i>Scaphyglottis</i> spp.	LVS						70	14
<i>Scaphyglottis</i> spp.	SPE		4			3		1.4
<i>Scelochilus</i> spp.	DPL			6				1.2
<i>Schomburgkia lyonsii</i>	LIV		1	1	30		30	12.4
<i>Schomburgkia</i> spp.	LIV				30		30	12
<i>Sobennikoffia humbertiana</i>	LIV		22			20		8.4
<i>Sobennikoffia robusta</i>	LIV		20		15	10	10	11
<i>Sobennikoffia</i> spp.	LIV		20					4
<i>Sobralia fragrans</i>	LVS						17	3.4
<i>Sobralia</i> spp.	DPL		13	4		3		4
<i>Sobralia</i> spp.	LVS						6	1.2
<i>Sobralia</i> spp.	SPE		7			1		1.6
<i>Specklinia</i> spp.	LIV						5	1
<i>Specklinia</i> spp.	SPE					6		1.2
<i>Stanhopea oculata</i>	LIV				100			20

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Stanhopea</i> spp.	LIV				100			20
<i>Stelis ophioglossoides</i>	LIV		5	4				1.8
<i>Stelis</i> spp.	DPL		168	31		3		40.4
<i>Stelis</i> spp.	LIV			2			5	1.4
<i>Stelis</i> spp.	LVS						7	1.4
<i>Stelis</i> spp.	SPE		31			135		33.2
<i>Stelis superbiens</i>	SPE			5		31		7.2
<i>Stellilabium</i> spp.	DPL		5	1				1.2
<i>Telipogon machupicchuensis</i>	DPL		5					1
<i>Telipogon</i> spp.	DPL		44	8				10.4
<i>Telipogon</i> spp.	SPE		25			3		5.6
<i>Thelasis</i> spp.	FLO			8				1.6
<i>Thelymitra frenchii</i>	LIV						6	1.2
<i>Thelymitra</i> spp.	LIV			4	16			4
<i>Thrixspermum</i> spp.	FLO			10				2
<i>Tolumnia guttata</i>	LIV						50	10
<i>Tolumnia triquetra</i>	LIV						40	8
<i>Trichocentrum carthagenense</i>	LIV				100			20
<i>Trichocentrum microchilum</i>	LIV		3	6	250		50	61.8
<i>Trichoglottis</i> spp.	FLO			6				1.2
<i>Trichopilia</i> spp.	DPL			1		4		1
<i>Trichopilia</i> spp.	LVS						8	1.6
<i>Trichosalpinx</i> spp.	DPL		3	2				1
<i>Trichosalpinx</i> spp.	LVS						21	4.2
<i>Trichosalpinx</i> spp.	SPE		2			12		2.8
<i>Tridactyle</i> spp.	DPL				5			1
<i>Trigonidium</i> spp.	LVS						16	3.2
<i>Vanda coerulea</i>	LIV				7			1.4
<i>Vanda</i> spp.	LIV				700			140
<i>Vanda</i> spp.	STE			30				6
<i>Vanilla claviculata</i>	LIV				40		30	14
<i>Vanilla humblotii</i>	SPE	kg			5			1
<i>Vanilla humblotii</i>	SPE				150	150		60
<i>Vanilla planifolia</i>	LIV				100			20
<i>Vanilla</i> spp.	DPL		2			23		5
<i>Vanilla</i> spp.	LIV		3				2600	520.6
<i>Vanilla</i> spp.	SEE		70					14
<i>Vanilla</i> spp.	SPE		8					1.6
<i>Zygostates</i> spp.	SPE			2		3		1
<b>OROBANCHACEAE</b>								
<i>Cistanche deserticola</i>	DER	kg	3.6	200.9	0.7			41.1
<i>Cistanche deserticola</i>	MED	kg					36.4	7.3
<i>Cistanche deserticola</i>	ROO	kg				31.1		6.2
<b>PALMAE</b>								
<i>Beccariophoenix madagascariensis</i>	SEE	kg	30.2	40				14
<i>Lemurophoenix halleuxii</i>	SEE	kg	100	0.1	0.1		1.8	20.4
<i>Lemurophoenix halleuxii</i>	SPE				161		3	32.8
<i>Marojejya darianii</i>	DPL		4	2				1.2
<i>Neodypsis decaryi</i>	LIV		3	2				1
<i>Neodypsis decaryi</i>	SEE	kg		320				64
<i>Ravenea rivularis</i>	LIV		541	1200	12			350.6
<i>Ravenea rivularis</i>	SEE	kg	8925	3675	4350	5825	7250	6005
<i>Satranala decussilvae</i>	SEE	kg	94	1.8	1.8			19.5
<i>Voanioala gerardii</i>	SPE				75			15
<b>PORTULACACEAE</b>								
<i>Avonia quinaria</i> ssp. <i>alstonii</i>	LIV						635	127
<b>PRIMULACEAE</b>								

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Cyclamen cilicium</i>	DPL			80	100			36
<i>Cyclamen cilicium</i>	LIV		250000	207843	74945	68800	40380	128393.6
<i>Cyclamen cilicium</i>	ROO			63	108995		14020	24615.6
<i>Cyclamen coum</i>	LIV	kg		6636				1327.2
<i>Cyclamen coum</i>	LIV		500070	415560	258610	331400	300795	361287
<i>Cyclamen coum</i>	ROO				402515		233195	127142
<i>Cyclamen graecum</i>	DPL			80	100			36
<i>Cyclamen graecum</i>	LIV			5				1
<i>Cyclamen graecum</i>	ROO			5	75			16
<i>Cyclamen hederifolium</i>	LIV	kg		1370				274
<i>Cyclamen hederifolium</i>	LIV		800120	729160	173640	261350	30	392860
<i>Cyclamen hederifolium</i>	ROO				373550			74710
<i>Cyclamen</i> spp.	ROO					20		4
<b>ROSACEAE</b>								
<i>Prunus africana</i>	BAR	kg	1009300	641800.4	604725	129600	635886	604262.3
<i>Prunus africana</i>	BAR			10	132			28.4
<i>Prunus africana</i>	CAR	kg			12	30		8.4
<i>Prunus africana</i>	DER			20				4
<i>Prunus africana</i>	EXT	kg	46.8	668.5	639	20		274.9
<i>Prunus africana</i>	LVS	kg		0.2	31			6.2
<i>Prunus africana</i>	LVS		130	60				38
<i>Prunus africana</i>	POW	kg	706500					141300
<i>Prunus africana</i>	SPE			450				90
<i>Prunus africana</i>	TIP			240				48
<b>SARRACENIACEAE</b>								
<i>Sarracenia purpurea</i>	DPL	kg	36					7.2
<i>Sarracenia</i> spp.	LIV					23		4.6
<i>Bowenia serrulata</i>	DPL				440	124		112.8
<i>Bowenia serrulata</i>	FLO				160	44		40.8
<i>Bowenia serrulata</i>	LIV		132					26.4
<i>Bowenia serrulata</i>	LVS				80			16
<i>Bowenia serrulata</i>	STE				480			96
<b>TAXACEAE</b>								
<i>Taxus cuspidata</i>	EXT	kg	36			60	60	31.2
<i>Taxus cuspidata</i>	LIV		7	17				4.8
<i>Taxus cuspidata</i>	LOG	m <sup>3</sup>	50					10
<i>Taxus cuspidata</i>	TIM	m <sup>3</sup>					15000	3000
<i>Taxus wallichiana</i>	EXT	kg	6					1.2
<b>THYMELAEACEAE</b>								
<i>Aquilaria beccariana</i>	TIP	m <sup>3</sup>			300			60
<i>Aquilaria crassna</i>	CHP	kg	180	277	392	118	343	262
<i>Aquilaria crassna</i>	DER	kg			100			20
<i>Aquilaria crassna</i>	LIV						1500	300
<i>Aquilaria crassna</i>	LOG	kg				3556		711.2
<i>Aquilaria crassna</i>	MED	kg			97			19.4
<i>Aquilaria crassna</i>	OIL	kg	0.1	47.3	2.5	0.6	33	16.7
<i>Aquilaria filaria</i>	CAR	kg					2000	400
<i>Aquilaria filaria</i>	CHP	kg	356556.5	228839.9	391997	336869.1	449389.5	352730.4
<i>Aquilaria filaria</i>	CHP				150	500	1495.5	429.1
<i>Aquilaria filaria</i>	DER	kg			803			160.6
<i>Aquilaria filaria</i>	MED	kg					10505	2101
<i>Aquilaria filaria</i>	OIL	kg			13	14	12	7.8
<i>Aquilaria filaria</i>	POW	kg	59328.6	200460	135171	304282.1	606226	261093.5
<i>Aquilaria filaria</i>	SPE	kg					1215	243
<i>Aquilaria filaria</i>	TIM	kg			4550	30452.5	39407	14881.9
<i>Aquilaria filaria</i>	TIP	kg	9890	6710	26450	133810.5	1945	35761.1
<i>Aquilaria malaccensis</i>	CAR	kg				50	1530.6	316.1
<i>Aquilaria malaccensis</i>	CHP	kg	251938.5	189793.4	177615.3	174516.5	231711.5	205115

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Aquilaria malaccensis</i>	CHP				590	200	218	201.6
<i>Aquilaria malaccensis</i>	DER	kg	2.3	3.8	574.3	11	0.1	118.3
<i>Aquilaria malaccensis</i>	LIV	kg				25		5
<i>Aquilaria malaccensis</i>	LIV					10	2800	562
<i>Aquilaria malaccensis</i>	MED	kg			944.5		206773	41543.5
<i>Aquilaria malaccensis</i>	OIL	kg	28.6	6	1270	71	245.5	324.2
<i>Aquilaria malaccensis</i>	OIL	l	388.6	114.6	86.3	68	120.8	155.7
<i>Aquilaria malaccensis</i>	OIL				7.9			1.6
<i>Aquilaria malaccensis</i>	POW	kg	49100	70786	35901	37873	79800	54692
<i>Aquilaria malaccensis</i>	SAW	kg			400		20000	4080
<i>Aquilaria malaccensis</i>	SPE					232		46.4
<i>Aquilaria malaccensis</i>	STE	kg			8.1	1	3.6	2.5
<i>Aquilaria malaccensis</i>	TIM	kg			3929	21159	22647.1	9547
<i>Aquilaria malaccensis</i>	TIP	kg	10259	14868	4553	73645	5875	21840
<i>Aquilaria microcarpa</i>	TIM	kg					7	1.4
<i>Aquilaria sinensis</i>	DER	kg	126.6	24.6	14.2			33.1
<i>Aquilaria spp.</i>	CHP	kg	5450.8	33200.3	205987.7	142439.6	162790.2	109973.7
<i>Aquilaria spp.</i>	DER	kg				6.8	23.9	6.1
<i>Aquilaria spp.</i>	EXT	kg				6.8		1.4
<i>Aquilaria spp.</i>	LIV		5	30000	50000			16001
<i>Aquilaria spp.</i>	MED	kg					18	3.6
<i>Aquilaria spp.</i>	OIL	kg	3.8	5.4	0.9			2
<i>Aquilaria spp.</i>	OIL	l	37.9	179.8	252.5	187.1	129.5	157.4
<i>Aquilaria spp.</i>	POW	kg		7500		81220	103500	38444
<i>Aquilaria spp.</i>	SAW	kg				10000		2000
<i>Aquilaria spp.</i>	STE	kg	89.2	21.2	12.8			24.6
<i>Aquilaria spp.</i>	TIM	kg				17982	11367.1	5869.8
<i>Aquilaria spp.</i>	TIP	kg		3954				790.8
<i>Aquilaria subintegra</i>	LIV						96050	19210
<i>Gonystylus bancanus</i>	CAR	kg		6683.9	5783.4		1276	2748.7
<i>Gonystylus bancanus</i>	CAR	m <sup>3</sup>	740	865.8	561.2	16644.8	352.4	3832.8
<i>Gonystylus bancanus</i>	DER	m <sup>3</sup>				16.8		3.4
<i>Gonystylus bancanus</i>	LIV	m <sup>3</sup>		20.3				4.1
<i>Gonystylus bancanus</i>	LOG	m <sup>3</sup>	188	287.9	60.1			107.2
<i>Gonystylus bancanus</i>	PLY	m <sup>3</sup>					962.7	192.5
<i>Gonystylus bancanus</i>	SAW	kg	1173337					234667.4
<i>Gonystylus bancanus</i>	SAW	m <sup>3</sup>	5761.5	929761.1	1806976.7	37553.9	173	556045.2
<i>Gonystylus bancanus</i>	SAW			10332				2066.4
<i>Gonystylus bancanus</i>	TIM	m <sup>3</sup>	1026.4	475	1478.4	1553.8	1168.4	1140.4
<i>Gonystylus bancanus</i>	TIP	m <sup>3</sup>	5747.4	3792.5	1166.3	1968.5	1624	2859.7
<i>Gonystylus bancanus</i>	TIP		2		2166.1			433.6
<i>Gonystylus bancanus</i>	VEN	m <sup>3</sup>					17.5	3.5
<i>Gonystylus forbesii</i>	SAW	m <sup>3</sup>	31.8					6.4
<i>Gonystylus forbesii</i>	TIP	m <sup>3</sup>	36					7.2
<i>Gonystylus spp.</i>	CAR	m <sup>3</sup>	113.3	0.8	94.8	864.7	507	316.1
<i>Gonystylus spp.</i>	CHP	kg					3700	740
<i>Gonystylus spp.</i>	FRN	m <sup>3</sup>	37.8					7.6
<i>Gonystylus spp.</i>	LIV	m <sup>3</sup>		9				1.8
<i>Gonystylus spp.</i>	OIL	l					10	2
<i>Gonystylus spp.</i>	PLY	m <sup>3</sup>	5.4					1.1
<i>Gonystylus spp.</i>	SAW	m <sup>3</sup>	3726.9	4431.8	159626.9	2032.1	2706.8	34504.9
<i>Gonystylus spp.</i>	TIM	m <sup>3</sup>	3369.6	1428.8	1456.1	1257.9	835.8	1669.6
<i>Gonystylus spp.</i>	TIP	m <sup>3</sup>	2639.4	2104.4		16.2		952
<i>Gyrinops audate</i>	CHP	kg					8160	1632
<i>Gyrinops ledermanii</i>	CHP	kg					7017	1403.4
<i>Gyrinops ledermanii</i>	SPE	kg					7017	1403.4
<i>Gyrinops spp.</i>	CHP	kg	72463.6	25990	3857	500.5	233.7	20609
<i>Gyrinops spp.</i>	POW	kg	9000	17000				5200

Taxon	Term	Unit	2007	2008	2009	2010	2011	Yearly Average
<i>Gyrinops</i> spp.	SPE	kg					19125	3825
<i>Gyrinops</i> spp.	TIP	kg		1090				218
<i>Gyrinops versteegii</i>	CHP	kg		10000	9920	127		4009.4
VALERIANACEAE								
<i>Nardostachys grandiflora</i>	DER	kg		64501	74398	45026	41557	45096.4
<i>Nardostachys grandiflora</i>	OIL	kg		220.5	51	713	947.6	386.4
<i>Nardostachys grandiflora</i>	ROO	kg					77380	15476
WELWITSCHIAEAE								
<i>Welwitschia mirabilis</i>	DPL				55			11
<i>Welwitschia mirabilis</i>	SPE				55	50		21
ZAMIACEAE								
<i>Macrozamia communis</i>	LIV		375					75
<i>Macrozamia communis</i>	LVS		70000					14000
<i>Macrozamia riedlei</i>	LIV		119	55	48	5		45.4
<i>Zamia acuminata</i>	LIV						10	2
<i>Zamia debilis</i>	LIV				400			80
<i>Zamia debilis</i>	SPE				520			104
<i>Zamia dressleri</i>	LIV						15	3
<i>Zamia furfuracea</i>	LIV			120				24
<i>Zamia furfuracea</i>	SPE			280				56
<i>Zamia integrifolia</i>	SPE				27			5.4
<i>Zamia lucayana</i>	SPE				176			35.2
<i>Zamia polymorpha</i>	LIV			40				8
<i>Zamia polymorpha</i>	SPE			266				53.2
<i>Zamia</i> spp.	LIV			80			40	24
<i>Zamia</i> spp.	SPE			270				54
<i>Zamia variegata</i>	LIV			10				2
<i>Zamia variegata</i>	SPE			125				25
ZYGOPHYLLACEAE								
<i>Bulnesia sarmientoi</i>	DER	kg				18952		3790.4
<i>Bulnesia sarmientoi</i>	EXT	kg				3990	347220	70242
<i>Bulnesia sarmientoi</i>	EXT						18299	3659.8
<i>Bulnesia sarmientoi</i>	LOG	kg				1079153	13285287	2872888
<i>Bulnesia sarmientoi</i>	LOG	m <sup>3</sup>				70.2	602.9	134.6
<i>Bulnesia sarmientoi</i>	OIL	kg				23560	80960	20904
<i>Bulnesia sarmientoi</i>	SAW	kg				2316900	2832337.5	1029847.5
<i>Bulnesia sarmientoi</i>	SAW	m <sup>3</sup>				180.2	314.3	98.9
<i>Bulnesia sarmientoi</i>	TIM	kg				7654509.5	500822	1631066.3
<i>Bulnesia sarmientoi</i>	TIM	m <sup>3</sup>				440.5	128327.9	25753.7
<i>Guaiacum coulteri</i>	TIM	m <sup>3</sup>	18.2					3.6
<i>Guaiacum officinale</i>	DPL			50	6			11.2
<i>Guaiacum officinale</i>	SPE				7			1.4
<i>Guaiacum officinale</i>	TIP	kg		48				9.6
<i>Guaiacum sanctum</i>	EXT	kg				2500		500
<i>Guaiacum sanctum</i>	LOG	kg			50000	100		10020
<i>Guaiacum sanctum</i>	LOG	m <sup>3</sup>	15.1		85.7			20.2
<i>Guaiacum sanctum</i>	SAW	kg	1076					215.2
<i>Guaiacum sanctum</i>	SAW	m <sup>3</sup>	75.1	7	165.7	271.4	175.1	138.8
<i>Guaiacum sanctum</i>	SPE				80			16
<i>Guaiacum sanctum</i>	TIM	m <sup>3</sup>	1769.2	59.1	56.6	58.9	28.4	394.4
<i>Guaiacum sanctum</i>	TIP	m <sup>3</sup>	12.8					2.6

### **Selection of species for inclusion in the Review of Significant Trade following CoP16: Extended analysis**

UNEP-WCMC has undertaken an extended analysis of the Appendix-II trade data with the aim of assisting the CITES Plants Committee with the task of species selection for the Review of Significant Trade. Species that may merit further consideration by the Parties on the basis of this analysis (methodology detailed below) are provided in Table 1.

#### **Methodology**

##### **Data used**

This more detailed analysis of gross exports in Appendix-II plant species covers trade data over the most recent ten-year period for which near-complete data is available (2002-2011). A longer time-period was deemed more appropriate to enable the identification of slopes and dispersion of trade levels, used for the analysis. As with the initial data output produced (see Annex 1 of the present document), terms traded at levels averaging less than one over the most recent five year period were excluded. Similarly, only trade data where the reported source was wild-collected, ranched, unknown or where there was no reported source were included. Trade at the genus level is included; however, trade reported at higher taxonomic levels (e.g. at the Family level) has been excluded.

As re-export data was not deemed to add relevant information to the analysis of the number of specimens taken for trade, only the data concerning direct exports was used in the analysis.

Since less than half of annual reports for 2012 had been received by UNEP-WCMC and included in the CITES Trade Database by the time of the data extraction (2 December 2013), data for 2012 were excluded from the extended analysis when temporal trends were analysed (e.g. sharp increase or overall increases/decreases over time) and have not been provided in Table 1. However, data for 2012 were analysed separately to determine if the trade reported to date meets the high volume thresholds. This process is described in more detail under "Criterion 6". The resulting dataset was subsequently filtered to include only the following Terms of trade:

- bark, carvings, chips, cultures, derivatives, dried plants, extract, flowers, flower pots, fruit, furniture, leaves, live, logs, plywood, powder, roots, sawn wood, seeds, stems, timber, timber carvings, timber pieces, veneer, and wax.

A full list of terms used is available in the CITES Trade Database interpretation guide<sup>1</sup>. Conversion factors were applied to enable a more meaningful analysis of the different units in which trade was originally reported. Units of trade were converted in order to standardise the data and facilitate the analysis as follows.

Converted from	Converted to
grams or milligrams	kilograms
millilitres	litres
centimetres	metres
cm <sup>2</sup> or ft <sup>2</sup>	m <sup>2</sup>
cm <sup>3</sup>	m <sup>3</sup>

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<sup>1</sup> A guide to using the CITES Trade Database: [http://www.unep-wcmc-apps.org/citestrade/docs/EN-CITES\\_Trade\\_Database\\_Guide.pdf](http://www.unep-wcmc-apps.org/citestrade/docs/EN-CITES_Trade_Database_Guide.pdf)

Parties often report timber in either kilograms or cubic metres. Therefore, prior to the creation of the gross export tables, timber reported in kilograms was converted to cubic metres where a conversion factor for the species was available from the CITES Identification Manual – see below:

Species	Mean specific weight
<i>Gonystylus</i> spp.	0.66 g/cm <sup>3</sup>
<i>Guaiacum sanctum</i>	1.23 g/cm <sup>3</sup>
<i>Guaiacum officinale</i>	1.23 g/cm <sup>3</sup>
<i>Pericopsis elata</i>	0.725 g/cm <sup>3</sup>
<i>Prunus africana</i>	0.74 g/cm <sup>3</sup>
<i>Swietenia humilis</i>	0.61 g/cm <sup>3</sup>
<i>Swietenia macrophyllia</i>	0.60 g/cm <sup>3</sup>
<i>Swietenia mahogani</i>	0.75 g/cm <sup>3</sup>

#### Species selection

The resulting dataset was then filtered using a set of criteria to extract the species showing noteworthy patterns of trade. The selection of species highlighted in this detailed analysis was derived using the analysis protocol depicted in Figure 1. Trade levels were analysed and selected as noteworthy according to six criteria designed to identify:

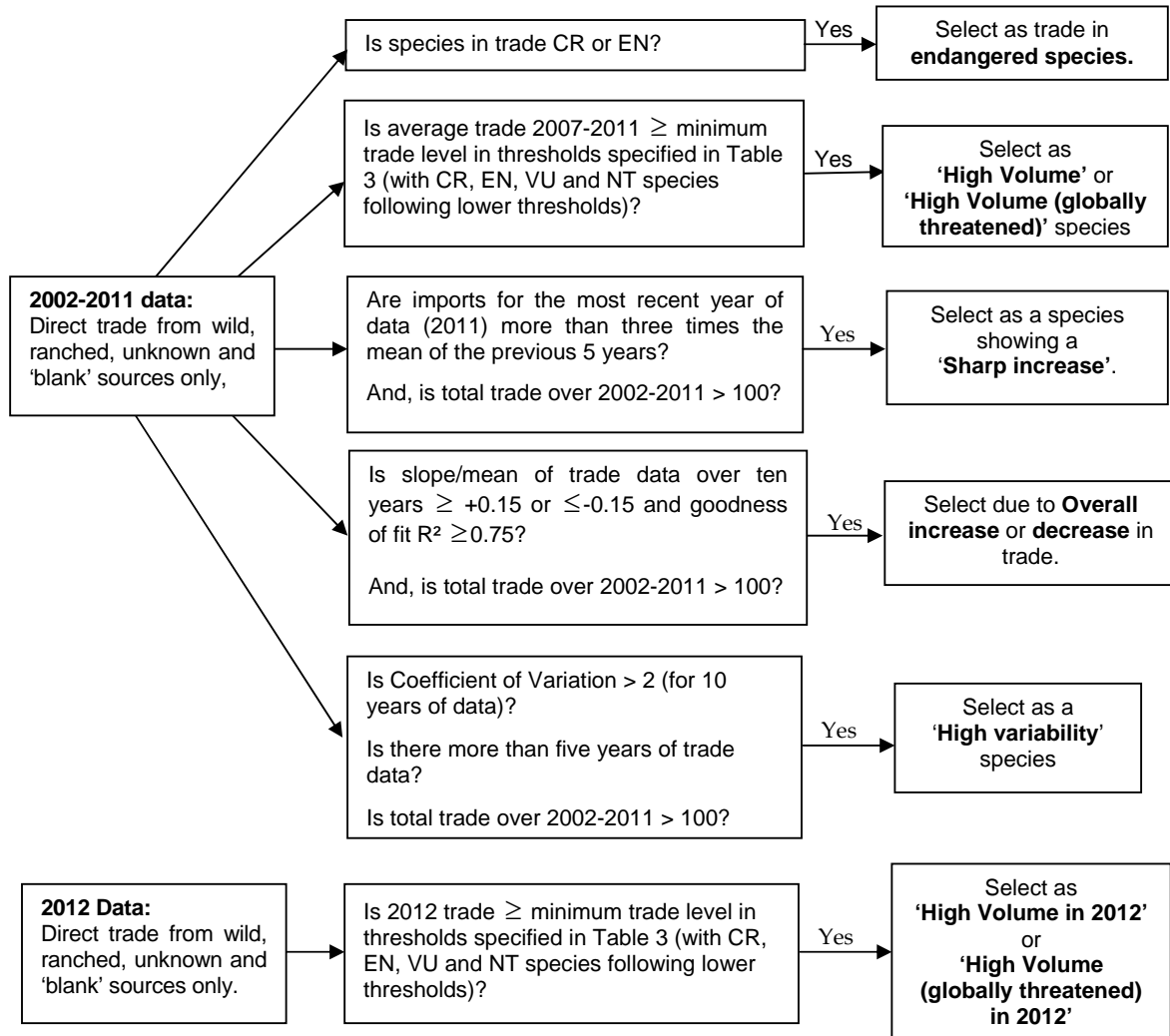
- **Trade in endangered species:** Species categorized in the *IUCN Red List of Threatened Species* as Critically Endangered (CR) or Endangered (EN) were automatically selected for inclusion in Annex 1.
- **High volume and high volume (globally threatened):** trade exceeding a set of minimum thresholds over the most recent five year period with near-complete data (2007-2011). Globally threatened and near-threatened species were assessed on the basis of lower thresholds.
- **Sharp increase** in trade in 2011 in comparison to the average over preceding five-year period (2006-2010);
- **Overall increase/decrease:** General long-term increases or decreases in trade over a ten-year period (2002-2011);
- **High variability:** Long-term variability in trade between 2002 and 2011; and
- **High volume (2012):** Preliminary assessment of species traded at high volumes in 2012.

Further details on these criteria are summarised in Figure 1, followed by a detailed description of each criterion.

Species that met at least one of the criteria are included in Table 1, along with the details of which criterion or criteria they met. To assist the CITES Plants Committee with the task of species selection for the Review of Significant Trade, UNEP-WCMC has provided additional information on species selected as part of this extended analysis in the Notes column. For instance, annotations are provided for species that were previously selected for review as part of the Review of Significant Trade following the 12th, 13th and 14th meetings of the Conference of the Parties and species that were newly listed on the CITES Appendices since 2002.



Figure 1: Flow chart for selection of candidate species for consideration in the Review of Significant Trade



Criterion 1: Trade in endangered species

Species threatened with extinction are assumed to be more adversely affected by high trade volumes and more susceptible to changes in trade patterns than non-threatened species. For this reason, species in trade that have been classified as Critically Endangered and Endangered on the IUCN Red List of Threatened Species were automatically selected for inclusion.<sup>2</sup> The standard selection criteria have also been applied to these species and when other criteria are met this is highlighted.

The global threat status was taken into consideration when applying the 'high volume' criterion (see Criterion 2).

It should be noted that not all species have been assessed in the IUCN Red List. Therefore, the higher trade thresholds will apply to these species by default as it cannot easily be determined whether or not these species are threatened.

<sup>2</sup> IUCN Red List of Threatened Species, [www.iucnredlist.org](http://www.iucnredlist.org). Data downloaded on 12 December 2013.

### Criterion 2: High volume and High volume (globally threatened)

Species qualified for inclusion in Table 1 on the basis of 'high volume trade' or 'high volume (globally threatened)' if the average level of gross direct exports during the five year period 2007-2011 exceeded pre-determined thresholds (see below). Terms with the same unit (e.g. number, m<sup>3</sup>) were combined in order to assess the high volume criterion. For instance, a species might meet the high volume criterion on the combination of trade in live, dried plants and stems.

Average minimum number of specimens from sources wild, ranched and unknown reported directly exported per year over the period 2007-2011 needed to qualify for selection on the basis of high trade volume.

Taxonomic group	High volume	High volume (*globally threatened)
Plants (non-tree)	5000	250
Plants (trees)	500 m <sup>3</sup>	250 m <sup>3</sup>

*\*Applies to species that are classified as Critically Endangered (CR), Endangered (EN), Vulnerable (VU) or Near Threatened (NT) according to the IUCN Red List.*

Thresholds used to determine high volume trade were lower for globally threatened species than for non-threatened species. The minimum trade level required to meet the high volume criteria was also adjusted for all species categorised as Critically Endangered ('CR'), Endangered ('EN'), Vulnerable ('VU') or Near Threatened ('NT') in the *IUCN Red List of Threatened Species*.

### Criterion 3: Sharp increase in trade volume in 2011

Species qualified on the basis of a sharp increase in trade if the volume of direct exports during 2011 was more than three times the average trade volume of the preceding five-year period (2006-2010) (see graphic below). Species that, despite a sharp increase in trade in 2011, were still only traded in very low volumes (i.e. totalling less than 100 over the entire period), were not selected on the basis of this criterion.

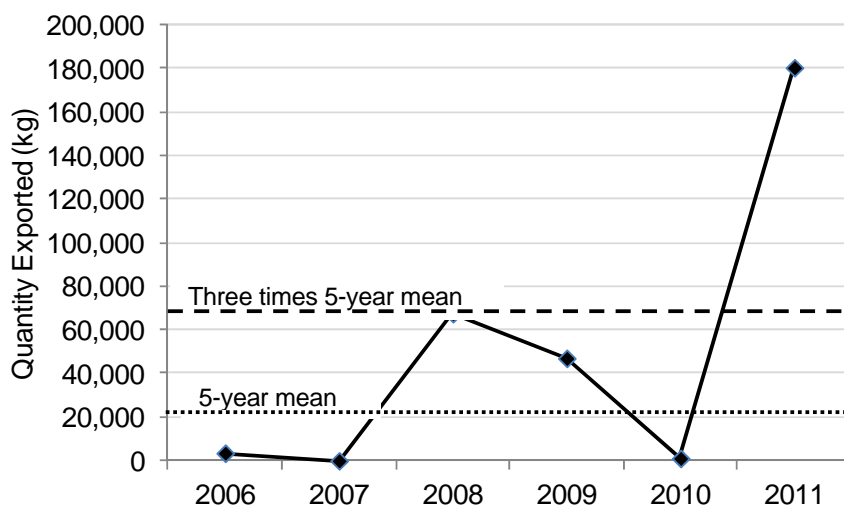


Illustration of the application of the 'sharp increase' criterion (direct gross exports).

### Criterion 4: Overall increase or decrease in trade levels 2002-2011

This criterion was included to take into account more general trends over the ten-year period 2002-2011 ('overall increase' and 'overall decrease'). General trends in trade for each taxon were identified by calculating the slopes of a best-fit linear function to the trade data, a large slope (positive or negative) indicating a notable change in trade levels over time (see graphic below).

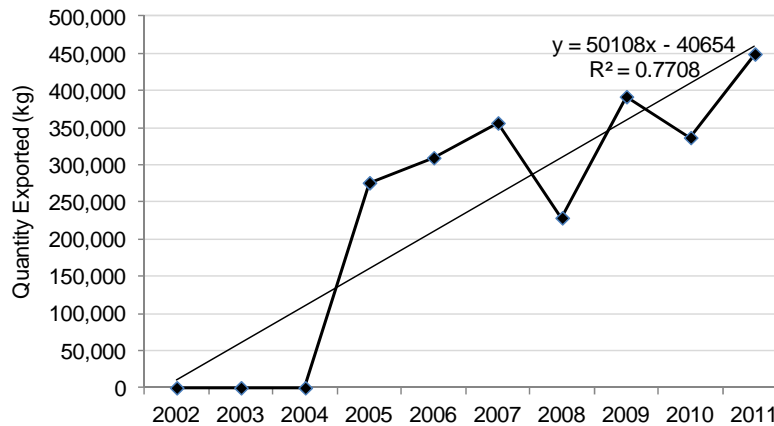


Illustration of the application of the 'overall increase' criterion (direct gross exports).

For the purpose of comparison between taxa, the value of the slope was divided by the mean level of trade (for the ten-year period in question) for each taxon. Following examination of the slope/mean values for all species, a cut-off threshold of  $\pm 0.15$  was chosen. That is to say, values below  $+0.15$  and above  $-0.15$  were considered small slopes, while higher values than  $+0.15$  and lower than  $-0.15$  were considered large slopes. The goodness of fit of the trend-line was also considered with only species with  $R^2$  values of greater than 0.75 retained in the final selection for overall increase or decrease ( $R^2$  is a commonly used criterion for goodness of fit with  $R^2=10$  being best fit).

Species that, despite a gradual increase or decrease in trade over this period, were still only traded in very low volumes (i.e. totalling less than 100 over the entire period), were not selected on the basis of this criterion. The date of CITES listing was also taken into consideration for this criterion.

#### Criterion 5: Highly variable trade levels 2002-2011

Trade levels in some species can be highly variable, with relatively high volumes being traded in some years and little or no trade reported in other years. Most trade patterns do not fit the linear slope pattern, as described in the section on 'overall increase or decrease' above. Therefore, it was considered that a species showing high variation in levels of trade over the period of analysis might need more attention than those showing fairly constant trade levels. For the purpose of this analysis, a ten-year period (2002-2011) was examined. In the case of species added to the CITES appendices within the period of analysis, only the years since its listing were analysed provided that at least five years of trade data were available.

A number of measures of spread exist but the most appropriate when comparing across groups with different means was considered to be the coefficient of variation (CV). The CV is calculated as the standard deviation divided by the mean. This coefficient can therefore be used to make comparisons among taxa, as division of the standard deviation by the mean removes the effect of differences in scale of the trade volumes to which different taxa are subject.

Following examination of the coefficients of variation shown by all species within the period of analysis, a cut-off value of  $+2$  was used to select candidate taxa. Thus, taxa whose levels of trade showed a coefficient of variation higher than  $+2$  (i.e. highly variable trade levels) were considered as potential candidates for selection.

As with the previous criterion, species that were traded in low numbers (totalling less than 100 units during 2002-2011) were not selected for further consideration. In addition, species that had five or less data-points were excluded as zero-trade volumes are confounded with no-data due to lack of reporting, so many species would be selected as showing artificially high variability.

#### Criterion 6: Preliminary analysis of 2012 data to detect high volume trade

As 2012 data was incomplete at the time of analysis (December 2013), it could not be subjected to the same analysis as other years of data (as the incompleteness of the data would affect the criteria that detect increases/decreases over time). However, on the basis of the existing data, a preliminary analysis was conducted to detect high volume trade in 2012. The high volume criterion applied differed slightly from the criterion applied to the main dataset. Instead of comparing the average of five years of data with the thresholds mentioned above, the 2012 data was assessed on its own to determine if the thresholds had been exceeded on the basis of trade reported to date. Individual terms traded at levels in excess of the high volume threshold in 2012 are provided in the Notes column when this criterion was met.

**Table 1: Flora taxa selected for consideration through the flowchart process.** Quantities rounded to the nearest whole number, when applicable. Data extracted from the CITES Trade Database 2 December 2013.

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
<b>Amaryllidaceae</b>												
<i>Galanthus elwesii</i>	live	5976530	5650000	5623600	5700000	5600000	5700000	5104120	5600000	4235840	5250000	High volume. Also met high volume criterion for 2012 (3,589,246 live).
<i>Galanthus woronowii</i>	live	14000285	20000000	20000000	19879750	20000000	17000020	16817942	17999195	10106242	18000000	High volume. Also met high volume criterion for 2012 (15,000,060 live). Selected at PC14 following CoP12 and reviewed at PC16 (PC16 Doc. 10.2).
<b>Anacardiaceae</b>												
<i>Operculicarya hyphaenoides</i>	live	0	0	0	0	0	0	0	0	0	275	Sharp increase. Listed in the CITES Appendices in 2010.
<b>Apocynaceae</b>												
<i>Hoodia gordonii</i>	derivatives	0	0	0	0	21057	366	12	0	150	0	High volume and sharp increase. Also met high volume criterion for 2012 (6019 powder (kg)). Listed in the CITES Appendices in 2005.
	derivatives (kg)	0	0	0	124	1248	66	299	66	68	1941	
	dried plants (kg)	0	0	0	941	4065	454	30031	0	0	0	
	extract	0	0	0	0	0	0	0	0	0	300	
	powder	0	0	0	0	0	0	0	0	3000	0	
	powder (kg)	0	0	0	14712	55694	23385	32485	2275	14815	6050	
	seeds	0	0	0	0	0	30010000	15000000	0	0	0	
stems (kg)	0	0	0	1479	630	0	0	200	0	0		
<i>Pachypodium makayense</i>	live	0	0	0	0	0	0	62	50	30	148	Sharp increase.
<i>Pachypodium</i> spp.	live	5	219	1929	1499	1159	884	777	220	351	497	High volume.
	seeds	3400	0	0	0	200	0	52000	0	0	0	
<i>Pachypodium succulentum</i>	live	500	458	362	40	0	40	0	0	0	30	Sharp increase. Selected at PC15 for trade review following CoP13.
<b>Araliaceae</b>												
<i>Panax quinquefolius</i>	roots (kg)	34807	34145	28345	24512	28043	25256	12993	46720	30890	22741	High volume. Also met high volume criterion for 2012 (21,273 roots (kg)).
<b>Bromeliaceae</b>												
<i>Tillandsia xerographica</i>	live	0	0	0	0	0	0	0	0	0	135	Sharp increase.
<b>Cactaceae</b>												
<i>Carnegiea gigantea</i>	stems (kg)	19560	0	0	0	0	0	0	0	0	5600	High volume and sharp increase. Reviewed for PC14.
	timber (kg)	2060	3350	0	0	0	0	0	0	0	2800	
	timber pieces	0	0	0	0	80000	40000	0	0	0	0	

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
<i>Copiapoa serpentisulcata</i>	live	0	0	0	0	0	0	0	30	0	0	EN Selected as trade in an endangered species.
<i>Corryocactus pulquinensis</i>	stems	0	0	0	300	0	750	400	0	0	0	EN Selected as trade in an endangered species.
<i>Echinopsis chamaecereus</i>	live	0	0	0	2	0	0	0	0	0	400	Sharp increase.
<i>Echinopsis chiloensis</i>	carvings	0	0	0	742	0	0	13299	9622	3722	440	High volume, sharp increase and overall decrease.
	dried plants	0	0	1	0	0	0	900	0	0	0	
	stems	39185	67432	51577	35312	36665	28180	3225	4925	500	300	
	stems (m)	0	0	0	0	0	15093	13703	10882	11684	5337	
	timber	0	0	0	0	0	0	0	0	2050	4825	
<i>Echinopsis hertrichiana</i>	live	0	0	0	0	0	10	0	0	0	0	EN Selected as trade in an endangered species.
<i>Echinopsis pachanoi</i>	powder (kg)	0	0	0	2	0	137	0	0	190	237	Sharp increase.
<i>Eulychnia acida</i>	carvings	0	0	0	2204	0	0	23163	22846	31115	12650	High volume and overall decrease. Also met high volume criterion for 2012 (12,865 carvings; 22,683 carvings (m); 6644 stems; 1402 stems (kg); 400 timber).
	derivatives	0	0	0	0	0	160	695	665	731	15	
	dried plants	0	0	0	0	0	0	0	1948	800	565	
	stems	152171	147616	136904	96958	101599	72911	12101	13810	2029	0	
	stems (m)	0	0	0	0	0	44612	38662	30269	32071	22112	
timber	0	0	0	0	0	0	0	0	3712	1720		
<i>Mammillaria plumosa</i>	live	0	0	0	0	0	0	0	0	0	600	NT Sharp increase.
<i>Obregonia denegrii</i>	seeds (kg)	0	0	0	0	0	200	0	0	0	0	EN Selected as trade in an endangered species.
<i>Opuntia ficus-indica</i>	dried plants (kg)	2950	0	3000	3000	0	2000	2000	2500	6000	0	High volume.
	flowers (kg)	1000	5255	3000	7020	9000	2000	9020	0	13828	13860	
<i>Opuntia imbricata</i>	stems (kg)	16000	0	0	0	0	0	0	0	0	6000	Sharp increase.
<i>Opuntia</i> spp.	stems (kg)	0	0	0	0	0	0	30000	45000	0	10678	High volume. Also met high volume criterion for 2012 (42,488 stems (kg)).
	timber (kg)	0	0	0	10723	0	54727	0	0	0	0	
	timber pieces (kg)	0	0	5000	13552	82100	75000	0	0	0	0	
<i>Opuntia streptacantha</i>	derivatives (kg)	0	0	0	0	0	0	0	0	0	500	Sharp increase.
<i>Oroya peruviana</i>	live	0	0	0	0	0	20	0	0	0	0	EN Selected as trade in an endangered species.
<i>Pachycereus marginatus</i>	stems	0	0	0	0	0	0	0	0	0	1000	Sharp increase.
<i>Selenicereus grandiflorus</i>	flowers (kg)	0	0	4000	0	0	0	0	0	0	6000	Sharp increase.
<b>Cyatheaceae</b>												
<i>Cyathea arborea</i>	fibres (m <sup>3</sup> )	118	189	139	0	0	26	0	0	0	117	Sharp increase.
<i>Cyathea concinna</i>	stems (kg)	0	0	23200	0	0	0	0	0	0	6677	Sharp increase.
<i>Cyathea contaminans</i>	carvings	0	0	0	0	0	0	0	160	0	0	High volume. Also met high volume criterion for 2012 (11,000 timber (kg)). Selected at PC14 following CoP12 and reviewed at PC16 (PC16 Doc. 10.2).
	chips (kg)	0	0	0	0	0	0	56700	43560	0	0	
	derivatives	0	0	0	0	0	1250	0	183898	0	0	
	stems	0	48726	0	0	0	42700	0	0	0	0	

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
	stems (kg)	195984	172668	53500	0	69986	77150	0	0	28000	0	
	timber (kg)	866780	978965	400000	0	0	505142	299550	0	241469	187927	
<i>Cyathea cunninghamii</i>	live	3074	3601	1127	10	25	23	0	0	5	156	Sharp increase. Reviewed for PC14.
<i>Cyathea smithii</i>	live	4115	535	603	211	153	0	95	130	0	243	Sharp increase and high variability.
<i>Cyathea</i> spp.	carvings	0	166	12	4	1	181	0	0	2	0	High volume and high variability.
	dried plants	0	0	163	38	109	218	25074	25011	10	91	
	dried plants (kg)	1826	14400	11400	6720	17624	14308	5990	4000	0	1950	
	live	0	53	8	8000	0	260	0	0	246	0	
	timber	0	0	0	0	0	150	0	0	0	0	
<b>Cycadaceae</b>												
<i>Cycas revoluta</i>	leaves	0	0	0	0	0	0	0	0	0	22100	
	live	0	0	0	0	0	7	295	8946	48000	78690	High volume, sharp increase and high variability. Also met high volume criterion for 2012 (291,260 live).
	live (kg)	0	0	0	0	0	0	0	0	0	1253430	
	stems	0	0	0	0	0	0	0	0	0	600	
<b>Dicksoniaceae</b>												
<i>Cibotium barometz</i>	dried plants	0	0	0	0	0	0	0	0	1796500	0	
	dried plants (kg)	97000	66000	56500	136000	3500	0	67500	47000	1100	180300	
	live (kg)	0	0	0	0	0	0	0	0	1000	0	High volume and sharp increase. Selected at PC14 following CoP12 and reviewed at PC16 (PC16 Doc. 10.2).
	roots (kg)	151809	4000	10000	0	75522	61000	68500	87196	146976	0	
	timber	0	0	0	0	0	0	0	0	500	0	
	timber (kg)	0	0	0	0	0	500	0	0	0	0	
<i>Dicksonia</i> spp.	live	0	0	0	5	350	133832	0	0	0	0	High volume.
<b>Euphorbiaceae</b>												
<i>Euphorbia abdelkuri</i>	dried plants (kg)	0	0	0	0	0	0	0	70	0	0	EN Selected as trade in an endangered species.
<i>Euphorbia ankarensis</i>	live	0	52	159	275	95	82	0	0	10	0	EN Selected as trade in an endangered species.
<i>Euphorbia antiquorum</i>	wax (kg)	0	0	0	0	0	0	0	34000	0	15000	High volume.
<i>Euphorbia antisiphilitica</i>	dried plants (kg)	0	0	0	0	0	0	15000	0	0	0	
	extract	0	0	0	0	0	0	0	1422	3257	0	High volume, sharp increase and overall increase. Also met high volume criterion for 2012 (23,000 extract (kg); 1,700,315 wax (kg) and 19,500 wax).
	extract (kg)	0	0	0	0	19500	0	0	10061	40	1000	
	wax	0	0	0	0	0	0	0	10368	3732	20000	
	wax (kg)	208000	191525	417151	423000	393525	689200	1005865	1625521	1777703	1572474	
<i>Euphorbia bupleurifolia</i>	live	0	0	0	0	0	5	0	0	0	755	Sharp increase.
<i>Euphorbia croizatii</i>	live	0	5	3	50	102	200	0	0	0	0	EN Selected as trade in an endangered species.
<i>Euphorbia geroldii</i>	live	0	1	0	0	7	2120	0	0	0	0	CR High volume (globally threatened). Selected as trade in an endangered species.





Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
	timber	0	0	0	0	0	0	140	0	21	0	high volume criterion for 2012 (63367 timber (m <sup>3</sup> ); 136 timber). Selected at PC17 following CoP14 and reviewed for PC19 (PC19 Doc. 12.3).
	timber (m <sup>3</sup> )	11639	15445	11553	16111	20726	27153	22694	13473	12687	12043	
	veneer (m2)	0	0	0	0	4099	3953	0	0	0	0	
	veneer (m <sup>3</sup> )	0	0	0	0	0	0	0	5	5	10	
<i>Pterocarpus santalinus</i>	timber (kg)	0	96000	0	0	0	25000	177490	28600	13073	0	EN High volume (globally threatened) and as trade in an endangered species. Selected at PC15 for trade review following CoP13.
<b>Liliaceae</b>												
<i>Aloe arborescens</i>	extract (kg)	0	79438	13400	6000	0	0	10600	13260	8515	7800	High volume.
	leaves (kg)	0	0	0	0	0	0	0	7000	0	0	
	live	0	0	0	3000	0	200	0	0	0	0	
<i>Aloe ferox</i>	dried plants	7000	13050	20735	1500	0	0	0	6820	11660	1500	High volume and overall decrease. Also met high volume criterion for 2012 (135,892 extract (kg); 43,455 leaves).
	dried plants (kg)	80	2	0	0	0	0	0	0	500	0	
	extract	43140	42314	17587	24205	55312	16031	22154	12265	15466	14670	
	extract (kg)	342713	444094	381137	439412	618114	419912	366288	390441	479135	566872	
	extract (l)	149688	130294	119442	102641	55884	85253	51050	62031	66788	34805	
	leaves	12950	120377	85590	74856	71900	108190	66425	60981	118300	100060	
	leaves (kg)	0	5000	0	3000	6882	24043	33115	10100	15890	4500	
	live	0	0	0	25	0	202	1	0	0	0	
	stems	83349	0	0	3692	0	0	0	0	9606	0	
<b>Meliaceae</b>												
<i>Swietenia macrophylla</i>	carvings	0	19	50	2	1	0	0	7102	0	0	High volume and high variability. Also met high volume criterion for 2012 (6928 timber (m <sup>3</sup> )). Selected at PC17 following CoP14 and reviewed for PC19 (PC19 Doc. 12.3).
	carvings (kg)	0	0	0	0	0	0	0	455	0	0	
	carvings (m <sup>3</sup> )	0	0	0	0	2	0	0	391	0	3	
	derivatives (kg)	0	0	0	0	0	0	1361	0	0	0	
	leaves	0	0	100	0	0	0	0	10	0	0	
	timber	0	0	54	9	0	0	13010	0	0	0	
	timber (m2)	0	0	0	0	0	0	2000	37	0	0	
	timber (m <sup>3</sup> )	0	12737	342364	47431	39149	30309	33982	12713	57656	7487	
	veneer (m2)	0	0	0	0	0	14900	3340	0	0	0	
	veneer (m <sup>3</sup> )	0	0	30	16	14	0	66	6	0	17	
<i>Swietenia mahagoni</i>	timber (m <sup>3</sup> )	0	64	0	0	0	24	0	0	0	0	EN Selected as trade in an endangered species.
	veneer (kg)	0	0	7	0	0	0	14	10	0	6	
<i>Swietenia</i> spp.	live	0	0	0	0	0	0	0	0	0	9891	High volume and sharp increase.
<b>Nepenthaceae</b>												
<i>Nepenthes truncata</i>	live	0	0	0	1	0	20	0	0	0	0	EN Selected as trade in an endangered species.

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes	
<b>Orchidaceae</b>													
<i>Brassia caudata</i>	live	2	109	62	6	10	4	0	0	0	50	Sharp increase.	
<i>Dendrobium chrysotoxum</i>	live (kg)	0	0	0	0	80000	150000	0	0	0	0	High volume.	
	roots (kg)	0	0	0	0	0	7000	0	0	0	0		
<i>Dendrobium moschatum</i>	live (kg)	0	0	0	0	91000	150000	0	0	0	0	High volume.	
<i>Dendrobium</i> spp.	live (kg)	0	0	0	0	0	100000	0	0	0	0	High volume. Selected as part of the review of medicinal plants following PC9.	
<i>Dinema polybulbon</i>	live	0	118	131	38	2	0	0	26	0	50	Sharp increase.	
<i>Encyclia bractescens</i>	live	695	941	703	680	200	0	0	200	0	0	Overall decrease.	
<i>Encyclia caicensis</i>	dried plants	0	0	0	0	0	0	0	9	0	0	EN Selected as trade in an endangered species.	
<i>Encyclia fragrans</i>	live	34	25	4	100	6	6	0	0	0	50	Sharp increase.	
<i>Lepanthes</i> spp.	live	18	30	0	100	1	0	0	0	0	15	Sharp increase.	
<i>Maxillaria</i> spp.	live	1	9	1	104	4	0	0	1	0	40	Sharp increase and high variability.	
<i>Neobathia grandidierana</i>	live	3	9	0	80	1	0	1	0	0	10	Sharp increase and high variability.	
<i>Neolehmannia difformis</i>	live	2	241	100	2	4	10	0	0	0	25	Sharp increase and high variability.	
<i>Oncidium</i> spp.	live	1000	31	20	1	2	0	1	50	0	130	Sharp increase and high variability.	
<i>Phalaenopsis amabilis</i>	live	0	0	0	0	30	0	0	0	0	80	Sharp increase.	
<i>Schomburgkia</i> spp.	live	300	0	0	200	0	0	0	30	0	30	Sharp increase.	
<i>Vanilla</i> spp.	live	4	6	4	3	0	3	0	0	0	2600	Sharp increase and high variability.	
<b>Palmae</b>													
<i>Lemurophoenix halleuxii</i>	seeds (kg)	0	0	0	0	3800	100	0	0	0	0	2	EN Selected as trade in an endangered species and high variability. Listed in the CITES Appendices in 2003. Selected at PC17 following CoP14 and reviewed for PC19 (PC19 Doc. 12.3).
<i>Ravenea rivularis</i>	live	0	15448	28579	19342	2974	541	1200	12	0	0	EN High volume (globally threatened) and as trade in an endangered species. Also met high volume criterion for 2012 (2000 seeds (kg)). Listed in the CITES Appendices in 2003. Selected at PC17 following CoP14 and reviewed for PC19 (PC19 Doc. 12.3).	
	seeds (kg)	0	1500	4058	3475	4570	8925	3675	4350	5825	7250		
<i>Satranala decussilvae</i>	seeds (kg)	0	0	0	0	205	94	2	2	0	0	EN Selected as trade in an endangered species and high variability. Listed in the CITES Appendices in 2003. Selected at PC17 following CoP14 and reviewed for PC19 (PC19 Doc. 12.3).	
<b>Portulacaceae</b>													
<i>Avonia quinaria alstonii</i>	live	0	0	0	0	0	0	0	0	0	635	Sharp increase.	
<b>Primulaceae</b>													

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
<i>Cyclamen cilicium</i>	live	250000	250000	250500	250075	250000	250000	207843	108995	68800	40380	High volume. Also met high volume criterion for 2012 (36010 live).
<i>Cyclamen coum</i>	live	600160	500000	530000	500000	600000	500070	415560	402515	331400	300795	High volume. Also met high volume criterion for 2012 (119595 live). Listed in the CITES Appendices in 2007. Reviewed for PC14.
<i>Cyclamen hederifolium</i>	live	1275000	1250050	1001430	1000000	900000	800120	729160	373550	261350	30	High volume and overall decrease. Reviewed for PC14.
<b>Rosaceae</b>												
<i>Prunus africana</i>	bark	0	0	0	0	0	0	10	132	0	0	High volume. Also met high volume criterion for 2012 (525521 bark (kg); 51,750 derivatives). Selected at PC11 following CoP11 and reviewed at PC16 (PC16 Doc. 10.2).
	bark (kg)	464565	799253	2099399	2752627	1877504	1009300	641800	604725	129600	635886	
	extract (kg)	800	758	738	606	722	47	669	639	20	0	
	leaves	0	0	0	0	0	130	60	0	0	0	
	powder (kg)	208300	234000	0	59000	595000	706500	0	0	0	0	
	timber	0	0	0	0	0	0	240	0	0	0	
<b>Taxaceae</b>												
<i>Taxus cuspidata</i>	extract (kg)	0	0	0	0	0	36	0	0	60	60	Sharp increase. Listed in the CITES Appendices in 2005.
	timber (m <sup>3</sup> )	0	0	0	0	0	50	0	0	0	15000	
<i>Taxus wallichiana</i>	extract (kg)	3	50000	0	0	180	6	0	0	0	0	EN Selected as trade in an endangered species. Selected at PC15 for trade review following CoP13.
<b>Thymelaeaceae</b>												
<i>Aquilaria crassna</i>	chips (kg)	0	0	0	78	86	180	277	392	118	343	CR High volume (globally threatened), sharp increase in trade and as trade in an endangered species. Also met high volume criterion for 2012 (1000 live). Listed in the CITES Appendices in 2005.
	derivatives (kg)	0	0	0	0	0	0	0	100	0	0	
	live	0	0	0	0	0	0	0	0	0	1500	
	timber (kg)	0	0	0	40	9	0	0	0	0	3556	
<i>Aquilaria filaria</i>	carvings (kg)	0	0	0	0	0	0	0	0	0	2000	High volume, sharp increase and overall increase. Also met high volume criterion for 2012 (14818 chips (kg); 1500 powder (kg) and 32,815 timber (kg)). Listed in the CITES Appendices in 2005.
	chips	0	0	0	0	0	0	0	150	500	1496	
	chips (kg)	0	0	0	276015	309744	356557	228840	391997	336869	449390	
	derivatives (kg)	0	0	0	0	0	0	0	803	0	0	
	powder (kg)	0	0	0	91765	206051	59329	200460	135171	304282	606226	
	timber (kg)	0	0	0	0	0	9890	6710	26450	133811	41352	
<i>Aquilaria malaccensis</i>	carvings (kg)	0	0	0	0	0	0	0	0	50	1531	VU High volume (globally threatened), sharp increase and high variability. Also met high volume criterion for 2012 (25,654 timber (kg); 41,515 chips (kg)).
	chips	0	0	0	0	0	0	0	590	200	218	
	chips (kg)	205388	387669	263746	181489	205471	251938	189793	177615	174517	231712	
	derivatives (kg)	0	0	0	5	5	2	4	574	11	0	
	live	0	6	0	0	0	0	0	0	10	2800	
	powder (kg)	0	19801	5000	27000	19619	49100	70786	35901	37873	79800	
<i>Aquilaria spp.</i>	timber (kg)	0	0	0	0	411	10259	14868	4553	73645	28522	
	chips (kg)	0	170	1409	239184	253988	5451	33200	205988	142440	162790	High volume and sharp increase. Sharp increase (in powder) may relate to
	live	0	0	0	0	0	5	30000	50000	0	0	

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
	powder (kg)	0	0	0	21000	30985	0	7500	0	81220	103500	variation in reporting powder and chips (kg). Listed in the CITES Appendices in 2005.
	stems (kg)	0	0	0	0	189	89	21	13	0	0	
	timber (kg)	0	0	0	0	75	0	3954	0	27982	11367	
<i>Aquilaria subintegra</i>	live	0	0	0	0	0	0	0	0	0	96050	High volume and sharp increase. Also met high volume criterion for 2012 (3210 live; 4301 chips). Listed in the CITES Appendices in 2005.
<i>Gonystylus bancanus</i>	carvings (kg)	0	0	0	0	0	0	6684	5783	0	1276	High volume and high variability. Also met high volume criterion for 2012 (764 timber (m <sup>3</sup> ); 231 carvings (m <sup>3</sup> )).
	carvings (m <sup>3</sup> )	0	0	0	34	6085	740	866	561	16645	352	
	timber	0	0	0	0	0	2	10332	2166	0	0	
	timber (m <sup>3</sup> )	0	0	0	3623	8195	11509	930633	1808597	39108	2648	
<i>Gonystylus</i> spp.	carvings (m <sup>3</sup> )	0	0	0	12368	3702	151	1	95	865	507	High volume, sharp increase (in chips (kg)) and high variability. Also met high volume criterion for 2012 (14,770 m <sup>3</sup> timber).
	chips (kg)	0	0	0	0	0	0	0	0	0	3700	
	timber (m <sup>3</sup> )	0	0	0	38704	7934	6366	6251	161083	2398	2707	
<i>Gyrinops audate</i>	chips (kg)	0	0	0	0	0	0	0	0	0	8160	Sharp increase. Listed in the CITES Appendices in 2005.
<i>Gyrinops ledermanii</i>	chips (kg)	0	0	0	0	0	0	0	0	0	7017	Sharp increase. Listed in the CITES Appendices in 2005.
<i>Gyrinops</i> spp.	chips (kg)	0	0	0	22700	64543	72464	25990	3857	501	234	High volume. Listed in the CITES Appendices in 2005.
	powder (kg)	0	0	0	0	33250	9000	17000	0	0	0	
	timber (kg)	0	0	0	0	0	0	1090	0	0	0	
<b>Valerianaceae</b>												
<i>Nardostachys grandiflora</i>	derivatives (kg)	0	0	0	0	0	0	64501	74398	45026	41557	High volume and sharp increase.
	roots (kg)	0	0	0	0	0	0	0	0	0	77380	
<b>Zamiaceae</b>												
<i>Macrozamia communis</i>	leaves	0	0	0	0	0	70000	0	0	0	0	High volume. Review of Significant Trade in cycads published in 2003.
	live	0	0	70	150	121	375	0	0	0	0	
<i>Zamia dressleri</i>	live	0	0	0	2	0	0	0	0	0	15	EN Selected as trade in an endangered species. Selected at PC10.
<i>Zamia furfuracea</i>	live	3500	0	28000	1000	0	0	120	0	0	0	EN Selected as trade in an endangered species. Selected at PC10.
<i>Zamia variegata</i>	live	0	0	0	0	0	0	10	0	0	0	EN Selected as trade in an endangered species. Selected at PC10.
<b>Zygophyllaceae</b>												
<i>Bulnesia sarmientoi</i>	derivatives (kg)	0	0	0	0	0	0	0	0	18952	0	NT High volume (globally threatened) and

Taxon	Term	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	*IUCN Notes
	extract	0	0	0	0	0	0	0	0	0	18299	sharp increase. Also met high volume criterion for 2012 (12,655,292 timber (kg); 19000 extract (kg)). Listed in the CITES Appendices in 2008.
	extract (kg)	0	0	0	0	0	0	0	0	3990	347220	
	timber (kg)	0	0	0	0	0	0	0	0	10113909	16618447	
	timber (m <sup>3</sup> )	0	0	0	0	0	0	0	0	621	129245	
<i>Guaiacum officinale</i>	dried plants	0	0	0	0	0	0	50	6	0	0	EN Selected as trade in an endangered species. Discussed as part of review of medicinal plants following PC9.
<i>Guaiacum sanctum</i>	extract (m <sup>3</sup> )	0	0	0	0	0	0	0	0	2500	0	EN High volume (globally threatened). Selected as trade in an endangered species. Discussed as part of review of medicinal plants following PC9.
	timber (m <sup>3</sup> )	232	162	149	100	137	1769	59	251	271	175	

\* Only IUCN classifications applicable to the selection process are provided: Critically Endangered ('CR'), Endangered ('EN'), Vulnerable ('VU') or Near Threatened ('NT'). IUCN data downloaded from [www.iucnredlist.org](http://www.iucnredlist.org) on 12 December 2013.