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

Eighteenth meeting of the Plants Committee
Buenos Aires (Argentina), 17-21 March 2009

Proposals for possible consideration at CoP15

Proposals to amend the Appendices

PERIODIC REVIEW OF PLANT SPECIES INCLUDED IN THE CITES APPENDICES

1. This document has been submitted by Switzerland as chair of the intersessional working group coordinating and monitoring the Periodic Review of the Appendices (PC17 WG5)[*].

Introduction

2. The Periodic Review of the Appendices is designed to review species already included in the Appendices to determine whether their listings continue to be appropriate based on the guidelines of Resolution Conf. 14.8 Periodic Review of the Appendices. It is important for a positive conservation impact of the Convention with effective allocation of resources, as well as for the credibility of the Convention, that the CITES Appendices reflect actual conservation needs of species in trade, regulate all relevant parts and derivatives, and do not include species that do not benefit from such protection or parts and derivatives thereof with no significant impact on harvest from the wild. Especially if the conservation status of a species has improved, or international trade has shifted to other species or commodities, this should be reflected by the provisions of CITES as closely as possible. Therefore the Periodic Review of the Appendices is an important process of CITES.

Background

3. According to Resolution Conf. 11.1 (Rev. CoP13), Establishment of Committees, under the first RESOLVES in Annex 2, paragraph h). The Plants Committee should undertake a periodic review of plant species included in the CITES Appendices by establishing a schedule for conducting the reviews, identifying problems, consulting Parties on the need to review specific species and seeking their assistance, and preparing and submitting amendment proposals resulting from the reviews, through the Depositary Government, for consideration at meetings of the Conference of the Parties.

4. At the 12th meeting of the Conference of the Parties (Santiago, 2002), Parties adopted Decision 12.96 requesting the Standing Committee to "develop mechanisms to obtain greater involvement of the range States in the Periodic Review of the Appendices and provide guidance to reach a clear recommendation after the completion of the review."

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

5. At the 49th meeting of the Standing Committee (Geneva, 2003), the Committee adopted document SC49 Doc. 20.1 containing recommendations for the implementation of Decision 12.96, which was further discussed at the 50th meeting of the Standing Committee (Geneva, 2004). At its 51st meeting (Bangkok, 2004), the Standing Committee adopted comprehensive recommendations on the Periodic Review of the Appendices.

6. At its 15th meeting (Geneva, 2005), the Plants Committee agreed to a list of taxa to be reviewed during the two intersessional periods between meetings of the Conference of the Parties (CoP13 and CoP15) and established an intersessional working group (WG). The list was modified after the meeting, at the request of the Chair of the WG (WG5), and agreed via correspondence.

7. The Secretariat, through Notification No. 2005/037 of 19 July 2005, communicated to the Parties the list of candidate taxa for review agreed by the Plants Committee. Range States of these species were requested to send their comments on the need to review these species by 18 September 2005. Mexico was the only range State to reply.

8. After Notification to the Parties No. 2005/037, the Chair of the WG specifically contacted a number of range States: Argentina, Bolivia, Brazil, India, Madagascar and Peru. Argentina, Brazil and Madagascar responded and submitted contributions, established contacts of national experts or requested further information.

9. At its 16th meeting (Lima, 2006), the Plants Committee finalized the selection of taxa to be reviewed up to CoP15.

10. The Chair of the WG asked for reports on the state of reviews, via e-mail of 14 March 2007, in order to prepare a progress report for CoP14. The progress report is contained in document CoP14 Inf. 11. As there was no significant progress up to the 17th meeting of the Plants Committee, the report still largely applied and was included in Annex 4 of PC17 Doc 11 in an updated version.

11. At CoP14 (The Hague, 2007), a number of species proposals for changes in the Appendices were adopted based on completed reviews of certain taxa (see document PC17 Doc 11, Annex 1, paragraph A).

12. Document CoP14 Doc. 66 concluded that the procedure established by the Standing Committee for the conduct of a Periodic Review of the Appendices is complex and impractical. This led to the adoption of Resolution Conf. 14.8 (*Periodic Review of the Appendices*).

    According to Resolution Conf. 14.8

    a) The Animals and Plants Committees should share their experience, especially during joined meetings, regarding the undertaking of periodic reviews of taxa included in the Appendices (including financing of reviews, processes, format and outputs); and

    b) The Animals and Plants Committees shall establish a schedule for the Periodic Review of the Appendices and identify a list of taxa they propose to review during the next two intersessional periods between meetings of the Conference of the Parties (CoP). The list should be established at their first meting after the meeting of the Conference of the Parties that initiates the review period.

13. The Standing Committee at its 55th meeting (The Hague, 2007) endorsed the list of taxa to be reviewed before CoP15, with the exception of species deleted from the Appendices or transferred from one Appendix to another at CoP14. This was notified by the Secretariat through Notification to the Parties No. 2008/004 of 28 January 2008.

14. During the 17th meeting of the Plants Committee (Geneva, 2008), some progress was reported by Parties (see Annex 1). An intersessional Working Group was (re-)established (Annex 6) and given a new mandate [see paragraphs 17 and 18 below (PC17 summary record)].

15. The Secretariat published Notification to the Parties No. 2008/049 of 30 July 2008 on behalf of the Plants Committee, comprised of taxa that still required reviews and their range States. Reviews were

due to the Chairman of the Working Group by 15 November 2008. The Notification also requested Parties to submit to the Secretariat information regarding available funds to undertake reviews.

16. The Chair asked for updates on reviews for his report to PC18 with an e-mail of 17 November 2008 to members and experts of the WG and circulated draft guidelines for consideration to Resolution Conf. 14.8, Periodic Review of the Appendices, for comments. A progress report is contained in Annex 1 and draft guidelines are contained in Annex 2.

New mandate and schedule established at PC17

17. The WG will coordinate and monitor the Periodic Review and submit a report at PC18 (Buenos Aires, 2009).

18. The WG should draft guidelines up to PC18, indicating under which circumstances experts may be contracted for reviews of plant taxa.

Progress report and draft guidelines for consideration of PC 18

19. A Progress report is contained in Annex 1. Reviews of *Tillandsia harrisii* by Guatemala and *Podocarpus parlatorei* by Argentina are included in Annexes 3 and 4. According to these reviews, both species are appropriately listed in the Appendices. The Plants Committee must now finalize the review process for these species (paragraph g of Resolution Conf. 14.8 on *Periodic Review of the Appendices*).

20. Draft guidelines for Periodic Review of the Appendices are contained in Annex 2. The Plants Committee is requested to discuss the guidelines and draft a final version at PC18, which will then be discussed with the Animals Committee. The Committees will then decide on a possible document and agenda item for CoP15.

Comments

21. It has to be emphasized that part of the mandate after CoP13 is completed and that many experts submitted excellent reports and some Parties submitted proposals to CoP14 for amendments of the Appendices. The Chair of the Working Group wishes to thank all the people involved in the work that has been completed or is still under way and was reported at, and following PC17 (see Annex 1).

22. However, the current approach has yielded few results for a great majority of the species that were selected for review (Annex 1, diagram 1). Whereas certain taxa were reviewed and duly followed up after CoP13, the list of taxa for review is currently reduced to a large number of "orphan taxa" (see document PC17 Doc. 11, page 2), (i.e. taxa with no country responsible and no experts assigned yet, or with no responses from reviewers to correspondence from the Chairman, or with reports of reviewers on difficulties in obtaining relevant data).

23. The lack of further progress shows that the Periodic Review of the Appendices is laborious and would benefit from incentives to accomplish the reviews by Parties and/or stakeholders. Therefore a new approach with more binding mechanisms and allocation of resources is suggested.

PROGRESS REPORT TO PC18

Progress reported at PC17

Argentina is considering submitting a proposal to CoP15 to downlist *Podocarpus parlatorei* from Appendix I to Appendix II with an appropriate annotation for parts and derivatives.

South Africa is preparing proposals to delete *Orothamnus zeyheri* and *Protea odorata* from Appendix II for consideration at CoP15.

Namibia is preparing a report on the review of *Welwitschia mirabilis* for consideration of PC18.

The review of *Euphorbia antisyphilitica* by Mexico is under way and the review of *Agave victoriae-reginae* will probably be initiated in the near future.

The Netherlands offered to review *Cycas beddomei*.

A possible voluntary expert for the review of the 10 Malagasy *Euphorbia* spp. in Appendix I was identified and France will ask for the expert's cooperation.

Brazil is reviewing the status of conservation and trade in the Brazilian species of the Bromeliaceae family (*Tillandsia kautskyi*, *T. sucrei* and *T. sprengeliana*). The information would be sent to the chairman of the WG.

The United States of America intends to continue with the review of *Sclerocactus* spp., subject to available funding. The United States will also contribute to the review of *Euphorbia antisyphilitica* by Mexico.

Thailand clarified that it was not a range State of *Dioscorea deltoidea* as it appeared in Annex 5 of document PC17 Doc. 11.

Decisions of PC 17

Retain *Agave parviflora* in Appendix I (Review completed).

Progress reported after PC 17

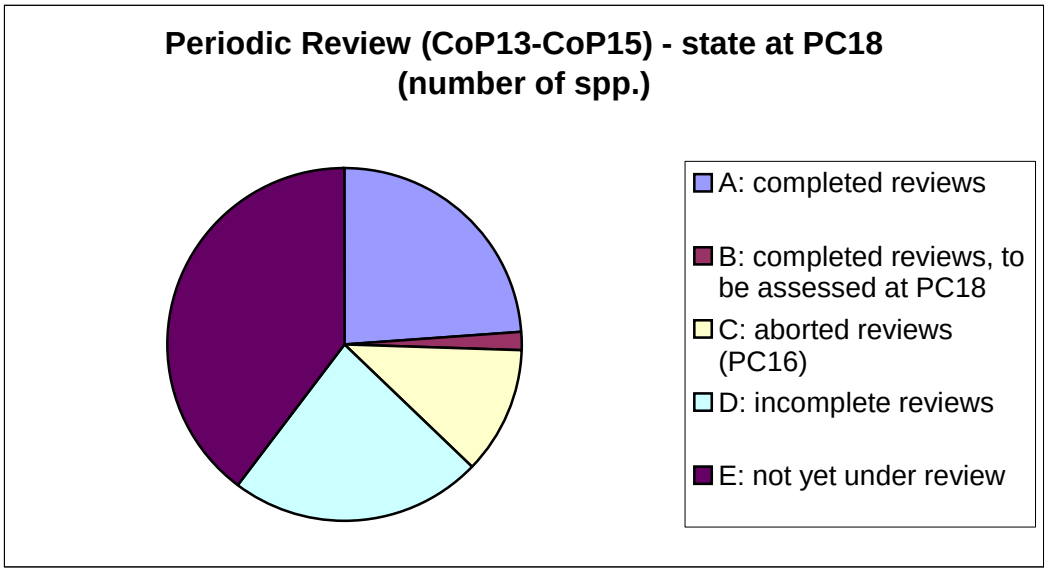
A report on the review of *Tillandsia harrisii* from the year 2006 is now available and an updated version (2009) is included in Annex 3.

Argentina submitted a report on the review of *Podocarpus parlatorei* (Annex 4).

Madagascar submitted a report on various taxa after the deadline. This report is annexed in the language in which it was received (Annex 5).

Mexico announced that they will present a report on the review of *Euphorbia antisyphilitica* at PC18.

Diagram 1


Periodic Review (CoP13-CoP15) - state at PC18
(number of spp.)
A: completed reviews
B: completed reviews, to be assessed at PC18
C: aborted reviews (PC16)
D: incomplete reviews
E: not yet under review

DRAFT GUIDELINES FOR THE PERIODIC REVIEW OF THE APPENDICES

The WG proposes to introduce a new budget line for the Periodic Review of the Appendices, and to introduce a modified approach, including a new, second phase of the process (phase B). The proposed schedule should work with normal intervals of meetings. If the Plants Committee decides to consider this approach, the WG recommends that this should be coordinated with the Animals Committee and submitted as a proposed revision to Resolution Conf 14.8 at the 15th meeting of the Conference of the Parties (CoP15).

Current guidelines according to Resolution Conf. 14.8, Periodic Review of the Appendices

I. Phase A (open to range States and voluntary experts, no budget)

Meeting	**Entity**	**Action**
PC	PC	Following the CoP, establishes a schedule for the Periodic Review of the Appendices and compiles a list of candidate taxa for review
	Sect.	Prepares notification on taxa for review and request range States to comment
	Sect.	Compiles responses and informs the SC of the list of candidate taxa and comments of range States
1st SC after PC	SC	Approves list of taxa for review
PC +1	PC	Organizes reviews of approved taxa by range States / voluntary experts through regional representatives and establishes intersessional WG
	range States/ voluntary experts	Conduct reviews and, if appropriate, range States prepare proposals for changes in listings for consideration of CoP+1
PC +2	WG	Reports progress to PC
CoP +1	PC	Reports progress to CoP and presents list of taxa that are not allocated to a range State / voluntary expert ("orphan taxa") and that will go through phase B
	CoP	Decides on proposals by range States, takes note of list of taxa for phase B
	Sect.	Notifies list of taxa for phase B to Parties (cf. 2008/049), inviting range States to comment, and forwards responses to Chair of WG
	WG	Evaluates responses and reports to PC +3

II. Phase B (contracting of experts, new budget line)

Meeting	**Entity**	**Action**
PC + 3	PC	Considers report on responses and invites Secretariat to contract experts for phase B (similar to existing paragraph h of Resolution Conf. 14.8)
	Sect.	Contracts experts (using funds of the budget line allocated to the Periodic Review [to be established] or other funds available for such reviews)
	Sect.	Includes reports on reviews in agenda of PC + 4 and notifies range States of resulting reviews
PC + 4	PC	Assesses reports, in consultation with range States, decides on appropriate listings and necessary changes and invites Secretariat to notify this adopted list of necessary changes to Parties
	PC	In consultation with range States, organizes preparation of proposals for consideration of the next CoP (+ 2) by range States, voluntary PC members or the Secretariat (using funds of the budget in the latter case)
	Sect.	Notifies list, as adopted by PC, to Parties, inviting range States to comment and forwards responses to PC
	PC	Consults with range States, as appropriate
	PC	Forwards proposals to Depositary for submission
CoP + 2	CoP	Parties decide on species proposal

+ 1 = one intersessional period following meeting.

+ 2 = two intersessional periods following meeting.

Etc.

REVIEW OF *TILLANDSIA HARRISII*

Name(s) and affiliation(s) of reviewer(s)

Ing. Agr. Otoniel Chacón, Jefe Sección de Flora
Ing. Agr. Julio Cruz Corzo, Técnico Sección de Flora
Licda. Mygdalia García, Jefe Sección de Exportaciones e Importaciones
Dr. Hiram Ordóñez, Director y Autoridad Científica CITES
Departamento de Vida Silvestre.
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Taxon reviewed (including common and taxonomic names)

Tillandsia harrisii
Harris' tillandsia, parasite
Epiphytal and lithophytic species

Conclusion

For the moment, it is recommended that the species remain in Appendix II, to ensure its survival in the wild.

Criteria Resolution Conf. 9.24 (Rev. CoP13)

Trade criterion

<table>
<tr><td colspan="2">A species "is or may be affected by trade" if:
i) it is known to be in trade (using the definition of 'trade' in Article I of the Convention), and that trade has or may have a detrimental impact on the status of the species; or
ii) it is suspected to be in trade, or there is demonstrable potential international demand for the species, that may be detrimental to its survival in the wild.</td></tr>
<tr><td>Is or may the species be affected by trade?</td><td>Tillandsia harrisii is in trade and there exists a strong demand for it. In fact, it is the sixth most traded species of the 63 in this genus that are commonly exported from Guatemala.

EXPORTS AUTHORIZED BETWEEN 2001 AND 2008
<table><tr><th>Year</th><th>No. of specimens exported</th></tr><tr><td>2001</td><td>57,950</td></tr><tr><td>2002</td><td>45,000</td></tr><tr><td>2003</td><td>31,400</td></tr><tr><td>2004</td><td>89,000</td></tr><tr><td>2005</td><td>117,600</td></tr><tr><td>2006</td><td>233,831</td></tr><tr><td>2007</td><td>187,295</td></tr><tr><td>2008*</td><td>47,185</td></tr></table>
* Recorded data for 2008 are preliminary.
All specimens are traded as live plants and they are all propagated under controlled conditions (in vitro, with the application of hormones, fertilizers, flowering stimulants, fungicides and pesticides), in nurseries registered with the National Council of Protected Areas – CONAP – the CITES Management Authority of Guatemala.</td></tr>
</table>

Biological criteria

Criterion	Application to taxon under review
A) (i) an observed, inferred or projected decline in the number of individuals or the area and quality of habitat;	
A) (ii) each subpopulation being very small;	
A) (iii) a majority of individuals being concentrated geographically during one or more life-history phases;	Local endemic species from Guatemala. The known population is found mainly along a stretch of land in the River Teculután basin, in the San Lorenzo village area, Río Hondo municipality, Department of Zacapa. The distribution area is a strip of about 90-100 ha, between La Marmolera and Hidroeléctrica, both located in the same basin. For the time being, this species has not been reported elsewhere.
A) (iv) large short-term fluctuations in population size;	

A) (v) a high vulnerability to either intrinsic or extrinsic factors.	It is highly vulnerable to intrinsic factors. Little is known about its reproduction in the wild (sexual and asexual). It is exclusively propagated asexually in nurseries. Asexual propagation in the wild produces an annual average of three daughter plants. This characteristic is considered to be one of the reasons for its limited range. Through the use of hormones and growth stimulants, nurseries have recorded a higher production of daughter plants or scions (from 6 to 20 or more scions by mother plant, depending on the propagation system used). It has also been reported that *T. harrisii* can be easily hybridize with *T. capitata* in nurseries, producing fertile seeds and plants. It is vulnerable to extrinsic factors. The main know distribution area is the subject of intensive extraction of marble and of forest exploitation. According to reports from people who have visited the area recently, the region is very sparsely forested.
B) (i) fragmentation or occurrence at very few locations;	Data are not available.
B) (ii) large fluctuations in the area of distribution or the number of subpopulations;	
B) (iii) a high vulnerability to either intrinsic or extrinsic factors;	See A) (v).
the area of distribution;	Decrease in the known area of distribution.
the area of habitat;	
the number of subpopulations;	
the number of individuals;	
the quality of habitat;	Deterioration in the quality of the habitat owing to the intensive extraction of marble and to forest exploitation in its range, as use of natural resources is allowed in the 'buffer zone' of protected areas.
the recruitment.	Illegal harvest: since 2005, no reports of such activity have been received as the *Nature Defenders Foundation* (*Fundación Defensores de la Naturaleza*), an entity that administers the protected area where this species is found, has an agreement with the representatives of the properties home to this species to restrict access to the area concerned. *(There are only two entries to the area, both with gates and guards, where visitors have to identify themselves to go in and out.)*
C) (i) observed as ongoing or as having occurred in the past (but with a potential to resume);	No marked decrease in the population size has been observed, but this could occur because of the factors mentioned in A and B. However, according to the reports from Danilo Saavedra from the *Nature Defenders Foundation*, the population has recovered significantly following the signature of the agreement to decrease illegal harvesting. The *Nature Defenders Foundation* has been asked to conduct a field survey to assess the status of the population, its density and the real extent of its range.

a decrease in area of habitat;	
a decrease in quality of habitat;	
levels or patterns of exploitation;	
a high vulnerability to either intrinsic or extrinsic factors;	The known vulnerability stems mainly from its natural mode of reproduction and from its restricted range.
a decreasing recruitment	

For criteria A) (v) and B) (iii), please check which if any of the vulnerability factors listed below apply:

_X___ low fecundity
____ slow growth rate
____ high age at first maturity
____ distorted age, size or sex ratio
____ complex social structure
____ extensive migratory behaviour
____ strong aggregating behaviour (e.g., schooling)
____ low population density (for sessile or semi-sessile species)
___X_ specialized niche requirements (e.g. diet and habitat)
____ species associations such as symbiosis and other forms of co-dependency
_X__ fragmentation and habitat loss
_X___ reduced genetic diversity
____ dispensation (prone to continuing decline, even in the absence of exploitation)
___X high degree of endemism
____ threats from disease
____ threats from invasive species
threats from rapid environmental change (e.g. climate regime shifts)
selectivity of removals (that may compromise recruitment)
__X__ Other (please specify): contamination, forest fires, climate change.

REVIEW OF *PODOCARPUS PARLATOREI*

Conclusion

Argentina, as range State, proposes that *P. parlatorei* be retained in Appendix I for the time being.

The analysis of the change in status of *Podocarpus parlatorei* is based on reports submitted at the request of the CITES Secretariat, document PC17 Doc. 11, later analysed and reviewed by the Coordination of the Conservation of Biodiversity, Secretariat of Sustainable Use and Environment of Argentina (*Conservación de la Biodiversidad, Secretaría de Ambiente y Desarrollo Sustentable de Argentina*), and by:

– Paula Quiroga and Andrea Premoli, Ecotone Laboratory, National University of Comahue, Argentina

– Forest Directorate (CITES Scientific Authority), Secretariat of Sustainable Use and Environment, Argentina

Podocarpus parlatorei (Parlatore's podocarp) is a species endemic to the mountain forests of the Selva Tucumano-Boliviana region. It was heavily logged for its timber in past decades, which led to its inclusion in CITES Appendix I from the Convention's entry into force, in 1975.

Podocarpus parlatorei plays a potentially pivotal ecological role in the continued existence of mountain forests. The mountain forest should be considered as a 'protecting forest', given the important environmental impact of its exploitation, caused fundamentally by the abrupt slopes of its habitat; the cost of developing and maintaining the necessary infrastructure to carry out harvests in this type of terrain; the few months during which one can penetrate the forest (less than six months a year); and the location of those forests at the end of valleys where fog reaches its maximum frequency and intensity (cloud forests).

As a pioneer tree that is also long-lived and remains a dominant species throughout the succession until the forest reaches maturity, *P. parlatorei* plays an important role in the system dynamics, facilitating the growth of many other species. Its fruits and seeds are a source of food for threatened species that occupy a limited range, such as the red-faced guan (*Penelope dabbenei*) or the alder parrot (*Amazona tucumana*), as well as for many other birds and mammals. Additionally, its recruitment in disturbed areas offers a great potential for the recovery of land degraded by over-exploitation and erosion in the highest parts of the forest, as well as in the ecotones with mountain pastures, giving it a great management potential.

Consequently, the maintenance of the genetic diversity of populations of *P. parlatorei* has direct implications for the conservation of mountain forests.

P. parlatorei is currently used by local rural communities for *inter alia* firewood, timber for stakes, utensils, housing, and hedgerows around houses and enclosures. The impact of such usage has not been measured, even though it should be stronger on sites where recent stands have colonized degraded rural areas. The impact of its commercial use would be very different, owing to the tree's slow growth, the time it needs to come to maturity and the limited recruitment that takes place within old forests.

Additionally, it represents an interesting research area to assess distribution patterns in relation to climate changes that have occurred from the Pleistocene and Holocene until now, and to infer from this information the possible historical range of this family on the South-American continent.

In order to assess whether the various populations of this species are threatened by the current land use, the following is required: (1) inventories that indicate the density of mature podocarps and the regeneration throughout its range; (2) data on the population status in stands with different harvest intensity and history; and (3) information on the species ecology and the recruitment requirements in populations subject to various use types and representative of the different ecological conditions in which the species is found.

Taking into account the characteristics described in the paragraphs above (based on three studies conducted by professional experts in this subject), noting the importance of the species populations at different levels, and the consequences that an inadequate conservation strategy could have, and considering also that:

- Preserving this species of southern origin would result in protecting the mountain forest as a whole.

- In the past few years, the volume of domestic trade has increased. Yet factors that would make it possible to assess the current and potential degrees of threat to the species if international trade became possible are not known (e.g. species availability, regeneration status, etc.).

- The Forest Directorate of the SAyDS, the CITES Scientific Authority, suggests retaining the species under protection until in-depth studies have been conducted and warrant a change in status.

- The information currently available is insufficient and inadequate to assess whether this species should be transferred to Appendix II in compliance with the current CITES criteria [Resolution Conf. 9.24 (Rev. CoP14)].

- The suitability of adopting a precautionary approach.

Repoblikan'i Madagasikara
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Antananarivo, le 13 novembre 2008.

AUTORITE SCIENTIFIQUE FLORE CITES
Département de Biologie et Ecologie Végétales
Faculté des Sciences
Université d'Antananarivo

à

Madame le Directeur de la
Valorisation des Ressources Naturelles
Organe de Gestion de la CITES
Nanisana Antananarivo

N° : 033-08/UNIV/DBEV/SPFl/CITES
Objet : Réponse à la notification aux Parties N° 2008/049.
Réf. : VL N° 324/MEFT/SG/DGEF/DVRN/SGFF

Madame,

Nous avons l'honneur de vous présenter les résultats de nos recherches sur l'examen périodique d'espèces inscrites aux annexes CITES en réponse à la notification aux Parties N° 2008/049. La version électronique est envoyée par e-mail.

Vous souhaitant bonne réception.

EXAMEN PERIODIQUE D'ESPECES INSCRITES AUX ANNEXES CITES

Cet examen est basé sur une synthèse bibliographique. Des données sur la biologie et sur l'écologie, des données sur le commerce et l'état de stock des opérateurs, ont été recherchées pour chaque espèce examinée. Il s'agit des Didieraceae spp. inscrites en Annexe II, des Euphorbia spp. et des Aloès de l'Annexe I. Des informations plus détaillées ont pu être obtenues pour les espèces de : *Aloe laeta* var. *laeta* Berger (SEHEN, 2006), *Aloe suzannae* Decary et *Euphorbia capsaintemariensis* (SP CITES Flore, 2007). Les résumés des résultats des études de ces trois espèces sont trouvés, respectivement, en annexes 1,2 et 3 de ce rapport.

1- Statuts de conservation des espèces examinées

En fonction des données biologique et écologique obtenues, des statuts de conservation selon les critères d'évaluation de menace de l'IUCN sont proposés (tableau I)

Tableau I : Statuts de conservation des espèces examinées.

Famille	Nom scientifique	Auteurs	Annexe CITES	Statut IUCN
DIDIERACEAE	*Alluaudia ascendens*	Drake	II	
	Alluaudia comosa	Drake	II	
	Alluaudia dumosa	Drake	II	
	Alluaudia humbertii	Choux	II	
	Alluaudia montagnacii	Rauh	II	
	Alluaudia procera	Drake	II	LR/nt ver 2.3 (1994)
	Alluaudiopsis fiherenensis	Humb. et Choux	II	
	Alluaudiopsis marnieriana	Rauh	II	
	Decaryia madagascariensis	Choux	II	
	Didierea madagascariensis	H. Baill	II	
	Didierea trolii	Capuron et Rauh	II	

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Seule *Alluaudia procera* possède un statut de conservation IUCN.

Famille	Nom scientifique	Auteurs	Annexe CITES	Statut IUCN ver 2.3 (1994)	Statuts IUCN proposés
ASPHODELACEAE	*Aloe albiflora*	Guillaumin	I		
	Aloe alfredii	Rauh	I		
	Aloe bakeri	Scott-Elliot	I		
	Aloe bellatula	Reynolds	I		
	Aloe calcairophila	Reynolds	I		
	Aloe compressa	H. Perrier	I		
	Aloe compressa var. rugosquamosa	H. Perrier	I		
	Aloe compressa var. schistophila	H. Perrier	I		
	Aloe delphinensis	Rauh	I		

Famille	Nom scientifique	Auteurs	Annexe CITES	Statut IUCN ver 2.3 (1994)	Statuts IUCN proposés
	Aloe descoingsii	Reynolds	I		
	Aloe haworthioides	Baker	I		
	Aloe haworthioides var. aurantiaca	H. Perrier	I		
	Aloe helenae	Danguy	I	CR D	
	Aloe laeta	A. Berger	I		
	Aloe laeta var. laeta	A. Berger	I		CR (2001)
	Aloe laeta var. maniensis	H. Perrier	I		
	Aloe parallelifolia	H. Perrier	I		
	Aloe parvula	A. Berger	I		
	Aloe rauhii	Reynolds	I		
	Aloe suzannae	Decary	I	CR D	CR B (2007)
	Aloe versicolor	Guillaumin	I		

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Seules *Aloe helenae* et *Aloe suzannae* ont des statuts de conservation IUCN. Un statut « CR » (2001) est proposé pour *Aloe laeta var. laeta*.

Famille	Nom scientifique	Auteurs	Annexe CITES	Statut IUCN ver 3.1 (2001)
EUPHORBIACEAE	*Euphorbia ambovombensis*	Rauh & Razaf.	I	VU D2
	Euphorbia capsaintemariensis var. tulearensis	(Rauh) Rauh	I	CR
	Euphorbia cremersii	Rauh & Razaf.	I	VU D2
	Euphorbia cremersii forma viridifolia	Rauh	I	
	Euphorbia cremersii var. cremersii	Rauh & Razaf.	I	VU D2
	Euphorbia cremersii var. rakotozafyi	(Cremers) Rauh	I	VU D2
	Euphorbia cylindrifolia	Marn.-Lap. & Rauh	I	EN B1ab(iii)+2ab(iii)
	Euphorbia cylindrifolia subsp. cylindrifolia	Marn.-Lap. & Rauh	I	EN B1ab(iii)+2ab(iii)
	Euphorbia cylindrifolia subsp. tuberifera	Rauh	I	CR B1ab(iii,v)
	Euphorbia decaryi	Guillaumin	I	EN B1ab(iii)+2ab(iii)
	Euphorbia decaryi var. ampanihyensis	Cremers	I	VU D2
	Euphorbia decaryi var. decaryi	Guillaumin	I	EN B1ab(iii)+2ab(iii)
	Euphorbia decaryi var. robinsonii	Cremers	I	CR B1ab(iii,v)+2ab(iii,v)
	Euphorbia decaryi var. spirosticha	Rauh & Buchloh	I	VU D2
	Euphorbia françoisii	Leandri	I	CR B1ab(iii,v)
	Euphorbia francoisii var. crassicaulis	Rauh	I	VU D2

Famille	Nom scientifique	Auteurs	Annexe CITES	Statut IUCN ver 3.1 (2001)
EUPHORBIACEAE	*Euphorbia francoisii var. francoisii*	Leandri	I	CR B1ab(iii,v)
	Euphorbia moratii	Rauh	I	VU D2
	Euphorbia moratii var. antsingiensis	Cremers	I	VU D2
	Euphorbia moratii var. bemarahaensis	Cremers	I	VU D2
	Euphorbia moratii var. moratii	Rauh	I	VU D2
	Euphorbia moratii var. multiflora	Rauh	I	VU D2
	Euphorbia parvicyathophora	Rauh	I	CR B1ab(iii)+2ab(iii)
	Euphorbia quartziticola	Leandri	I	EN B1ab(iii)+2ab(iii)

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Toutes les EUPHORBIACEAE de l'annexe I de la CITES ont des statuts IUCN. Douze espèces sont classées « VU », 5 « EN » et 7 « CR ».

2- Aires de répartition des espèces examinées

Le tableau II résume les aires de répartition des espèces examinées.

Les Régions écrites entre parenthèses sont relatives aux 22 Régions de Madagascar.

Tableau II : Aires de répartition des espèces examinées.

Famille	Nom scientifique	Habitat et aire de répartition	Amplitude écologique
DIDIERACEAE	*Alluaudia ascendens*	------	
	Alluaudia comosa	Limité aux substrats calcaires du Tertiaire (Région Atsimo Andrefana)	Restreinte
	Alluaudia dumosa	Distribué depuis les environs d'Ampanihy (Région Atsimo Andrefana) jusqu'à la zone de transition dans la parcelle 3 du PN d'Andohahela et dans la forêt de Petriky à l'ouest de Fort-Dauphin (Région Anosy)	Large
	Alluaudia humbertii	Dans la zone disjointe autour et au nord-est d'Ihosy (Région Ihorombe)	Large
	Alluaudia montagnacii	Dunes de sable au sud d'Itampolo (Région Atsimo Andrefana)	Large
	Alluaudia procera	Limité au bassin du fleuve Mandrare (Région Anosy)	Restreinte
	Alluaudiopsis fiherenensis	Limité au substrat calcaire du fourré décidu sub-aride depuis la RS du Cap Sainte Marie (Région Androy) jusqu'au nord de Toliary (Région Atsimo Andrefana)	Restreinte
	Alluaudiopsis marnieriana	Limité aux dunes de sable près de la côte nord de Tuléar (Région Atsimo Andrefana)	Restreinte
	Decaryia madagascariensis	Dans le fourré décidu sub-aride depuis les environs d'Ampanihy (Région Atsimo Andrefana) jusqu'à Bevilany (Région Anosy)	Large

Famille	Nom scientifique	Habitat et aire de répartition	Amplitude écologique
DIDIERACEAE	*Didierea madagascariensis*	Dans la forêt et le fourré décidus sub-arides depuis Tuléar (Région Atsimo Andrefana) jusqu'au sud de Morondava (Région Menabe)	Large
	Didierea trolii	Dans le fourré décidu sub-aride depuis Betioky (Région Atsimo Andrefana) jusqu'à Ambovombe (Région Androy)	Large

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Certaines espèces de la famille de DIDIERACEAE ont une large distribution tandis que d'autres ont une répartition restreinte.

Famille	Nom scientifique	Habitat et aire de répartition	Amplitude écologique
ASPHODELACEAE	*Aloe albiflora*	Tuléar : Tsivory	Restreinte
	Aloe alfredii	Antananarivo : Ibity	Restreinte
	Aloe bakeri	Fianarantsoa : Itremo. Tuléar : Ampinanibe, Fort-Dauphin	Restreinte
	Aloe bellatula	Fianarantsoa : Itremo	Restreinte
	Aloe calcairophila	Fianarantsoa : Itremo, Ambatofinandrahana	Restreinte
	Aloe compressa	Fianarantsoa : Itremo, Mania	Restreinte
	Aloe compressa var. rugosquamosa	Sur quartzites des Monts Ivohibe et Iarambo, à environ 1350m dans le bassin d'Andratsay - Mahajilo, région Centre. Région Amoron'i Mania.	Restreinte
	Aloe compressa var. schistophila	Sur les roches schisteuses au Nord d'Ambatofinandrahana (Région Amorin'i Mania), environ 1400m.	Restreinte
	Aloe delphinensis	------	Restreinte
	Aloe descoingsii	Tuléar : Tsihombe, Anjamala	Restreinte
	Aloe haworthioides	Fianarantsoa : Itremo, Ambatofinandrahana, Andringitra (Aire Protégée)	Restreinte
	Aloe haworthioides var. aurantiaca	Mont Iaody. Région Vakinakaratra.	Restreinte
	Aloe helenae	Fort-Dauphin (Région Anosy)	Restreinte
	Aloe laeta	Tuléar : Fiherenana	Restreinte
	Aloe laeta var. laeta	Mont Ibity (Région Vakinakaratra)	Localisée
	Aloe laeta var. maniensis	Sur quartzites de montagne entre les fleuves Mania et Ivato, à environ 1400m.	Restreinte
	Aloe parallelifolia	Fianarantsoa : Zazafotsy, Ambatofinandrahana, Saronara	Restreinte
	Aloe parvula	Montagnes d'Analamamy (Ambatomenaloha). Ouest d'Ambatofinandrahana sur la route d'Ambositra et Ivato à Morondava sur la côte ouest.	Localisée Fragmentée
	Aloe rauhii	Sud Est d'Ampanihy.	Restreinte
	Aloe suzannae	Ankazoabo Atsimo (Région Atsimo Andrefana). Amboasary Atsimo (Région Anosy). Ambovombe (Région Androy). Andamilamy.	Restreinte
	Aloe versicolor	Tuléar : Ampasimena	Restreinte

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Famille	Nom scientifique	Habitat et aire de répartition	Amplitude écologique
EUPHORBIACEAE	*Euphorbia ambovombensis*	Limité à Ambovombe (Région Androy)	Localisée
	Euphorbia capsaintemariensis var. tulearensis	Cap Sainte Marie (Région Androy). Itampolo (Région Atsimo Andrefana)	Localisée Fragmentée
	Euphorbia cremersii	Montagne de l'Ouest sur la route entre Maevatanana (Région Betsiboka) et Majunga [Antanimbary, nord d'Antsiabotsira (Antsiafabositra)] (Région Boeny)	Restreinte
	Euphorbia cremersii forma viridifolia	Montagne de l'Ouest sur la route entre Maevatanana (Région Betsiboka) et Majunga [Antanimbary, nord d'Antsiabotsira (Antsiafabositra)] (Région Boeny)	Restreinte
	Euphorbia cremersii var. cremersii	Majunga (Région Boeny) et Maevatanana (Région Betsiboka)	Restreinte
	Euphorbia cremersii var. rakotozafyi	Sans localisation précise, en culture au Jardin Botanique de Tsimbazaza (Antananarivo).	Restreinte
	Euphorbia cylindrifolia	Entre Manambaro et Fort-Dauphin (Région Anosy)	Large
	Euphorbia cylindrifolia subsp. cylindrifolia	Fort-Dauphin (Région Anosy)	Large
	Euphorbia cylindrifolia subsp. tuberifera	Entre Amboasary Atsimo et Fort-Dauphin (Région Anosy)	Large
	Euphorbia decaryi	Ampanihy (Région Atsimo Andrefana). Tuléar et Ampotaka (Région Atsimo Andrefana). Fort-Dauphin (Région Anosy)	Fragmentée
	Euphorbia decaryi var. ampanihyensis	Bush calcaire à 30 km au sud d'Ampanihy (Région Atsimo Andrefana)	Restreinte
	Euphorbia decaryi var. decaryi	Fort-Dauphin (Région Anosy)	Restreinte
	Euphorbia decaryi var. robinsonii	Limité à Tuléar (Région Atsimo Andrefana)	Restreinte
	Euphorbia decaryi var. spirosticha	Forêt *d'Alluaudia* près d'Ampotaka (Région Atsimo Andrefana), au fleuve de Manarandra (Menarandra) (Région Atsimo Andrefana)	Restreinte
	Euphorbia françoisii	Environs de Fort-Dauphin (Région Anosy), entre le pic St Louis et la mer, sable, altitude 1 - 25 m.	Restreinte
	Euphorbia francoisii var. crassicaulis	Sous les buissons denses près de la côte, à proximité du village d'Andrahomana [au sud de Ranopiso, entre Fort-Dauphin et Amboasary Atsimo (Région Anosy)]	Restreinte

Famille	Nom scientifique	Habitat et aire de répartition	Amplitude écologique
EUPHORBIACEAE	*Euphorbia francoisii var. francoisii*	Fort-Dauphin (Région Anosy)	Localisée
	Euphorbia moratii	Tsingy de Bemaraha (Région Melaky) et à Maevatanana (Région Betsiboka)	Localisée
	Euphorbia moratii var. antsingiensis	Sur calcaire de l'Antsingy vers Bevary (Est d'Antsalova) (Région Melaky)	Localisée
	Euphorbia moratii var. bemarahaensis	Tsingy de Bemaraha (Région Melaky)	Localisée
	Euphorbia moratii var. moratii	Tsingy de Bemaraha (Région Melaky).	Localisée
	Euphorbia moratii var. multiflora	Probablement au nord de Maevatanana (Région Betsiboka) sur la route de Majunga, sans localité exacte.	Localisée
	Euphorbia parvicyathophora	Près d'Anjamala (Région Atsimo-Andrefana)	Localisée Fragmentée
	Euphorbia quartziticola	Sur les Hauts Plateaux centraux : massif de l'Itremo (Région Amoron'i Mania) ; près d'Ambatofinandrahana (Région Amoron'i Mania). L'espèce est abondante quand l'habitat répond à ses exigences (sables blancs purs de quartzite avec des traces de sol)	Large

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

3- Menaces

La dégradation de l'habitat, les feux de brousse, les feux de nettoyage, et les collectes illicites pour le commerce des espèces inscrites à l'Annexe II, sont les principales menaces qui pèsent sur ces espèces examinées.

4- Commerce international

Des plantes entières vivantes sont exportés par les opérateurs agréés. Le tableau III résume les exportations des DIDIERACEAE depuis 2005.

Tableau III : Données sur le commerce des DIDIERACEAE.

Famille	Nom scientifique	Statut IUCN	Annexe CITES	Exportation			
				2005	2006	2007	2008
DIDIERACEAE	*Alluaudia ascendens*		II	2206	2	720	---
	Alluaudia comosa		II	89	90	---	---
	Alluaudia dumosa		II	---	52	40	---
	Alluaudia humbertii		II	---	---	---	---
	Alluaudia montagnacii		II	6	---	---	---
	Alluaudia procera	LR/nt ver 2.3 (1994)	II	7	4	17	---
	Alluaudiopsis fiherenensis		II	---	215	---	---
	Alluaudiopsis marnieriana		II	---	3	---	---
	Decaryia madagascariensis		II	---	---	---	---

Famille	Nom scientifique	Statut IUCN	Annexe CITES	Exportation			
DIDIERACEAE	*Didierea madagascariensis*		II	34	---	---	---
	Didierea trolii		II	25	10	180	---

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

Alluaudia humbertii et *Decaryia madagascariensis* n'ont pas encore fait l'objet d'une exportation depuis 2005. L' *Alluaudia ascendens* est la plus commercialisée. Aucune demande d'exportation des DIDIERACEAE n'a été aussi reçue durant cette année 2008.

En outre, des exportations d'espèces inscrites en Annexe I de la CITES, reproduites artificiellement à des fins commerciales par un opérateur agréé, ont été enregistrées durant cette année 2008 (tableau IV). Ces exportations sont conformes aux articles Conf. 9.19 (Rev. CoP 13) et Conf. 11.11 (Rev. CoP 14) sur l'exportation d'espèces végétales inscrites à l'Annexe I de la CITES et reproduites artificiellement à des fins commerciales.

Tableau IV : Données sur le commerce d'espèces végétales inscrites en Annexe I de la CITES, reproduites artificiellement à des fins commerciales.

Famille	Nom scientifique	Statut IUCN ver 3.1 (2001)	Annexe CITES	Exportation 2008
ASPHODELACEAE	*Aloe descoingsii*		I	300
EUPHORBIACEAE	*Euphorbia cremersii*	VU D2	I	400
	Euphorbia cylindrifolia	EN B1ab(iii)+2ab(iii)	I	300
	Euphorbia françoisii	CR B1ab(iii,v)	I	1100
	Euphorbia moratii	VU D2	I	100

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

5- Conservation des espèces examinées

a. Conservation in situ

La présence des espèces dans les Aires Protégées est bénéfique pour leur pérennité. En effet, ces aires sont considérées comme étant importantes pour la conservation de la flore au niveau globale mais aussi et surtout pour la maintenance de la diversité au niveau régional. Le tableau V montre les espèces présentes dans les Aires Protégées.

Tableau V : Présence des espèces dans les Aires Protégées.

Famille	Nom scientifique	Présence dans les AP
DIDIERACEAE	*Alluaudia comosa*	PN Tsimanampetsotsa
	Alluaudia dumosa	PN Andohahela, nouvelle AP à Petriky
	Alluaudiopsis fiherenensis	RS du Cap Sainte Marie
	Didierea madagascariensis	PN Tsimanampetsotsa
ASPHODELACEAE	*Aloe haworthioides*	PN Andringitra
	Aloe suzannae	RS Cap Sainte Marie
EUPHORBIACEAE	*Euphorbia capsaintemariensis var. tulearensis*	RS Cap Sainte Marie
	Euphorbia cremersii	Possibilité dans RS de Bemarivo
	Euphorbia cremersii var. cremersii	PN Namoroka
	Euphorbia moratii	PN Tsingy de Bemaraha

Famille	Nom scientifique	Présence dans les AP
EUPHORBIACEAE	*Euphorbia moratii var. antsingiensis*	PN Tsingy de Bemaraha
	Euphorbia moratii var. bemarahaensis	PN Tsingy de Bemaraha
	Euphorbia moratii var. moratii	PN Tsingy de Bemaraha

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

AP : Aires Protégées
PN : Parc National
RS : Réserve Spéciale

b. Conservation ex situ

La conservation ex situ est la multiplication des espèces dans les centres horticoles des opérateurs. Elle constitue un atout pour une exploitation durable des espèces et les opérateurs sont encouragés à faire des multiplications des espèces qu'ils exportent. Actuellement, 3 opérateurs sont très actifs dans la multiplication et la conservation ex situ des espèces examinées. L'état de stock (fin 2007) des opérateurs sur les espèces examinées est résumé dans le tableau VI.

Tableau VI : Etat de stock des opérateurs (fin 2007)

Famille	Nom scientifique	Stocks des opérateurs
DIDIERACEAE	*Alluaudia ascendens*	15
	Alluaudia comosa	120
	Alluaudia dumosa	11
	Alluaudia humbertii	7
	Alluaudia montagnacii	---
	Alluaudia procera	115
	Alluaudiopsis fiherenensis	236
	Alluaudiopsis marnieriana	5
	Decaryia madagascariensis	---
	Didierea madagascariensis	389
	Didierea trolii	340
ASPHODELACEAE	*Aloe albiflora*	---
	Aloe alfredii	248
	Aloe bakeri	490
	Aloe bellatula	---
	Aloe calcairophila	584
	Aloe compressa	3772
	Aloe compressa var. rugosquamosa	---
	Aloe compressa var. schistophila	---
	Aloe delphinensis	---
	Aloe descoingsii	452
	Aloe haworthioides	162
	Aloe haworthioides var. aurantiaca	---
	Aloe helenae	---
	Aloe laeta	44
	Aloe laeta var. laeta	---
	Aloe laeta var. maniensis	---
	Aloe parallelifolia	299
	Aloe parvula	17
	Aloe rauhii	---
	Aloe suzannae	---
	Aloe versicolor	---

Famille	Nom scientifique	Stocks des opérateurs
EUPHORBIACEAE	*Euphorbia ambovombensis*	---
	Euphorbia capsaintemariensis var. tulearensis	102
	Euphorbia cremersii	3329
	Euphorbia cremersii forma viridifolia	---
	Euphorbia cremersii var. cremersii	---
	Euphorbia cremersii var. rakotozafyi	---
	Euphorbia cylindrifolia	4480
	Euphorbia cylindrifolia subsp. cylindrifolia	---
	Euphorbia cylindrifolia subsp. tuberifera	---
	Euphorbia decaryi	38
	Euphorbia decaryi var. ampanihyensis	---
	Euphorbia decaryi var. decaryi	---
	Euphorbia decaryi var. robinsonii	---
	Euphorbia decaryi var. spirosticha	---
	Euphorbia françoisii	1171
	Euphorbia francoisii var. crassicaulis	---
	Euphorbia francoisii var. francoisii	---
	Euphorbia moratii	3829
	Euphorbia moratii var. antsingiensis	---
	Euphorbia moratii var. bemarahaensis	---
	Euphorbia moratii var. moratii	---
	Euphorbia moratii var. multiflora	---
	Euphorbia parvicyathophora	360
	Euphorbia quartziticola	84

Source : Secrétariat Permanent CITES Flore Madagascar (2008).

6- Conclusions et recommandation

Toutes les espèces d'EUPHORBIACEAE inscrites à l'Annexe I de la CITES ont un statut IUCN. Seulement *Aloe helenae* et *Aloe suzannae* (Annexe I) et *Alluaudia procera* (Annexe II) ont des statuts IUCN. Seul le statut IUCN de l'*Aloe laeta* var. *laeta* a été proposé par manque de données scientifiques récentes sur les espèces examinées.

En outre, des fiches d'identification illustrées des espèces d'*Aloe* les plus commercialisées ont été établies en 2007. Elles permettent de distinguer les Aloes de l'Annexe I de l'Annexe II et de faire un bon contrôle de gestion.

Des études scientifiques, surtout sur la biologie et l'écologie, de ces espèces examinées sont alors sollicitées.

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Annexe 1

Evaluation de la population de *Aloe laeta* var. *laeta* Berger

1- Habitat et répartition géographique

Aloe laeta var. *laeta* Berger se rencontre dans le domaine du centre de HUMBERT (1955) et a une aire de répartition restreinte. Elle peut être vue sur les quartzites et les schistes sur le flanc Est et Nord-Ouest du mont Ibity entre 1600m et 2200m d'altitude.

2- Etudes démographiques

a. Etat de la population

En se basant sur la théorie de TREMBLAY et al. (2002), la population de *Aloe laeta* var. *laeta* Berger n'est pas stable car il y a plus d'individus jeunes (63,94%) que d'individus adultes (36,04%).

b. Densité et fréquence de la population

Elle est faible avec 860 individus à l'hectare. Il en est de même pour la fréquence qui est estimée à 25%. Cette faible fréquence reflète exactement la répartition de l'espèce dans son milieu naturel. Elle est totalement absente dans les formations dégradées, elle préfère les milieux peu perturbés, elle pousse sur les faces rocheuses ou sur des saillies rocheuses surplombantes dans des stations très bien drainées et se rencontre isolément ou par petit groupe.

c. Régénération naturelle

Aloe laeta var. *laeta* Berger bien que moins abondant et peu fréquent sur la montagne de Kiboy, a tout de même un bon potentiel de régénération (177%).

d. Abondance numérique

Le critère d'abondance est très important dans l'évaluation des risques d'extinction. Selon IUCN (2001), une espèce est considérée en danger critique d'extinction si la population est estimée à moins de 250 individus matures.

Aloe laeta var. *laeta* Berger est connue dans une seule sous-population avec 253 individus matures.Menaces sur l'habitat

Feux de brousse et feux pour le renouvellement des pâturages.

3- Risques d'extinction

Aloe laeta var. *laeta* Berger a une aire d'occurrence de moins de 5 000 km² et une zone d'occupation inférieure à 500 km². Le nombre des individus matures est 253 et l'espèce n'est présente dans aucune Aire Protégée donc son risque de déclin futur est de 100%.

La confrontation de ces informations avec les critères de l'IUCN (2001) montre que l'espèce est estimée « En danger » soit « EN B1ab(iii,iv) + 2ab(iii,iv) ; C1 ». Cependant, à cause de son absence dans les Aires Protégées, l'espèce doit être reclassée dans la catégorie en danger critique d'extinction même si elle peut tolérer un certain degré de perturbation.

Annexe 2

Evaluation de la population de *Aloe suzannae* Decary

1- Sites d'étude

Andamilamy et Ambalatsimiviky.

2- Habitat et répartition géographique

Aloe suzannae Decary est rencontrée dans les fourrés xérophiles sur sables beige à blanc (dans la partie sud de Madagascar) et a une aire de répartition restreinte. Une sous-population est présente dans la réserve spéciale de Cap Sainte Marie.

3- Etudes démographiques

a. Densité de la population

Elle est faible avec 3 individus à l'hectare.

b. Régénération naturelle

A cause de l'insuffisance voire manque des individus régénérés, le taux de régénération n'a pas pu être calculé.

c. Abondance numérique

Douze individus d'*Aloe suzannae* Decary ont été comptés pour les 2 sous-populations étudiées parmi les 3 inventoriées.

4- Menaces

Aloe suzannae Decary a déjà été classée en « EX » (éteint) dans la nature. Mais cette étude a montré l'existence de quelques pieds sur le terrain. En revanche, le nombre restreint des individus adultes ne permet pas d'avoir une bonne régénération.

5- Risques d'extinction

L'espèce a une aire d'occurrence de 35 315 km² et une zone d'occupation de 27 km². L'abondance numérique est de 12 individus.La confrontation de ces informations avec les critères de l'IUCN pour l'évaluation des risques d'extinction a montré que l'espèce est classée « En Danger Critique d'extinction (CR) ». Et nous suggérons la catégorie CR (B)

Annexe 3

Evaluation de la population de *Euphorbia capsaintemariensis*

1- Site d'étude

Cap Sainte Marie (Région Androy).

2- Habitat et répartition géographique

Euphorbia capsaintemariensis est rencontrée dans les fourrés xérophiles sur les grès calcaires (dans la partie sud de Madagascar) et peut être vue dans la réserve spéciale de Cap Sainte Marie. Sa distribution est restreinte.

3- Etudes démographiques

a. Densité de la population

Elle est élevée avec 6 000 individus à l'hectare.

b. Régénération naturelle

L'espèce présente un bon potentiel de régénération avec un taux de 185,8%.

c. Abondance numérique

Euphorbia capsaintemariensis est connue dans une seule sous-population avec 60 000 individus.

4- Menaces

Le nombre restreint des individus adultes.

5- Risques d'extinction

L'espèce a une aire d'occurrence de 18 km² et une zone d'occupation de 18 km². L'abondance numérique est de 60 000 individus.

La confrontation de ces informations avec les critères de l'IUCN pour l'évaluation des risques d'extinction a montré que l'espèce est classée « En Danger Critique d'extinction (CR) ». Et nous suggérons la catégorie CR (D)

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REVIEW OF FLORA TAXA UP TO COP15: STATE AT PC18

Taxon	Appendix and year of listing	Number of species for higher taxa	Range State(s) / Territories	Country(ies) responsible for review	Contact person (e-mail address)	State of review
Medicinal Plants						
Saussurea costus	App. II (1975); App. I (1985)					(no responsibilities and experts assigned)
Dioscorea deltoidea	App. II (1975, roots only); Annotation #1 (1985)		Afghanistan, Bhutan, Cambodia, China, India, Lao People's Democratic Republic, Nepal, Viet Nam			(no responsibilities and experts assigned)
Euphorbia antisyphilitica	App. II (1975, under succulent *Euphorbia* spp.)		Mexico, United States of America	Mexico	Hesiquio Benitez Diaz (hbenitez@xolo.conabio.mx), Patricia Davila Aranda (pdavilaa@servidor.unam.mx)	Review under way, with future participation of US.
Timber Species						
Balmea stormae	App. I (1975)		El Salvador, Guatemala, Honduras, Mexico	Costa Rica; Guatemala	Dora Ingrid Rivera (drivera@una.ac.cr; dora.ingrid.rivera@gmail.com), Migdalia Garcia (cites@conap.gob.gt)	Report of 6 February 2008 to Chair: Difficulties in obtaining data.
Platymiscium pleiostachyum	App. I (1975); App. II with Annotation #1 (1990)		Costa Rica, El Salvador, Honduras, Nicaragua	Costa Rica	Dora Ingrid Rivera (drivera@una.ac.cr; dora.ingrid.rivera@gmail.com)	Report of 6 February 2008 to Chair: Difficulties in obtaining data.
Podocarpus parlatorei	App. I (1975)		Argentina, Bolivia, Peru	Argentina	Alejandro Brown (abrown@proyungas.com.ar), Pedro G. Blendinger (blendinger@birdecology.com.ar), Maria Tonelli (mtonelli@ambiente.gov.ar)	Reports submitted to Chair 16 and 22 February 2006, submitted by Chair to PC16 (PC16 Inf. 2 and PC16 Inf. 3). Report submitted to Chair on 22 December 2008.
Ornamental Plants, small taxa						
Agave victoriae-reginae	App. II (1983)		Mexico			Review will probably be initiated in the near future.
Tillandsia harrisii	App. II (1992)		Guatemala	Guatemala	Migdalia Garcia (cites@conap.gob.gt)	Report (from 2006) submitted to Chair on 22 December 2008

Tillandsia kammii	App. II (1992)		Honduras			(no responsibilities and experts assigned)
Tillandsia kautskyi	App. II (1992)		Brazil	Brazil	Celso do Lago Paiva (celsodolago@hotmail.com)	Review under way. The information will be sent to the Chair of the WG.
Tillandsia mauryana	App. II (1992)		Mexico			(no responsibilities and experts assigned)
Tillandsia sprengeliana	App. II (1992)		Brazil	Brazil	Celso do Lago Paiva (celsodolago@hotmail.com)	Review under way. The information will be sent to the Chair of the WG.
Tillandsia sucrei	App. II (1992)		Brazil	Brazil	Celso do Lago Paiva (celsodolago@hotmail.com)	Review under way. The information will be sent to the Chair of the WG.
Orothamnus zeyheri	App. I (1975); App. II with Annotation #1 (1997)		South Africa	South Africa	Sonja Meintjes (smeintjes@deat.gov.za)	Reviews completed by the end of 2008. ZA is preparing proposal for delisting for consideration of CoP 15.
Protea odorata	App. I (1975); App. II with Annotation #1 (1997)		South Africa	South Africa	Sonja Meintjes (smeintjes@deat.gov.za)	Reviews completed by the end of 2008. ZA is preparing proposal for delisting for consideration of CoP 15.
Welwitschia mirabilis	App. I (1975); App. II with Annotation #1 (1990)		Angola, Namibia	Namibia	Elly Hamunyela (ehamunyela@africaonline.com.na)	Report to be submitted for consideration of PC 18.
Hedychium philippinense	App. I (1975); App. II with Annotation #1 (1992)		Philippines			(no responsibilities and experts assigned)
Ornamental Plants, big taxa: Cactaceae						
Sclerocactus spp.	App. I: 1 sp. 2003, 8 spp. 1983; all other App. II (1975, under Cactaceae spp.)	18 spp.	Mexico, United States of America	United States of America	Patricia Ford (Patricia_Ford@fws.gov)	PC16 WG2 Doc. 1: Tentative.
Cycads						
Cycas beddomei	App. II (1975); App. I (1987)		India	Netherlands	Jan de Koning (dekoning@nhn.leidenuniv.nl)	

Didieraceae						
Didieraceae spp.	App. II (1975)	11 spp.	Madagascar			(no responsibilities and experts assigned)
Succulent Euphorbias (see also under Medicinal Plants)						
Euphorbia, the spp. of Appendix I	App. I (1 sp. 1995, all other 1990)	10 spp.	Madagascar			(no responsibilities and experts assigned)
Aloes						
Aloe, the Madagascan spp. of Appendix I	App. I (1995)	17 spp.	Madagascar			(no responsibilities and experts assigned)
Orchids						
Peristeria elata	App. I (1975)		Colombia, Costa Rica, El Salvador, Panama, Venezuela	Costa Rica	Dora Ingrid Rivera (drivera@una.ac.cr; dora.ingrid.rivera@gmail.com)	

WG Periodic Review FLORA-participants (focal persons) up to PC 17

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the Netherlands (Chris Schürmann)
Thailand (Manit Jaichagun)
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Voluntary reviewers (*ad personam* mandates, in chronological order)

Dora Ingrid Rivera (Costa Rica)
Alejandro Brown (Argentina) - report submitted to PC16
Celso do Lago Paiva (Brazil)
Pedro G. Blendinger (Argentina) - report submitted to PC16
Migdalia Garcia (Guatemala)
Sonja Meintjes (South Africa)

WG at PC17

Chairman: Switzerland;
Members: The representative of Europe (Mr Sajeva);
Parties: Argentina, France, Germany, South Africa, Madagascar, Mexico, Namibia, United States of America;
IGOs and NGOs: UNEP-WCMC, European Commission, IUCN, TRAFFIC.