

SUMMARIES

Summaries of the IUCN/TRAFFIC Analyses of the Proposals to Amend the CITES Appendices at the 14th Meeting of the Conference of the Parties

The Hague, Netherlands

3–15 June 2007

Prepared by IUCN Species Programme and
Species Survival Commission
and TRAFFIC

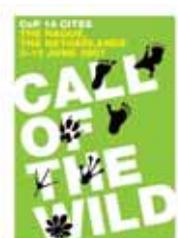
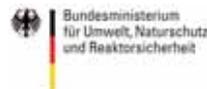


IUCN/TRAFFIC

Analyses of the Proposals to Amend the CITES Appendices at the 14th Meeting of the Conference of the Parties

The Hague, Netherlands
3–15 June 2007

Prepared by
IUCN Species Programme and
Species Survival Commission
and TRAFFIC



Production of the 2007 IUCN/TRAFFIC Analyses of the Proposals to Amend the CITES Appendices was made possible through the support of:

- The Commission of the European Union
- Ministry of Agriculture, Nature and Food Quality, Department for Nature, Netherlands
- Ministère de l'écologie et du développement durable, Direction de la nature et des paysages, France
- Ministerio de Medio Ambiente, Dirección General para la Biodiversidad, Spain
- Office vétérinaire fédéral, Switzerland
- Ministero dell'Ambiente e della Tutela del Territorio, Direzione Protezione della Nature, Italy
- Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Germany
- Department for Environment, Food and Rural Affairs (DEFRA), UK
- Danish Ministry of the Environment, Forest and Nature Agency
- Ministry of Agriculture and Forestry, Environment and Water Management, Division for Nature Conservation and Species Protection, Austria

IUCN -The World Conservation Union brings together states, government agencies and a diverse range of non-governmental organizations in a unique global partnership - over 1,000 members in some 181 countries. As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. IUCN builds on the strengths of its members, networks and partners to enhance their capacity and to support global alliances to safeguard natural resources at local, regional and global levels.

The Species Survival Commission (SSC) is the largest of IUCN's six volunteer commissions. With around 7000 scientists, field researchers, government officials and conservation leaders, the SSC membership is an unmatched source of information about biodiversity conservation. SSC members provide technical and scientific advice to conservation activities throughout the world and to governments, international conventions and conservation organizations. Through the Species Programme, they provide information critical to the development of conservation products and tools such as the IUCN Red List of Threatened Species. SSC works primarily through over a hundred Specialist Groups, some addressing conservation issues related to particular groups of plants and animals while others focus on topical issues such as reintroduction of species into former habitats, or wildlife health.

TRAFFIC the wildlife trade monitoring network, works to ensure that wildlife trade is not a threat to the conservation of nature. TRAFFIC is a joint programme of IUCN - The World Conservation Union and WWF, the global conservation organization.

Citation: IUCN and TRAFFIC. (2007). *IUCN/TRAFFIC Analyses of the Proposals to Amend the CITES Appendices*. Prepared by IUCN Species Programme and TRAFFIC for the Fourteenth Meeting of the Conference of the Parties to CITES. IUCN-The World Conservation Union, Gland, Switzerland.

The designations of geographical entities in this document and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN or TRAFFIC concerning the legal status of any country or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

INTRODUCTION

If CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) is to remain a credible instrument for conserving species affected by trade, the decisions of the Parties must be based on the best available scientific and technical information. Recognizing this, IUCN and TRAFFIC, have undertaken to provide technical reviews of the proposals to amend the CITES Appendices. The IUCN Species Programme has collected information on the status and biology of species from its Species Survival Commission Specialist Group network and broader scientific community, and TRAFFIC has focussed on the analysis of the trade and use components of the proposals, drawing on its own information sources and expert networks. The resulting document brings together a broad range of expertise, which we are confident will be of assistance in the discussions of the proposals.

The *Analyses* - as these technical reviews are known - aim to provide as objective an assessment as possible of each amendment proposal against the requirements of the Convention as laid out in the listing criteria elaborated in Resolution Conf. 9.24 (Rev. CoP13) and other Resolutions and Decisions. The review of each proposal consists of a summary section and more detailed supporting text. The summary section presents a synthesis of available information and, in a separate paragraph, a specific analysis of whether the proposal might be considered to meet the pertinent criteria in Resolution Conf. 9.24 (Rev CoP13) or not. Where particularly relevant, some observations on enforcement issues may also be made. The more detailed supporting text is presented in table form. These tables are designed to focus attention on the biological and trade criteria and the precautionary measures of Resolution Conf. 9.24 (Rev CoP13). Text in the left hand side is culled from the supporting statement provided by the proponents of that proposal. Text in the right hand side consists of comments, observations and additional information obtained in the review process.

The approach taken for preparation of the *Analyses* followed that used successfully in preparation of the *Analyses* for COP13. Following the deadline for Parties' submission of amendment proposals (4th January 2007), the review team compiled available information to prepare a first draft review. These drafts, together with a series of additional questions and clarifications were then sent to a variety of reviewers for comment and reviewers' responses were compiled into the final document.

To satisfy the needs of the Parties for information well before the CoP, the reviews were completed and available on the web on 30th March 2007. The summary sections are being distributed widely to reach as broad a target audience as possible. The background material will be available separately on the Internet and via e-mail.

These analyses aim to highlight relevant information on which the Parties can base their judgements, not to be exhaustive. Clearly there may be omissions and differences of interpretation in a document compiled on a wide range of species in such a short time. We have nevertheless tried to ensure that the document is factual and objective. It can be challenging to reflect reviewers' responses in a balanced manner, particularly when strong views are held and the information presented is of variable quality, and it has not always been possible to provide a consensus picture. The compilers take full responsibility for any misrepresentation.

A summary of the CITES listing criteria and the IUCN Red List Categories and Criteria is provided as an annex to the document. It should be emphasized that the numerical guidelines in Resolution Conf 9.24 (Rev CoP13), Annex 5 are not thresholds and may not be appropriate for all species. References to source material are provided wherever possible; in some cases, these sources have been consulted directly; in others, they have been cited by reviewers to support their statements. Where information is not referenced, it should be assumed that the source is IUCN or TRAFFIC. The assessments expressed in this publication do not necessarily reflect those of IUCN or TRAFFIC, nor the reviewers as a body. CITES Trade Data refer to data from CITES Annual Reports as provided by the Parties and managed by UNEP-WCMC. Where information has been provided from a particular country's official trade statistics, this has been specified.

ACKNOWLEDGEMENTS AND CREDITS

Many individuals and institutions contributed to the review of the CITES amendment proposals and compilation of the present Analyses. Those to whom we would first like to extend our thanks are the reviewers of these proposals, many of them members of the IUCN Species Survival Commission Specialist Groups, as well as the many other scientists and experts from other institutions who, although not formally linked with SSC, have volunteered their time and expertise to this process.

The staff members of TRAFFIC who assisted in the review of proposals and compiled trade and use accounts, deserve recognition for the contribution they have made to this document. Particular thanks to David Newton who provided significant input to the analyses of proposals for flora. In addition, John Caldwell of the UNEP-World Conservation Monitoring Centre assisted in providing information from the CITES database as well as bibliographic and other reference material. We would also like to thank the French translators Daniele and Richard Devitre and the team of Spanish translators headed by Wendy Byrnes.

The Analyses team was made up of: Martin Jenkins, Thomasina Oldfield and Aradhna Mathur from IUCN, Steven Broad and Roland Melisch at TRAFFIC, Sara Oldfield and Belinda Hawkins at BGCI, Carol Inskipp, Helen Scales and Tim Inskipp. Jane Smart, Sue Mainka and Imène Meliane at IUCN and Holly Dublin, Chair of the SSC provided valuable input. Tiina Rajamets and Julie Gray provided much assistance with copy editing and formatting. Kim Lochen and Richard Thomas at TRAFFIC assisted with design and Andrew McMullin and Abigail Powell of IUCN/SP gave much needed support in the final stages. Those responsible for overseeing the project were Martin Jenkins, Roland Melisch (TRAFFIC) and Thomasina Oldfield (IUCN), who accept responsibility for the contents.

List of Analyses

CoP14 Prop. 1 Transfer of <i>Nycticebus</i> spp from Appendix II to Appendix I	1
CoP14 Prop. 2 Deletion of Bobcat <i>Lynx rufus</i> from Appendix II	2
CoP14 Prop. 3 Transfer of the population of Leopard <i>Panthera pardus</i> from Appendix I to Appendix II with an annotation	3
Introduction to the African Elephant <i>Loxodonta africana</i> proposals	4
CoP14 Prop. 4 Maintenance of the populations of African Elephnat <i>Loxodonta africana</i> of Botswana, Namibia, South Africa and Zimbabwe in Appendix II with the replacement of all existing annotations	8
CoP14 Prop. 5 Amendment of the annotation to the population of African Elephant <i>Loxodonta africana</i> of Botswana	10
CoP14 Prop. 6 Amendment of the annotation regarding the populations of African Elephant <i>Loxodonta africana</i> of Botswana, Namibia and South Africa Amendment of the annotation regarding the population of African Elephant <i>Loxodonta Africana</i> of Zimbabwe	11
CoP14 Prop. 8 Amendment of the annotation to the Bolivian population of Vicuña <i>Vicugna vicugna</i>	13
CoP14 Prop. 9 Inclusion of Barbary Red-deer <i>Cervus elaphus barbarus</i> in Appendix I	14
CoP14 Prop. 10 Inclusion of Cuvire's Gazelle <i>Gazella cuvieri</i> in Appendix I	15
CoP14 Prop. 11 Inclusion of Dorcas Gazelle <i>Gazella dorcas</i> in Appendix I	16
CoP14 Prop. 12 Inclusion of Slender-horned Gazelle <i>Gazella leptoceros</i> in Appendix I	16
CoP14 Prop. 13 Transfer of the Black Caiman <i>Melanosuchus niger</i> population of Brazil from Appendix I to Appendix II	17
CoP14 Prop. 14 Transfer of the Beaded Lizard subspecies <i>Heloderma horridum charlesbogerti</i> from Appendix II to Appendix I	18
CoP14 Prop. 15 Inclusion of Porbeagle <i>Lamna nasus</i> in Appendix II with annotation	19
CoP14 Prop. 16 Inclusion of Spiny Dogfish <i>Squalus acanthias</i> in Appendix II with annotation	20
CoP14 Prop. 17 Inclusion of Sawfish family Pristidae spp. in Appendix I	21
CoP14 Prop. 18 Inclusion of European Eel <i>Anguilla anguilla</i> in Appendix II	22
CoP14 Prop. 19 Inclusion of Banggai Cardinal fish <i>Pterapogon kauderni</i> in Appendix II	23
CoP14 Prop. 20 Inclusion of the spiny lobsters <i>Panulirus argus</i> and <i>Panulirus laeviscauda</i> from Brazil in Appendix II	24
CoP14 Prop. 21 Inclusion of <i>Corallium</i> spp in Appendix II	25
CoP14 Prop. 22 Deletion of Arizona Agave <i>Agave arizonica</i> from Appendix I	26
CoP14 Prop. 23 Transfer of Dehesa Bear-grass <i>Nolina interrata</i> from Appendix I to Appendix II, including all parts and derivatives	27
CoP14 Prop. 24 Deletion of <i>Pereskia</i> spp. and <i>Quiabentia</i> spp. from Appendix II	28
CoP14 Prop. 25 Deletion of <i>Peresklopsis</i> spp. from Appendix II	29
CoP14 Prop. 26 Merging and amendment of annotations #1, #4 and #8	29
CoP14 Prop. 27 Amendment of the annotations to various plant taxa	31
CoP14 Prop. 28 Deletion of Oconess Bells <i>Shortia galacifolia</i> from Appendix II	32
CoP14 Prop. 29 Amendment of the annotation to <i>Euphorbia</i> spp. included in Appendix II	33
CoP14 Prop. 30 Inclusion of Pau Brazil <i>Caesalpinia echinata</i> in Appendix II, including all parts and derivatives	34
CoP14 Prop. 31 Inclusion of the rosewoods <i>Dalbergia retusa</i> and <i>Dalbergia granadillo</i> in Appendix II	35
CoP14 Prop. 32 Inclusion of Honduras Rosewood <i>Dalbergia stevensonii</i> in Appendix II	36

CoP14 Prop. 33 Inclusion of <i>Cedrela</i> spp. in Appendix II	37
Background to Analyses of Proposals 34–37: Orchids and <i>Taxus</i>	37
Introduction and background to the orchid proposals	39
CoP14 Prop. 34 Amendment of the annotation to Orchidaceae spp. included in Appendix II	43
CoP14 Prop. 35 Amendment of the annotation to Orchidaceae spp. included in Appendix II	44
CoP14 Prop. 36 Amendment of the listing of <i>Taxus cuspidata</i> in Appendix II	46
CoP14 Prop. 37 Deletion of the annotation to <i>Taxus chinensis</i> , <i>Taxus fuana</i> and <i>Taxus sumatrana</i> in Appendix II	47
Annexes	49

Transfer of *Nycticebus* spp. from Appendix II to Appendix I.

Proponent: Cambodia.

Summary: The lorises of the genus *Nycticebus* are prosimians, an ancient group of nocturnal primates. Current CITES taxonomy recognises two species, *N. coucang* and *N. pygmaeus*. The Supporting Statement recognises three species (*Nycticebus bengalensis*, *Nycticebus pygmaeus*, *Nycticebus coucang*) whereas some other authors recognise four or more. They occur in South and South-East Asia, from north-east India and southern China south to western Indonesia. There are very few population data and estimates of wild population sizes vary greatly. All species are relatively widespread but populations are believed to have been affected by deforestation and exploitation. The precise impacts of habitat conversion remain unclear as according to some reports lorises may adapt quite well to fragmented and secondary forests. They are relatively long-lived (up to 20 years), and have a low reproductive rate for primates their size: females do not give birth until they are 3.5 years old, thereafter producing one young every two years or so. There is apparently extensive, but largely unquantified, domestic use of all the species for pets, food and traditional medicine in several range States, as well as demand for regional and international pet markets.

Nycticebus coucang was listed in Appendix II in 1975; all other species were included when the order Primates was included in Appendix II in 1977. The CITES Trade Data show that since the original listing, about 860 live wild *N. coucang* (including *N. bengalensis*) have been reported as exports, mainly from the range States Lao PDR, Thailand and Singapore, with a peak of 375 in 1987 and dropping to almost nil in 2005. Japan, Singapore, the USA and China were the main importers, with Singapore re-exporting many of their imports. Illegal trade has been reported for all species from a number of range States but is almost entirely unquantified. There is also some reported trade in captive-bred specimens. The species are protected nationally in most countries, and are known to occur in protected areas in several countries. *N. coucang* (including *N. bengalensis*) and *N. pygmaeus* have been captive-bred but the numbers involved are not known.

The proponent seeks to transfer the genus *Nycticebus* from Appendix II to Appendix I in accordance with Article II, paragraph 1, of the Convention, and with criteria A i) and v) as well as C i) and ii) of Resolution Conf. 9.24 (Rev. CoP 13), Annex 1, for *Nycticebus bengalensis* and *Nycticebus pygmaeus* and criteria C i) and ii) of Resolution Conf. 9.24 (Rev. CoP 13), Annex 1, for *Nycticebus coucang*.

Analysis: There is insufficient information to determine whether any of the *Nycticebus* species meets the biological criteria for inclusion in Appendix I, whether two or three species are recognised. None of the species has a restricted area of distribution and it seems unlikely that any has a small wild population according to the guidelines in Resolution Conf. 9.24 (Rev. CoP 13) (although this could conceivably be the case for *N. pygmaeus* were its population in Lao PDR to be much lower than is generally assumed). In the absence of historical population data, population declines are inferred from declines in extent of available habitat and the presumed impact of other factors. Habitat loss has been considerable through much of the range of each of the species although it is again not clear that resulting overall population declines would qualify the species for inclusion in Appendix I under the guidelines in Resolution Conf. 9.24 (Rev. CoP 13), particularly as *Nycticebus* species reportedly adapt quite well to secondary habitats. The species are in international trade, but current information indicates that the extent of that trade is relatively limited and its impact likely to be insignificant compared with other factors.

Deletion of Bobcat *Lynx rufus* from Appendix II.

Proponent: The United States of America.

Summary: The Bobcat *Lynx rufus* is a medium-sized, spotted cat. It is the most widely distributed native felid in North America, ranging from British Columbia, Canada to Oaxaca, Mexico. It is one of four currently recognised members of the genus *Lynx*, the others being the American Lynx *Lynx canadensis*, the Eurasian Lynx *Lynx lynx* and the Iberian Lynx *Lynx pardinus*. In 1981 a population of 725 000 to 1 017 000 Bobcats was estimated in the USA and this is likely to have increased during the past decade. No population figure is available for Canada, but the Bobcat is not considered threatened. A population assessment of the Bobcat in Mexico should be completed in 2007; anecdotal reports suggest it is relatively abundant in many areas. The Bobcat is currently classified as Least Concern (assessed 2002) in the IUCN Red List of Threatened Species.

Management programmes in the USA and Canada are considered the most advanced for commercial exploitation of feline furbearers and to result in sustainable harvests. The species was included in the general listing of the family Felidae in Appendix II in 1977. In 1983, the Parties agreed not to remove it from Appendix II for reasons of similarity of appearance to other spotted cats that were deemed threatened by trade. A proposal to delete *L. rufus* from Appendix II was considered again at CoP 13. As there were still concerns by some Parties about potential look-alike problems, it was agreed that the Animals Committee would carry out a review focussing on the *Lynx* complex to determine whether these species are actually confused in trade or whether look-alike problems are hypothetical. A subsequent TRAFFIC North America study found that, in the opinion of fur industry experts, distinguishing *L. rufus* parts, pieces and derivatives from those of *L. canadensis* (which shares part of its range with *L. rufus*) is not difficult, and can be accomplished with limited experience and/or training. However this study did not consider trade in Eurasian felid species and/or the risk of Eurasian cat species entering the trade by being misidentified as *L. rufus*. The study did not examine the ease or difficulty in distinguishing *L. rufus* from other genera of cats, or what level of identification training Customs and wildlife enforcement officers of all of the CITES Parties would require if *L. rufus* were removed from Appendix II. The possibility of confusing *L. rufus* pelts with skins from a number of Latin American spotted cat species had also not been considered. A consultation with the US National Fish and Wildlife Forensics Laboratory revealed that pieces of Bobcat skins cannot be distinguished from other *Lynx* species. However these were a relatively minor part of *Lynx* species trade between 1980 and 2004 when 78% of traded items consisted of whole skins. During the same period, the USA was by far the biggest exporter of *L. rufus* items (exporting or re-exporting 82% of items), followed by Canada (13%) and the remaining 5% by other countries, including less than 0.05% that were exported or re-exported by Mexico. During this period the *documented* volume of illegal trade in *Lynx* spp. was only 0.2% of total trade. This low figure suggests the illegal trade in *Lynx* spp. is not a major problem, although it is not possible to determine how representative these data are of the actual total global illegal trade. The legal and illegal trade in *Lynx* spp. was dominated by *L. rufus* between 1980 and 2004. A recent TRAFFIC North America survey of the fur industry found that international, European and Asian markets seem to prefer *L. rufus* and *L. canadensis* over other *Lynx* species. The proponent points out that the ready availability of legally acquired *L. rufus* in markets is a safeguard against the illegal take and trade of other *Lynx* species. In addition the USA survey of range countries for the Review of the Appendices by the Animals Committee showed that trade in *L. lynx* and *L. pardinus* is well controlled. The legal trade in *L. rufus* skins steadily increased between 1998 and 2004 suggesting there is a growing market for products made from the species. The fur industry survey showed that at the wholesale/manufacturing level, the demand for *L. rufus* has increased over the past five years. This survey also revealed that if *L. rufus* were de-listed, fur industry experts thought the demand and price of its fur might increase or remain the same.

The proponent seeks to delete *Lynx rufus* from Appendix II as neither domestic nor international trade threaten the species, it is very well managed, harvest and trade are well regulated, and inclusion of the species in Appendix II due to similarity of appearance to other felids is no longer warranted.

Analysis: The Bobcat is a widespread species with a large global population, currently classified as Least Concern by IUCN. There is considerable trade in Bobcat fur, but management programmes in the two main range States are believed to result in sustainable harvests. It therefore appears unlikely that deletion from Appendix II will result in the species qualifying for inclusion in the Appendices under Annex 2 a of Resolution Conf. 9.24 (Rev CoP13) in the near future.

However there are still potential look-alike problems with some Eurasian and Latin American cat species, particularly other members of the genus *Lynx*, including *Lynx pardinus*, listed in Appendix I, which have not

been considered by studies so far. In particular pieces of *L. rufus* skins cannot be distinguished from other *Lynx* species. Although whole skins form the major part of trade items, the second most common items legally traded are skin pieces or scraps. *L. rufus* therefore appears to meet Criterion A of Annex 2 b of Resolution Conf. 9.24 (Rev. CoP13), which provides for inclusion in Appendix II for look-alike reasons.

CoP 14 Prop. 3

Transfer of the population of Leopard *Panthera pardus* in Uganda from Appendix I to Appendix II.

with an annotation that reads:

- 1) For the exclusive purpose of sport hunting for trophies and skins for personal use, to be exported as personal effects; and
- 2) With an export quota of 50 Leopards for the whole country.

Proponent: Uganda.

Summary: The Leopard *Panthera pardus* occurs widely in Asia, the Middle East and Africa, including Uganda. The species as a whole is currently classified as Least Concern by IUCN (assessed 2002). An up-to-date Leopard population estimate and trend in population are not available for Uganda. In 1987 the population in Uganda was estimated at 4 292 (range 2 361–7 854, 95% confidence limits), based on a model relating Leopard densities to habitat extent and rainfall, applied across sub-Saharan Africa. This model is now believed to have overestimated Leopard densities in some cases, particularly in tropical moist forests, which comprise at least a portion of Leopard habitat in Uganda. The species is said still to occur widely in Uganda, but recent camera-trap surveys failed to find evidence of Leopards in a number of forested sites still officially considered to be Leopard habitat. Although the Leopard can thrive in altered natural habitats, conversion of wild lands for agriculture has brought the species into escalating conflict with people and, in general, population densities outside protected areas are much lower than those within. Agriculture has also fragmented Leopard habitats. Within Uganda, threats to Leopards increased in 2000 when the government launched a Plan for the Modernisation of Agriculture to convert current subsistence farming (on which 80% of Ugandans depend) to commercial agriculture. Recently, further Government plans were announced to degazette some protected rainforests for commercial agriculture. If implemented, these would be likely to reduce further the suitability of Leopard habitats and possibly bring Leopards into increased conflict with people. The quota of 50 Leopards a year that is proposed for Uganda is intended as a precautionary combined animal control and sport hunting based figure. The aim is to generate economic benefits that would motivate communities, game ranchers and local governments to protect Leopards instead of treating them as vermin.

The proponents consider that sport hunting would add a sufficiently high economic value to the Leopard to change the attitudes of rural people who currently regard it as a threat to their livelihoods. They note that in Uganda all wildlife utilisation, including sport hunting, is subject to licensing laws, with legislative measures in place to allow for penalisation of anyone engaged in illegal wildlife trade. They state that skin exports would be controlled by tagging and that the Uganda Wildlife Authority is able to determine trends in exploitation, carry out non-detriment findings and can respond in time if monitoring of Leopards reveals that sport hunting is detrimental to the species' survival in the wild. However, it has been suggested that there is currently insufficient information to determine a sustainable off-take of Leopards in Uganda and that it is possible that an annual quota of 50 may be too high.

The Leopard has been included in CITES Appendix I since 1975. Since CoP 4, a system has been in place for exporting Leopards under quota from some other African countries for primarily non-commercial purposes. At present such exports are under Resolution Conf. 10.14 (Rev. CoP 13) (Quotas for Leopard hunting trophies and skins for personal use). Countries concerned and their quotas are: Botswana (130); Central African Republic (40); Ethiopia (500); Kenya (80); Malawi (50); Mozambique (60); Namibia (250); South Africa (150); United Republic of Tanzania (500); Zambia (300); Zimbabwe (500). CITES trade data indicate that in the past few years these countries have generally exported considerably fewer specimens than allowed for in their quotas.

Uganda seeks to transfer its population of Leopard from Appendix I to Appendix II subject to an annual quota of 50 animals obtained from sport hunting, for trophies and skins for personal use to be exported as personal effects.

Analysis: To be transferred to Appendix II the Ugandan population of the Leopard should no longer meet the criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP.13). Although its range may have contracted in Uganda, it does not appear to have a restricted area of distribution. There is no quantitative information on current trends in Leopard numbers in Uganda. The population is inferred to have declined through decreasing availability of habitat and prey and increased mortality as a result of conflicts with humans although it is not clear that any rate of decline would be within the general guidelines suggested in Resolution Conf. 9.24 (Rev. CoP.13) (50% within three generations or ten years, whichever is the longest). However, it is possible that the Leopard in Uganda has a small population according to the guidelines in Resolution Conf. 9.24 (Rev. CoP.13) (5 000 or fewer) and that this population is declining. The Ugandan population of Leopard may therefore still meet the criteria for inclusion in Appendix I.

The proposed export quota is considered by the proponents to be precautionary, but no basis for its derivation is provided.

Annex 3 of Resolution Conf. 9.24 (Rev. CoP 13) states that listing of species in more than one Appendix should be avoided in general. When split-listing does occur, this should generally be on the basis of national or continental populations, rather than subspecies.

It appears that retaining the Ugandan population of the Leopard in Appendix I and applying for an export quota under Resolution Conf.10.14 (Rev. CoP.13) or any successor would essentially have the same effect as the present proposal. Such an approach would be consistent with current treatment of national populations of eleven other Leopard range States.

Introduction to the African Elephant *Loxodonta africana* proposals

The conservation and management of African Elephants has been a matter of considerable debate and controversy both within the arena of CITES and beyond it. Disagreement may be based as much on differences in philosophy and outlook as on differing interpretations of data. This, along with the extraordinarily high public profile of the species concerned, has ensured that discussions concerning elephants and CITES are often polarised and highly politicised. This places independent reviewers in a very difficult position and seriously compromises their ability to contribute constructively. In view of this, we provide a short account of the procedures that have been followed under CITES since African Elephants were first transferred to Appendix I in 1989, and summary analyses of proposals CoP 14 Prop. 4, 5 and 6. The analyses are confined as far as possible to brief statements of fact on these proposals, strictly within the terms of resolution Conf. 9.24 (Rev. CoP13) and other relevant resolutions and decisions of the CoP. Trade in elephants will also be discussed under Agenda Item 54.

The African Elephant was included in Appendix II in 1977 and was transferred to Appendix I in 1989. At that time, the Parties recognised that populations of the species from certain range States might not have met the Berne Criteria for inclusion in Appendix I, these being the criteria then used by Parties (now replaced by Resolution Conf. 9.24 (Rev. CoP13)). The Parties therefore approved (in Resolution Conf. 7.9, now replaced by resolution Conf. 10.9) a special mechanism, a review by a Panel of Experts, to serve as the basis for approving the transfer of certain populations of the species from Appendix I to Appendix II (but not to review amendment proposals for Appendix-II listed populations). They have also mandated a dialogue process for African Elephant range States.

Tenth meeting of the Conference of the Parties Harare (Zimbabwe), 9–20 June 1997 (CoP 10)

Botswana, Namibia and Zimbabwe all submitted proposals for consideration at CoP 10. Following review by the Panel of Experts, modified versions of the proposals were accepted by the Parties, who also adopted two Decisions (10.1 and 10.2) and two Resolutions on trade in elephants or elephant products. Acceptance of the proposals resulted in the African Elephant populations of Botswana, Namibia and Zimbabwe being transferred from Appendix I to Appendix II subject to annotations that allowed for trade in, depending on the country, hunting trophies, live animals, hides, leather goods and ivory carvings, and an experimental one-off export of raw ivory to Japan under conditions set out in Decision 10.1. All other specimens were deemed to be specimens of species included in Appendix I and the trade in them regulated accordingly.

Included in Decision 10.1 was the condition that trade in ivory could not resume until the relevant range States, the CITES Secretariat, TRAFFIC International and any other approved party agreed international systems for reporting and monitoring legal and illegal international trade and illegal hunting within elephant range States. Resolution Conf. 10.10, regarding trade in ivory specimens (one of a succession of resolutions that dealt with these issues), made a series of recommendations regarding marking of ivory, control of ivory

trade, assistance to elephant range States and quotas for and trade in raw ivory. It also agreed that, regarding monitoring of illegal hunting of and trade in elephant specimens, a comprehensive, international monitoring system would be established under the supervision and direction of the Standing Committee. The Elephant Trade Information System (ETIS) and Monitoring Illegal Killing of Elephants (MIKE) have subsequently become the two designated monitoring systems for elephants under the Convention.

Decision 10.1 also determined that the Standing Committee should set in motion a mechanism for the transfer of elephant populations from Appendix II to Appendix I in the event of non-compliance with the conditions of Decision 10.1 or of the escalation of illegal hunting of elephants and/or trade in elephant products owing to the resumption of legal trade. The Decision also stated that the Standing Committee would identify, in co-operation with range States, any negative impacts of this conditional resumption of trade and determine and propose corrective measures.

Decision 10.2 set out conditions for the disposal of ivory stocks and the generation of resources for conservation in African Elephant range States. The Decision allowed for a one-off purchase for non-commercial purposes of government stocks declared by African Elephant range States to the CITES Secretariat within the 90-day period before the transfer to Appendix II of any African Elephant populations. The mechanism only applied to those range States wishing to dispose of ivory stocks and agreeing to and participating in the systems for monitoring trade and illegal killing of elephants outlined in Decision 10.1. Range States participating in this scheme were to agree that all revenues from any purchase of stockpiles by donor countries and organisations would be deposited in and managed through conservation trust funds.

With all conditions having been met, auctions of the experimental quotas of ivory detailed in the annotation were held in Botswana, Namibia and Zimbabwe between 7 and 18 April 1999. The ivory arrived in Japan in July 1999 and was delivered to its buyers.

Resolution Conf. 10.9 set out revised terms of reference for a Panel of Experts to review any future proposals to transfer populations of the African Elephant from Appendix I to Appendix II.

Eleventh meeting of the Conference of the Parties Gigiri (Kenya), 10–20 April 2000 (CoP 11)

Botswana, Namibia and Zimbabwe submitted proposals to CoP 11 to amend the annotations for their elephant populations, all entailing, amongst other things, a specified annual export quota of raw ivory, subject to various provisions. South Africa submitted a proposal to transfer its population of African Elephant from Appendix I to Appendix II with an annotation that included provision for an experimental export quota of raw ivory. Kenya jointly with India submitted a proposal to transfer all the current Appendix-II populations to Appendix I. Switzerland submitted a proposal to amend the existing annotation with respect to trade in live animals. Following discussions at the fourth dialogue meeting of African Elephant range States held immediately before CoP 11, and the African regional meeting during CoP 11, Botswana, Kenya and India, Namibia and Zimbabwe all agreed to withdraw their proposals. The South African proposal, which had been reviewed by a Panel of Experts under the terms of Resolution Conf. 10.9, was accepted in revised form, with a zero export quota for ivory. The Swiss proposal was also accepted.

Twelfth meeting of the Conference of the Parties Santiago (Chile), 3–15 November 2002 (CoP 12)

At CoP 12, Botswana, Namibia, South Africa and Zimbabwe again submitted proposals that included specified annual export quotas of raw ivory, along with other amendments to the existing annotation. Zambia submitted a proposal to transfer its elephant population from Appendix I to Appendix II, and Kenya together with India again submitted a joint proposal to transfer all the current Appendix-II populations to Appendix I. The proposals from Botswana, Namibia and South Africa were accepted in amended form, most notably without any provision for annual export quotas of raw ivory but with an allowance for another conditional one-off sale of raw ivory for each country (20 t for Botswana, 10 t for Namibia and 30 t for South Africa). The proposals from Zambia and Zimbabwe were rejected and that from Kenya and India withdrawn. The Parties also revised Resolution Conf. 10.10 at this meeting and agreed a series of decisions (nos 12.36–12.39) regarding control of internal ivory trade particularly in the ten countries known to have active internal ivory markets. The Secretariat was asked to determine for each country whether there were adequate controls over the domestic ivory market in place and, if not, to seek an action plan from that country to develop and implement such controls.

Thirteenth meeting of the Conference of the Parties Bangkok (Thailand), 2–14 October 2004 (CoP 13)

At CoP 13, South Africa and Namibia submitted proposals concerning elephants. The former, a minor amendment to the annotation for the South African population (to allow trade in leather goods for commercial purposes), was accepted. Namibia submitted a proposal to amend the annotation for its population which included provision for an annual export quota for raw ivory. This was rejected by the CoP, but an amendment to allow trade in specific, individually-marked and certified worked ivory products – known as *ekipas* - for

non-commercial purposes was adopted. During the same meeting, in response to the outcomes from implementation of Decisions 12.36–12.39, the Parties adopted an *Action plan for the control of trade in African elephant ivory* (Decision 13.26). This decision addressed one of the key findings of the ETIS analysis of ivory seizure data which demonstrated that illegal trade in ivory was most directly correlated to the presence of large-scale, unregulated domestic ivory markets in Africa and Asia.

The current listings for African Elephant in the CITES Appendices are as follows:

Populations of Botswana, Namibia and South Africa (listed in Appendix II):

For the exclusive purpose of allowing:

- 1) trade in hunting trophies for non-commercial purposes;
- 2) trade in live animals for in situ conservation programmes;
- 3) trade in hides;
- 4) trade in leather goods for non-commercial purposes for Botswana; for commercial or non-commercial purposes for Namibia and South Africa;
- 5) trade in hair for commercial or non-commercial purposes for Namibia;
- 6) trade in individually marked and certified ekipas incorporated in finished jewellery for non-commercial purposes for Namibia; and
- 7) trade in registered raw ivory (for Botswana and Namibia, whole tusks and pieces; for South Africa, whole tusks and cut pieces of ivory that are both 20 cm or more in length and 1 kg or more in weight) subject to the following:
 - i) only registered government-owned stocks, originating in the State (excluding seized ivory and ivory of unknown origin) and, in the case of South Africa, only ivory originating from the Kruger National Park);
 - ii) only to trading partners that have been verified by the Secretariat, in consultation with the Standing Committee, to have sufficient national legislation and domestic trade controls to ensure that the imported ivory will not be re-exported and will be managed in accordance with all requirements of Resolution Conf. 10.10 (Rev. CoP 12) concerning domestic manufacturing and trade;
 - iii) not before the Secretariat has verified the prospective importing countries, and the MIKE programme has reported to the Secretariat on the baseline information (e.g. elephant population numbers, incidence of illegal killing);
 - iv) a maximum of 20 000 kg (Botswana), 10 000 kg (Namibia) and 30 000 kg (South Africa) of ivory may be traded, and despatched in a single shipment under strict supervision of the Secretariat;
 - v) the proceeds of the trade are used exclusively for elephant conservation and community conservation and development programmes within or adjacent to the elephant range; and
 - vi) only after the Standing Committee has agreed that the above conditions have been met.

On a proposal from the Secretariat, the Standing Committee can decide to cause this trade to cease partially or completely in the event of non-compliance by exporting or importing countries, or in the case of proven detrimental impacts of the trade on other elephant populations.

All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly.

Population of Zimbabwe (listed in Appendix II):

For the exclusive purpose of allowing:

- 1) export of hunting trophies for non-commercial purposes;
- 2) export of live animals to appropriate and acceptable destinations;
- 3) export of hides; and
- 4) export of leather goods and ivory carvings for non-commercial purposes.

All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly. To ensure that where a) destinations for live animals are to be appropriate and acceptable and/or b) the purpose of the import is to be non-commercial, export permits and re-export certificates may be issued only after the issuing Management Authority has received, from the Management Authority of the State of import, a certification to the effect that: in case a), in analogy to Article III, paragraph 3 (b) of the Convention, the holding facility has been reviewed by the competent Scientific Authority, and the proposed recipient has been found to be suitably equipped to house and care for the

animals; and/or in case b), in analogy to Article III, paragraph 3 (c), the Management Authority is satisfied that the specimens will not be used for primarily commercial purposes.

The elements of these annotations are set out in Table 1. Regarding the export of registered raw ivory from Botswana, Namibia and South Africa, both China and Japan have asked to be assessed as prospective trading partners under the terms of the existing annotations. Assessment missions have taken place and, at its 54th meeting, held in October 2006, the Standing Committee designated Japan as a trading partner for raw ivory under the terms of the existing annotation but also asked the Secretariat to present an update on the situation at the Committee's 55th meeting (to be held immediately before CoP 14). No decision has yet been made regarding China as a trading partner.

According to condition iii) in the current annotation, the export of raw ivory cannot take place until the MIKE programme has reported to the Secretariat on the baseline information (e.g. specific site-based data on elephant population numbers, incidences of illegal killing, law enforcement efforts and other factors against which future trends will be modelled). At its 53rd meeting, the Standing Committee established some criteria for determining when the baseline data could be judged complete under the terms of this condition. At its 54th meeting the Committee agreed that the data were not yet complete, and asked the Secretariat to submit the complete information at the 55th meeting. Because of this the export of raw ivory allowed under the one-off sale agreed at CoP 12 in 2002 has not taken place.

Table 1: Summary of trade allowed under current annotations for Appendix II African Elephant populations in Botswana, Namibia, South Africa and Zimbabwe

Elements of annotations	Botswana	Namibia	South Africa	Zimbabwe
export/trade in hunting trophies for non-commercial purposes	✓	✓	✓	✓
trade in live animals for <i>in situ</i> conservation programmes	✓	✓	✓	
export of live animals to appropriate and acceptable destinations				✓
export/trade in hides	✓	✓	✓	✓
export/trade in leather goods	non-commercial purposes	commercial or non-commercial purposes	commercial or non-commercial purposes	non-commercial purposes
export of ivory carvings				non commercial purposes
trade in hair		commercial or non-commercial purposes		
trade in individually marked and certified <i>ekipas</i> incorporated in finished jewellery for non-commercial purposes		✓		
trade in registered raw ivory subject to the following:	whole tusks and pieces	whole tusks and pieces	whole tusks and cut pieces of ivory that are both 20 cm or more in length and 1 kg or more in weight	
i) only registered government-owned stocks	originating in the State (excluding seized ivory and ivory of unknown origin)	originating in the State (excluding seized ivory and ivory of unknown origin)	only ivory originating from the Kruger National Park	
ii) only to trading partners that have been verified by the Secretariat, in consultation with the Standing	✓	✓	✓	

Elements of annotations	Botswana	Namibia	South Africa	Zimbabwe
Committee, to have sufficient national legislation and domestic trade controls to ensure that the imported ivory will not be re-exported and will be managed in accordance with all requirements of Resolution Conf. 10.10 (Rev. CoP 12) concerning domestic manufacturing and trade				
iii) not before the Secretariat has verified the prospective importing countries, and the MIKE programme has reported to the Secretariat on the baseline information (e.g. elephant population numbers, incidence of illegal killing)	✓	✓	✓	
iv) maximum amount of ivory that may be traded, and despatched in a single shipment under strict supervision of the Secretariat	20 000 kg	10 000 kg	30 000 kg	
v) the proceeds of the trade are used exclusively for elephant conservation and community conservation and development programmes within or adjacent to the elephant range	✓	✓	✓	
vi) only after the Standing Committee has agreed that the above conditions have been met.	✓	✓	✓	

CoP 14 Prop. 4

Maintenance of the populations of African Elephant *Loxodonta africana* of Botswana, Namibia, South Africa and Zimbabwe in Appendix II, with the replacement of all existing annotations with the following annotation:

"1) The establishment of annual export quotas for trade in raw ivory is determined in accordance with Resolution Conf. 10.10 (Rev. CoP 12);

2) Trade in raw ivory is restricted to trading partners that have been certified by the Secretariat, in consultation with the Standing Committee, to have sufficient national legislation and domestic trade controls to ensure that the imported ivory will not be re-exported and will be managed in accordance with the requirements of Resolution Conf. 10.10 (Rev. CoP 12) concerning manufacturing and trade; and

3) The proceeds of the trade in raw ivory are to be used exclusively for elephant conservation and community development programmes."

Proponent: Botswana and Namibia.

Summary: See introduction to the African Elephant proposals for details of the history of treatment of this species under CITES and for the relevant current annotations of the elephant populations of Botswana, Namibia, South Africa and Zimbabwe.

According to the 2007 African Elephant Status Report, populations in the four countries are as follows:

Botswana: in 2006 – 133 829 definite, 20 829 probable and 20 829 possible;
in 2002 – 100 629 definite; 21 237 probable and 21 237 possible.

Namibia: in 2006 – 12 531 definite, 3 276 probable and 3 296 possible;
in 2002 – 7 769 definite, 1 872 probable and 1 872 possible.

South Africa: in 2006 – 17 847 definite and 638 possible;
in 2002 – 14 071 definite and 855 possible.

Zimbabwe: in 2006 – 84 416 definite, 7 033 probable and 7 367 possible;
in 2002 – 81 555 definite, 7 039 probable and 7 373 possible.

Analysis: The proponents seek an annual commercial export quota for raw ivory and may thus be interpreted as adhering to paragraph C 1) of Annex 4 of Resolution Conf. 9.24 (Rev. CoP 13) which states: 'If a Party wishes to renew, amend or delete a quota [established in accordance with Para A 2 c. of Annex 4] it shall submit an appropriate proposal for consideration at the next meeting of the Conference of the Parties.'

There are no explicit guidelines in the Convention or in resolutions of the CoP for assessing such requests. However, because the relevant annotation indicates that all specimens of African Elephant in the countries concerned other than those specified in the annotation should be treated as if they were of specimens in Appendix I, the terms of Paragraph A 2 c would appear to apply. These are: 'an integral part of the amendment proposal is an export quota or other special measure approved by the Conference of the Parties, based on management measures described in the supporting statement of the amendment proposal, provided that effective enforcement controls are in place;'. No quotas are given in the current proposal. The proponents however may argue that the establishment of annual export quotas on the basis of Resolution Conf. 10.10 (Rev. CoP 12) can be considered as some 'other special measure' as allowed for in this paragraph.

Of greater ambiguity is the interpretation of the Convention and its resolutions with respect to those parts of the proposal that do not concern ivory. There appear to be three main ways in which the Parties could decide on an interpretation:

Reversion of all specimens not covered by part 7 of the existing annotation to Appendix I regulation.

As noted by the Secretariat in its preliminary comments on proposals to amend Appendices I and II, Resolution Conf. 11.21 (Rev. CoP 13) states: 'for species transferred from Appendix I to II subject to an annotation that specifies the types of specimen included in the Appendix, specimens that are not specifically included in the annotation shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly'. As these populations were transferred from Appendix I to Appendix II under these conditions (albeit at CoP 10, before this Resolution came into effect), it would appear that the current proposal would also have the effect of reverting all other specimens covered by the existing annotation for Botswana, Namibia, South Africa and Zimbabwe to Appendix I regulation (see Table 1 in introduction to the elephant proposals). This reversion may, arguably, apply to the stockpiled ivory that is the subject of part 7 of the existing annotation covering the populations of Botswana, Namibia and South Africa, although as it would not come into effect until 90 days after its adoption, there would be a window in which export of this ivory could take place if the provisions in the current annotation were to be met.

All specimens of the elephant populations of Botswana, Namibia, South Africa and Zimbabwe to be regulated under Appendix II with no special provisions other than for raw ivory

From the supporting statement it is clear that this option is the intent of the proposal. It may be argued on the one hand that the fact that this is not explicit in the phrasing of the proposed annotation is a drafting oversight that can be modified by the proponents without altering the substance of the proposal. On the other hand it may be argued that such a modification would result in an increase in scope of the proposal, which is not allowed under Rule 22 of the Rules of Procedure of the meetings of the Conference of the Parties.

If the Parties decide to accept the first of these arguments, the proposal would allow *inter alia* for the following kinds of trade, not allowed for in the current annotations:

- trade in leather goods for commercial purposes for Botswana and Zimbabwe;
- trade in hair for commercial and non-commercial purposes for Botswana, South Africa and Zimbabwe;
- trade in worked ivory for South Africa and Botswana; and
- trade in worked ivory products other than *ekipas* for Namibia.

With regards to trade in worked ivory, Botswana is not known to have any ivory processing industries; the situation in South Africa is unclear. Any domestic processing and trade in ivory should be in conformity with the relevant parts of Resolution Conf. 10.10 (Rev. CoP 12). Trade in worked ivory does not form part of the proposal submitted by Botswana regarding its own population of elephants (Proposal 5).

With respect to trade in hair, the CITES Secretariat has already given an opinion to South Africa that as trade in hides is allowed, and hair is embedded in raw salted hides, the Parties have already *de facto* approved trade in hairs (the current exemption for Namibia is apparently intended to address tail hair and products made from tail hair, although this is not explicit).

No change to those parts of the existing annotation that deal with specimens other than raw ivory

The Parties may decide that the proposal deals only with those parts of the existing annotations concerning raw ivory so that other parts of the annotations would remain unchanged were the proposal to be adopted.

General observations

The African Elephant populations of Botswana, Namibia, South Africa and Zimbabwe do not appear to meet the criteria for inclusion in Appendix I under Resolution Conf. 9.24 (Rev. CoP 13).

Annex 3 of Resolution Conf. 9.24 (Rev. CoP 13) states that listing of species in more than one Appendix should be avoided in general. When split-listing does occur, this should generally be on the basis of national or continental populations, rather than subspecies. This is presently the case.

Both China and Japan have asked to be assessed as prospective trading partners under the terms of the existing annotations. Assessment missions have taken place and, at its 54th meeting, held in October 2006, the Standing Committee designated Japan as a trading partner for ivory under the terms of the existing annotation but also asked the Secretariat for an update on the situation to be discussed at the Committee's 55th meeting (held immediately before CoP 14). No decision has yet been made regarding China as a trading partner.

CoP 14 Prop. 5

Amendment of the annotation to the population of African Elephant *Loxodonta africana* of Botswana to read:

"For the exclusive purpose of allowing in the case of the population of Botswana:

- 1) trade in hunting trophies for non-commercial purposes;**
- 2) trade in hides for commercial purposes;**
- 3) trade in leather goods for commercial purposes;**
- 4) trade in live animals for commercial purposes to appropriate and acceptable destinations (and as determined by the national legislation of the country of import);**
- 5) trade annually in registered stocks of raw ivory (whole tusks and pieces of not more than 8 tonnes) of Botswana origin owned by the Government of Botswana for commercial purposes only with trading partners that have been certified by the Secretariat, in consultation with the Standing Committee, to have sufficient national legislation and domestic trade controls to ensure that the imported ivory will not be re-exported and will be managed in accordance with the requirements of Resolution Conf. 10.10 (Rev. CoP 12) concerning manufacturing and trade; and**
- 6) trade in registered stocks of raw ivory (whole tusks and pieces of not more than 40 tonnes) of Botswana origin owned by the Government for commercial purposes on a one-off sale immediately after the adoption of the proposal. Botswana will trade only with trading partners that have been certified by the Secretariat, in consultation with the Standing Committee, to have sufficient national legislation and domestic trade controls to ensure that the imported ivory will not be re-exported and will be managed in accordance with the requirements of Resolution Conf. 10.10 (Rev. CoP 12) concerning manufacturing and trade.**

Proponent: Botswana.

Summary: See introduction to the African Elephant proposals for background information.

The elephant population in Botswana in 2006 was estimated at 133 829 definite, 20 829 probable and 20 829 possible. In 2002 the population was estimated at 100 629 definite; 21 237 probable and 21 237 possible.

This proposal would change the current listing of the African Elephant population of Botswana in the following ways:

Trade in live animals would now be allowed for commercial purposes to appropriate and acceptable destinations, while previously trade in live animals from Botswana was allowed only for *in situ* conservation programmes (at present commercial trade in live animals is allowed only from Zimbabwe).

Trade in leather goods would now be allowed for commercial purposes; at present such trade from Botswana is only allowed for non-commercial purposes (commercial trade is currently allowed from Namibia and South Africa).

An annual trade in registered stocks of raw ivory totalling not more than 8 tonnes to certified trading partners.

A one-off sale of accumulated raw ivory stocks as envisaged under current paragraph 7) of the existing annotation, although under simplified conditions and for 40 tonnes (the current annotation specifies 20 tonnes).

The statement 'all other specimens shall be deemed to be specimens of species included in Appendix I, and the trade in them shall be regulated accordingly' which currently applies would no longer appear.

Analysis: The proponents seek an annual commercial export quota for raw ivory and may thus be interpreted as adhering to paragraph C 1) of Annex 4 of Resolution Conf. 9.24 (Rev. CoP 13) which states: 'If a Party wishes to renew, amend or delete a quota [established in accordance with Para A 2 c. of Annex 4] it shall submit an appropriate proposal for consideration at the next meeting of the Conference of the Parties.' There are no explicit guidelines in the Convention or in resolutions of the CoP for assessing such requests. However, because the relevant annotation indicates that all specimens of African Elephant in the countries concerned other than those specified in the annotation should be treated as if they were of specimens in Appendix I, the terms of Paragraph A 2 c would appear to apply. These are: 'an integral part of the amendment proposal is an export quota or other special measure approved by the Conference of the Parties, based on management measures described in the supporting statement of the amendment proposal, provided that effective enforcement controls are in place'. No basis for the annual export quota of 8 tonnes of raw ivory is given. However, with a population of over 130 000 elephants, an accumulation of 8 tonnes per year retrieved from natural mortality and management measures seems plausible.

It is not completely clear from the proposal or supporting statement whether the 40 tonnes of raw ivory proposed for a one-off sale (part 6 of the proposed annotation) is in addition to or includes the 20 tonnes already included in part 7 of the existing annotation for the Botswanan population of African Elephant. However, the supporting statement indicates a current stockpile of 55 tonnes of raw ivory of which nearly 9 tonnes is confiscated poached ivory, leaving just over 46 tonnes of other ivory. This implies that the latter interpretation is intended, that is, that the proposal is effectively for an increase of 20 tonnes over the amount already agreed for export once the conditions in the existing annotation are met.

Both China and Japan have asked to be assessed as prospective trading partners under the terms of the existing African Elephant annotations. Assessment missions have taken place and, at its 54th meeting, held in October 2006, the Standing Committee designated Japan as a trading partner for ivory under the terms of the existing annotation but also asked the Secretariat for an update on the situation to be discussed at the Committee's 55th meeting (held immediately before CoP 14). No decision has yet been made regarding China as a trading partner.

With respect to trade in live animals and leather goods, no quota is proposed, so that the precautionary measures in paragraph A 2 b appear to apply (the Conference of the Parties must be satisfied with the implementation of the requirements of the Convention, in particular Article IV, and be satisfied that appropriate enforcement controls are in place). Details of proposed or actual rates of offtake for live animals or leather goods for commercial purposes are not provided in the supporting statement, nor are details of enforcement controls. However, given likely quantities in trade, and the current status of Botswana's elephant population, there is no reason to think that trade in these will not be in accordance with Article IV of the Convention. The IUCN/SSC African Elephant Specialist Group has prepared guidelines for the *in situ* translocation of the African Elephant for conservation purposes.

CoP 14 Prop. 6

A. Amendment of the annotation regarding the populations of African Elephant *Loxodonta africana* of Botswana, Namibia and South Africa to:

a) include the following provision:

"No trade in raw or worked ivory shall be permitted for a period of 20 years except for:

- 1) raw ivory exported as hunting trophies for non-commercial purposes; and**
- 2) ivory exported pursuant to the conditional sale of registered government-owned ivory stocks agreed at the 12th meeting of the Conference of the Parties"; and**

b) remove the following provision:

"6) trade in individually marked and certified *ekipas* incorporated in finished jewellery for non-commercial purposes for Namibia".

B. Amendment of the annotation regarding the population of African Elephant *Loxodonta africana* of Zimbabwe to read:

"For the exclusive purpose of allowing:

- 1) export of live animals to appropriate and acceptable destinations;
- 2) export of hides; and
- 3) export of leather goods for non-commercial purposes.

All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly.

No trade in raw or worked ivory shall be permitted for a period of 20 years.

To ensure that where a) destinations for live animals are to be appropriate and acceptable and/or b) the purpose of the import is to be non-commercial, export permits and re-export certificates may be issued only after the issuing Management Authority has received, from the Management Authority of the State of import, a certification to the effect that: in case a), in analogy to Article III, paragraph 3 (b) of the Convention, the holding facility has been reviewed by the competent Scientific Authority, and the proposed recipient has been found to be suitably equipped to house and care for the animals; and/or in case b), in analogy to Article III, paragraph 3 (c), the Management Authority is satisfied that the specimens will not be used for primarily commercial purposes."

Proponent: Kenya and Mali.

Summary: See introduction to the elephant proposals for background information.

According to the 2007 African Elephant Status Report, populations in the four countries are as follows:

Botswana: in 2006 – 133 829 definite, 20 829 probable and 20 829 possible;
in 2002 – 100 629 definite; 21 237 probable and 21 237 possible.

Namibia: in 2006 – 12 531 definite, 3 276 probable and 3 296 possible;
in 2002 – 7 769 definite, 1 872 probable and 1 872 possible.

South Africa: in 2006 – 17 847 definite and 638 possible;
in 2002 – 14 071 definite and 855 possible.

Zimbabwe: in 2006 – 84 416 definite, 7 033 probable and 7 367 possible;
in 2002 – 81 555 definite, 7 039 probable and 7 373 possible.

This proposal would change the current listing of the African Elephant populations in the Appendices as follows:

Trade in individually marked and certified *ekipas* incorporated in finished jewellery for non-commercial purposes for Namibia would no longer be permitted.

Export of hunting trophies for non-commercial purposes from Zimbabwe would no longer be permitted.

Export of ivory carvings for non-commercial purposes from Zimbabwe would no longer be permitted.

The proposal would have no effect on the current listings of the elephant populations of Botswana and South Africa.

In addition the proponents wish to add an annotation to the Appendices to the effect that, in the matter of raw and worked ivory, no change in the current listing for the populations of Botswana, Namibia, South Africa or Zimbabwe should be allowed to take place for 20 years (presumably from the time at which the proposal were to come into effect).

Analysis: The proposal seeks to broaden the categories of elephant specimens that should be, under the current wording 'deemed to be specimens of species included in Appendix I' for the Namibian and Zimbabwean populations. Neither population appears to meet the criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP 13).

With regard to the proposal to prevent any change in the current listing for 20 years for trade in raw or worked ivory, it is not possible to assess this against Resolution Conf. 9.24 (Rev. CoP 13), as it refers to future conditions that cannot presently be known. No similar restriction currently forms part of any annotation to the Appendices and there is no precedent under the Convention for such a moratorium. However, there is some precedent for recommending actions concerning the Appendices over more than one interval between

meetings of the Conference of the Parties, in Resolution Conf. 9.24 (Rev. CoP 13), Annex 4, Precautionary measures, which states: no species listed in Appendix I shall be removed from the Appendices unless it has been first transferred to Appendix II, with monitoring of any impact of trade on the species for at least two intervals between meetings of the Conference of the Parties. The period of time required for this precautionary process to unfold, however, is considerably less than the 20 years proposed here, and the process outlined in Resolution Conf. 9.24 (Rev. CoP 13) would allow for the species in question to be traded under permit in accordance with Article IV of the Convention.

The proposed annotation only concerns those elephant populations that are currently included in Appendix II. No such restriction would apply to those that are currently in Appendix I, or any that might be transferred from Appendix I to Appendix II in future.

Annex 3 of Resolution Conf. 9.24 (Rev. CoP 13) states that listing of species in more than one Appendix should be avoided in general. When split-listing does occur, this should generally be on the basis of national or continental populations, rather than subspecies. This is presently the case.

CoP 14 Prop. 8

Amendment of the annotation to the Bolivian population of Vicuña *Vicugna vicugna* to read as follows:

Population of Bolivia (listed in Appendix II):

For the exclusive purpose of allowing international trade in wool sheared from live Vicuñas, and in cloth and items made thereof, including luxury handicrafts and knitted articles.

The reverse side of the cloth must bear the logotype adopted by the range States of the species, which are signatories to the *Convenio para la Conservación y Manejo de la Vicuña*, and the selvages the words 'VICUÑA-BOLIVIA'. Other products must bear a label including the logotype and the designation 'VICUÑA-BOLIVIA-ARTESANÍA'.

All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly."

Proponent: Bolivia.

Summary: The Vicuña *Vicugna vicugna* is a wild camelid, prized for its fine quality wool. It is native to the high Andes of Argentina, Chile, Bolivia and Peru. The global Vicuña population decreased to a few thousand during the mid-1960s due to over-exploitation, leading to the establishment of the *Convenio para la Conservación y Manejo de la Vicuña* (The Vicuña Convention). The species was included in Appendix I in 1975. With improving management, numbers have increased, and several populations have subsequently been transferred to Appendix II. The Bolivian population is currently estimated to number over 60 000 animals and is believed to be increasing.

In 1997 the Bolivian populations in the Conservation Units of Mauri-Desguadero, Ulla Ulla and Lipez Chichas, which at that time comprised 70% of the national population, were transferred to Appendix II with an annotation to allow only trade in cloth (not fibre) made from live sheared Vicuña, but with a zero export quota. The zero quota was removed at CoP 11. At CoP 12 the remaining populations, until then still included in Appendix I, were transferred to Appendix II. The current annotation reads:

For the exclusive purpose of allowing international trade in: a) wool and products derived therefrom sheared from live animals of the populations of the Conservation Units of Mauri-Desaguadero, Ulla Ulla and Lipez-Chichas; and b) products made from wool sheared from live animals of the rest of the population of Bolivia. The reverse side of the cloth must bear the logotype adopted by the range States of the species, which are signatories to the *Convenio para la Conservación y Manejo de la Vicuña*, and the selvages the words 'VICUÑA-BOLIVIA'. Other products must bear a label including the logotype and the designation 'VICUÑA-BOLIVIA-ARTESANÍA'.

All other specimens shall be deemed to be specimens of species included in Appendix I and the trade in them shall be regulated accordingly.

The annotation therefore allows trade in *wool and products* derived from live-sheared animals of the

populations of the Conservation Units of Mauri-Desaguadero, Ulla Ulla and Lipez-Chichas, but limited to *products* made from fibre sheared from live animals of the rest of the population of Bolivia.

Bolivia wishes to create economic incentives for communities within the range of the Vicuña to engage in the conservation, management and sustainable use of the species. However, although the whole Bolivian population is currently listed in Appendix II and sale of fibre and/or products has been permitted under CITES since COP 12 and live-shearing has taken place, to date the planned auction of the fibre stockpile (currently 753 kg) held by the Bolivia Government has not taken place as the necessary legislation allowing this was not in place. Bolivia has recently legally established mechanisms for the trade in fibre and products from live-sheared Vicuña. However, under the current annotation, it would not be possible to export any of the stockpiled fibre that does not originate from the Conservation Units of Mauri-Desaguadero, Ulla Ulla and Lipez Chichas. Fibre from Vicuña outside these three conservation units would have to be processed before export. There is little wool-processing capacity in Bolivia therefore the requirement to process fibre potentially hinders the attainment of economic benefits by communities from parts of the Vicuña range outside those three conservation units.

Analysis: Three Bolivian populations of Vicuña have been in Appendix II since 1997. The remaining populations were transferred to Appendix II in 2002. Conditions regarding export of these populations differ. For the populations in Appendix II since 1997, export of fibre and cloth is allowed. For those in Appendix II since 2002, export of cloth only is allowed. This proposal is to harmonise the annotations so that export of fibre and cloth from all populations will be allowed.

The Bolivian population of the Vicuña does not meet the criteria for inclusion in Appendix I: it is not small, nor does it have a restricted range, nor is it declining. Bolivia states they have adequate monitoring systems and coordinated enforcement measures in place to satisfy the precautionary measures in Resolution Conf. 9.24 (Rev. CoP 13). The argument for community involvement and support of the National Programme for the Conservation of Vicuña has been based on the expectation of economic benefits flowing into communities. The proposed annotation would facilitate the trade of fibre from live-sheared Vicuña from the rest of the Bolivian population outside the initial three Conservation Units, and potentially increases the ability for economic benefits to be attained by these communities within the range of the Vicuña.

This proposal has the support of the *Vicuña Convention* to which all other Vicuña range States are signatories.

CoP 14 Prop. 9

Inclusion of Barbary Red Deer *Cervus elaphus barbarus* in Appendix I.

Proponent: Algeria.

Summary: The Barbary Red Deer is a subspecies of the Red Deer *Cervus elaphus*. Under most current classification systems for the Red Deer (which recognise up to 22 subspecies), the subspecies is confined as a wild population to Tunisia, Algeria and Morocco in Northern Africa. The Moroccan population was reintroduced from Tunisia in the 1990s. Recent genetic analysis, however, has indicated that the Red Deer populations in North Africa are virtually indistinguishable from those in Sardinia (Italy) and the reintroduced population in Corsica (France), generally ascribed to *C. elaphus corsicanus*. One recent assessment considers all these populations to belong to a separate species, which under rules of priority for nomenclature would be called *Cervus corsicanus*.

The north African populations occupy dense sub-humid evergreen montane scrub forests. The taxon was assessed as Lower risk/near threatened by IUCN in 1996, having previously been considered Vulnerable (pre-1994 criteria). The size of the population in Tunisia is not known for certain. According to one recent report it may number perhaps 2 000 and growing, due at least in part to conservation measures. However, another report, based on limited surveys in 2002 and 2003 concluded that the population was more likely to be 700-800, scattered in a number of different localities. There are few data for Algeria, but the population there may also be increasing. Poaching, forest fires, predation by feral dogs and infection from livestock diseases and parasites are all believed to affect the species. Hunting expeditions that affect other ungulates in Northern Africa, such as *Gazella dorcas* and *Gazella leptoceros* (see Proposals 11 & 12), probably do not affect *Cervus elaphus barbarus*, which is not found in areas where these expeditions generally hunt. The population of Red Deer in Sardinia was estimated in 2005 to number at least 5 000.

Cervus elaphus barbarus was included in Appendix III by Tunisia in 1976. The species *Cervus elaphus* is not included in the Appendices, although two other subspecies are: *C. elaphus bactrianus* (in Appendix II since

1975) and *C. e. hanglu* (in Appendix I since 1975). Very little trade in any of these taxa has been reported in the CITES Trade Database and it is unlikely that there is significant international trade in this subspecies. The proposal seeks to transfer the subspecies from Appendix III to Appendix I.

Analysis: The Barbary Red Deer in North Africa has a relatively limited range. The best available information indicates a population of no more than a few thousands (and possibly fewer) in generally small sub-populations. According to the guidelines in Annex 5 of Resolution Conf. 9.24 (Rev. CoP 13), the North African population of Barbary Red Deer might meet the biological criteria for inclusion in Appendix I. However, the population is reported to be increasing and the range expanding in the major part of its distribution. If recent taxonomic assessments are accepted, the taxon also occurs in Sardinia and as a reintroduced population in Corsica, in which case its overall population may number several thousands and would be unlikely to meet the biological criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP13). Although the taxon has been reported in trade, there is little evidence that it is affected by current levels of international trade or would be likely to be affected in the future.

Annex 3 of Resolution Conf. 9.24 (Rev. CoP13) states that split-listings that place some populations of a species in the Appendices, and the rest outside the Appendices, should normally not be permitted (although in the case of *Cervus elaphus* this situation already exists). It also notes that when split-listing does occur, this should generally be on the basis of national or regional populations, rather than subspecies and that taxonomic names below the species level should not be used in the Appendices unless the taxon in question is highly distinctive and the use of the name would not give rise to enforcement problems. In this case, distinguishing specimens in trade from other specimens of *Cervus elaphus* would almost certainly be problematic.

CoP 14 prop. 10

Inclusion of Cuvier's Gazelle *Gazella cuvieri* in Appendix I.

Proponent: Algeria.

Summary: *Gazella cuvieri*, Cuvier's Gazelle, is a medium-sized gazelle, occurring in the hills and low mountains of the Atlas and neighbouring ranges in Morocco, Algeria and Tunisia and in Western Sahara. It is one of a number of similar species of gazelle that occur widely in northern Africa and the drier parts of Asia.

Cuvier's Gazelle was assessed by IUCN as Endangered in 1996 on the basis that the total population numbered below 2 500 mature individuals and was declining. Since then, some sub-populations have reportedly stabilised, some are reported to be increasing and additional populations have also been discovered in Morocco; the overall population is now believed to be in the region of 3 000. The species still occurs through much of its historical range, but generally in small scattered populations. It has been affected by habitat loss and fragmentation through transformation of wooded zones into pastures and cropland. Additional effects on populations include poaching, forest fires and predation by dogs near inhabited areas. However, unlike *Gazella dorcas* and *Gazella leptoceros* (see Analyses to Proposals 11 and 12) this species does not seem to be affected by desert hunting expeditions as it occurs in hilly and mountainous areas where these hunts do not take place. There has been little recorded trade and although direct use reportedly affects the species it is unlikely that there is significant international trade in this species. The species is listed in Appendix I of CMS and was included in CITES Appendix III in 1976 by Tunisia along with three other species, *Gazella dorcas*, *Gazella leptoceros*, *Gazella gazella*. Apart from *Gazella dama*, which has been included in Appendix I since 1983, no other gazelle species is currently included in the Appendices.

This proposal seeks to include *Gazella cuvieri* in Appendix I.

Analysis: Available information indicates that *Gazella cuvieri* might meet the biological criteria for inclusion in Appendix I in Resolution Conf. 9.24 (Rev. CoP 13). The species still occurs widely, albeit in scattered populations, over an extensive area (40 000–50 000 km²) and would not therefore appear to have a restricted area of distribution. While populations have undoubtedly shown declines relative to historic levels, there is no evidence that such declines are ongoing. However, current population estimates indicate that the species does have a small population, as suggested by the guidelines in Annex 5 of Resolution Conf. 9.24 (Rev. CoP 13), and that sub-populations are generally small or very small. There is, though, general agreement that the population is stable or increasing, thanks in large part to improved conservation efforts. The species has been recorded in trade in small numbers, almost all as captive-bred specimens, but there is no evidence that international trade has a significant impact on wild populations.

The species resembles other gazelle species that are not included in the Appendices so enforcement of any listing might be problematic.

CoP 14 Prop. 11

Inclusion of Dorcas Gazelle *Gazella dorcas* in Appendix I.

Proponent: Algeria.

Summary: The Dorcas Gazelle *Gazella dorcas* is a small gazelle occurring in the arid and sub-arid zones of the Sahelo-Sahara region and in the Near East, with populations recorded in at least 19 countries. It is a widespread and adaptable species, with a relatively high reproductive rate – females may first breed at around nine months, giving birth to one, rarely two, young after a gestation period of around six months. The Dorcas Gazelle is one of a number of similar species of gazelle that occur widely in northern Africa and the drier parts of Asia.

Evidently once very abundant in much of its range, in the past half century populations have declined and the range contracted, particularly in the northern part of its distribution. Although habitat degradation may have some impact, direct exploitation is believed to be the primary factor affecting the species. In particular, motorised desert hunting expeditions, whose main target is the Houbara bustard *Chlamydotis undulata*, are reported to kill significant numbers. Declines in at least some range States, such as Egypt and Algeria, have apparently been very marked (although the population in Algeria may now be increasing). Apart from a recent estimate of 10 000–20 000 in Niger, there is little up-to-date numerical information on the status of populations. In the late 1990s, the population south of the Sahara was estimated as perhaps 35 000–45 000, with much smaller numbers surviving further north. As well as the Niger population, substantial populations are reported as remaining in parts of Chad, Ethiopia and Mali. *Gazella dorcas* was assessed as Vulnerable by IUCN in 2000, and is included in Appendix I of the Convention on Migratory Species (CMS). The species was included in CITES Appendix III in 1976 by Tunisia along with three other species, *Gazella cuvieri* (the subject of Proposal 10), *Gazella gazella* and *Gazella leptoceros* (the subject of Proposal 12). *Gazella dama* has been included in Appendix I since 1983. No other gazelle species is currently included in the CITES Appendices.

Reported trade since 1976 has been in the order of 2 200 live specimens, mainly exported from Sudan to Gulf States. Limited trade in trophies has also been recorded. It is possible that there is additional unreported trade associated with hunting expeditions.

The proponent seeks to include *Gazella dorcas* in Appendix I.

Analysis: The Dorcas Gazelle does not appear to meet the biological criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP 13). Its range is not restricted in extent. With recent estimates of 10 000–20 000 in Niger alone, and substantial numbers reported elsewhere, its overall population is not small. The species is believed to be declining but, based on the current IUCN Red List assessment, it seems likely that the rate of decline is below that suggested in the guidelines of Resolution Conf. 9.24 (Rev. CoP 13) as appropriate for inclusion in Appendix I. The species is in international trade, but this is not believed to be a major factor affecting the status of the species.

CoP 14 Prop. 12

Inclusion of Slender-horned Gazelle *Gazella leptoceros* in Appendix I.

Proponent: Algeria.

Summary: The Slender-horned Gazelle *Gazella leptoceros* is a medium-sized gazelle from northern Africa. It is one of a number of similar species of gazelle that occur widely in northern Africa and the drier parts of Asia. The species now appears to occur in two separate areas, one in the Western Desert of Lower Egypt and northeastern Libya, and the other in western and middle parts of the Sahara. The two populations have been placed in different subspecies, although the validity of these is in dispute, and some authorities believe that their separation may be a recent artefact of overhunting and other human pressure leading to range fragmentation. There are few recent population data, but the species is believed to have undergone historic

population declines and range contractions, and it appears to be rare throughout its range. An assessment of African antelopes in the late 1990s concluded that the global population of this species could be as low as a few hundred and was unlikely to exceed a few thousand. A survey in Tunisia in 2006 confirmed that the Slender-horned Gazelle was still present throughout the Tunisian part of the Great Oriental Erg from Djebil National Park to Senghar National Park, but densities were probably very low and the population in the country was thought likely to number only a few hundred individuals. A 2007 reconnaissance survey along the northern margin of the Erg Occidental in central Algeria provided confirmation of their presence in at least three separate locations in the eastern central and western zones of this very large area, indicating a large contemporary distribution in this habitat; no assessment of relative abundance was made. There is no information on current numbers in Libya or in countries on the southern side of the Sahara.

Direct exploitation is believed to be the primary threat to the species. In particular, motorised desert hunting expeditions, whose main target is the Houbara bustard *Chlamydotis undulata*, are reported to kill significant numbers of gazelles, including the Slender-horned Gazelle. The species may also have been affected by habitat degradation. *Gazella leptoceros* was assessed as Endangered by IUCN in 1996, having previously been assessed as Vulnerable, and is included in Appendix I of the Convention on Migratory Species (CMS). The species was included in CITES Appendix III in 1976 by Tunisia along with three other species, *Gazella cuvieri* (the subject of Proposal 10), *Gazella dorcas* (the subject of Proposal 11) and *Gazella gazella*. *Gazella dama* has been included in Appendix I since 1983. No other gazelle species is currently included in the Appendices.

Trade in *G. leptoceros* has been observed. Small numbers of captive-bred live specimens have been recorded in trade. Adult Slender-horned Gazelles were observed in the mid 1990s in Saudi Arabia and it has been reported that recent imports declared as Dorcas Gazelle have included *G. leptoceros*. It is possible that there may be some undeclared trade in trophies collected by desert hunting expeditions.

The proponent seeks to include *Gazella leptoceros* in Appendix I, although there is some ambiguity in intent: the proposal itself names the taxon as *Gazella leptoceros*, while the supporting statement refers under taxonomy and in the remainder of the text to the subspecies *G. l. loderi*. This analysis treats the taxon as a whole.

Analysis: There are few recent population data for the Slender-horned Gazelle. However, in the late 1990s the global population was considered unlikely to exceed a few thousand. It is known to have declined in abundance historically, and to be subject to hunting, and it is thought that the population is likely still to be declining. Given this and the scarcity of recent sightings over its extensive range, the species may meet the biological criteria for inclusion in Appendix I on the basis of a small and declining population, following the guidelines in Resolution Conf. 9.24 (Rev. CoP 13). The species is known to have been in international trade, although in recent years declared trade has been exclusively in captive-bred specimens. It is possible that there is some undeclared trade in trophy specimens. The species may therefore be affected by trade and therefore meet the trade criteria for inclusion in Appendix I.

The species resembles other gazelle species that are not included in the Appendices so that enforcement might be problematic.

CoP 14 Prop. 13

Transfer of the Black Caiman *Melanosuchus niger* population of Brazil from Appendix I to Appendix II.

Proponent: Brazil.

Summary: The Black Caiman *Melanosuchus niger* is widely distributed in the Amazon River Basin, with approximately 80% of its range in Brazil. It occupies a wide diversity of freshwater wetlands and is most abundant in white water rivers of the Basin. The Brazilian Black Caiman population was severely depleted because of overhunting from 1950 to 1970, but as a result of protection it has recovered substantially. In 1982 the Black Caiman was categorised as globally Endangered on the IUCN Red List, but after being re-assessed in 2000, it was listed as of Least Concern. It was included in the first Brazil Red List in 1982, but removed in 2003 based on recent data on densities confirming that it had increased. In 2006 data showed that the Black Caiman still occurs throughout its historic range in Brazil and is locally abundant. That the total wild population in Brazil is in the order of magnitude of millions of individuals (possibly 12–20 million) is supported by the information contained in the proposal and by an additional analysis of survey results provided subsequently. Potential threats include damming for hydroelectric energy, illegal hunting for meat,

which is often used for fish bait, and buffalo grazing in cleared areas that could threaten their prey. The significance of these threats is not known and the Black Caiman population evidently continues to increase. The species was included in Appendix I in 1975. In 1995 the population of Ecuador was transferred to Appendix II, subject to a zero annual quota until an annual export quota has been approved by the CITES Secretariat and the IUCN/SSC Crocodile Specialist Group. Since then the only export quotas from Ecuador have been for 30 in 1998 (not taken up) and for 15 live ranched specimens in 2003 (exported from Ecuador to Denmark).

Harvesting Black Caiman on Sustainable Use Reserves is proposed, following requirements of national laws and reserve management plans. Quotas for individual reserves will not exceed 10% of the observed non-hatchling population and will be subject to yearly evaluation of population monitoring indices. Initially, harvesting will take place in Mamirauá Sustainable Development Reserve (SDR) which has a large resident population Black Caiman (currently estimated at 900 000 non-hatchlings). Harvesting systems will concentrate on juvenile males so the impact on population dynamics will be minimal. Experimental harvests of the species were undertaken in Mamirauá SDR in 2004 and 2006 to evaluate the economic potential of sustained management, train local people and evaluate the logistics of the productive chain. It is believed that the existence of a controlled high-value market will increase revenue to local people by adding value for fresh meat and opening the market for skins, which are presently wasted. It is hoped that illegal hunting and trade will be eliminated, and that local people will develop the incentives to value natural systems more and conserve habitats. No export quota is proposed, nor are details provided in the supporting statement regarding procedures for the collection, marking (including compliance with Resolution Conf. 11.12), internal transport control and export control of specimens harvested under the proposed programme. This raises some concerns regarding the adequacy of safeguards against illegal harvest and uncontrolled export from Brazil and possible impacts on the species in adjacent range States where populations are not known to have recovered. However, Brazil has effectively demonstrated implementation of CITES Article IV as well as sufficient enforcement controls in connection with its management of another crocodylian, *Caiman yacare*, for many years.

The proponent seeks to transfer the population of Black Caiman *Melanosuchus niger* of Brazil from Appendix I to Appendix II of CITES, in accordance with Article II, paragraph 2 a) of the Convention and with Resolution Conf. 9.24 (Rev. CoP 13) Annex 4, paragraph A. 2 b).

Analysis: The Brazilian population of Black Caiman does not appear to meet the criteria for inclusion in Appendix I: the population is not small, nor does it have a restricted area of distribution, nor is it declining. The species is in demand for trade, and the proposed transfer from Appendix I to Appendix II is intended to allow for commercial export of skins. According to the supporting statement, the proposed harvest plans will be based on an adaptive management approach, with annual population monitoring used to establish harvest quotas. These are intended to be conservative, and not to exceed 10% of the observed non-hatchling population of the specified management area. It would appear therefore that management of the species will be in accordance with Article IV of the Convention. Brazil's successful *Caiman yacare* management scheme indicates that the country has the capacity to comply satisfactorily with CITES provisions regarding harvest and export of crocodylians.

If adopted, this proposal would result in the *M. niger* populations of Brazil and Ecuador being in Appendix II and those of the other six range States being in Appendix I (although Ecuador currently has a zero export quota). This could conceivably create enforcement problems although past problems of this nature with split-listed crocodylian populations have reportedly more or less halted since the crocodylian skin tagging system was introduced at CoP 8.

CoP 14 Prop. 14

Transfer of the Beaded Lizard subspecies *Heloderma horridum charlesbogerti* from Appendix II to Appendix I.

Proponent: Guatemala.

Summary: *Heloderma horridum charlesbogerti* is a subspecies of the Beaded Lizard, a large, venomous lizard that occurs in Mexico and Guatemala. *H. h. charlesbogerti* is endemic to the Motagua Valley in eastern Guatemala, where it is restricted to small, dispersed patches of forest in semi-arid areas. The species *Heloderma horridum* was categorised as Vulnerable in the IUCN Red List in 1996. The range of the

subspecies has been reduced to 24 000 ha and its wild population is currently estimated at between 170 and 250 individuals. It is regarded as threatened with extinction due to loss of its habitat, collection for local and foreign collectors, the effects of hurricanes, and persecution by local people who are afraid of it because of its poisonous nature. A National Conservation Strategy has been developed which will attempt to counteract the threats. The subspecies has apparently been traded, both nationally and internationally and, although the numbers are small, they are significant in relation to the total population. Collection and trade in this subspecies is illegal in Guatemala. There are four subspecies of *Heloderma horridum*, and *H. h. charlesbogerti* differs from the others in various details of morphology and colouration, making it relatively easy to distinguish live animals when adult, although juveniles are said to be difficult to tell apart. *H. suspectum*, the only other species in the genus, is very distinct. Captive breeding has so far been very unsuccessful, despite many attempts. *Heloderma* species have been included in Appendix II since 1975. The proposal seeks to transfer the population of the subspecies of *Heloderma horridum charlesbogerti* from Appendix II to Appendix I, in accordance with criteria A i), ii) and v), B i), ii), iii), and iv), C ii) of Resolution Conf. 9.24 (Rev. CoP 13) Annex 1.

Analysis: *Heloderma horridum charlesbogerti* appears to meet the biological criteria for listing in Appendix I. Its habitat has been severely reduced; it is restricted to dispersed patches of forest; the population is very small and localised and a population decline can be inferred from the difficulty in finding the species currently, compared with the 1980s. The subspecies has apparently been recorded in trade, although since 2000 only one specimen of *Heloderma horridum* has been recorded as exported from Guatemala, the subspecific identity of which is not recorded.

Resolution Conf. 9.24 (Rev. CoP 13) states that split-listing of species in the Appendices should be avoided if possible, and that when split-listing does occur, this should generally be on the basis of national or regional populations, rather than subspecies. It also states that taxonomic names below the species level should not be used in the Appendices unless the taxon in question is highly distinctive and the use of the name would not give rise to enforcement problems.

It appears that only adults of this subspecies are readily distinguishable from other subspecies. Identification of juveniles, which is the main stage that is traded, would be problematic.

CoP 14 Prop. 15

Inclusion of Porbeagle *Lamna nasus* in Appendix II with the following annotation

"The entry into effect of the inclusion of *Lamna nasus* in Appendix II of CITES will be delayed by 18 months to enable Parties to resolve the related technical and administrative issues, such as the possible designation of an additional Management Authority."

Proponent: Germany, on behalf of the European Community States, acting in the interest of the European Community.

Summary: The Porbeagle *Lamna nasus* is a large warm-blooded shark occurring in temperate waters of the North Atlantic and in a circumglobal band in the Southern Hemisphere (30–60° S). While it grows faster than many cold-blooded sharks, the Porbeagle has several life history characteristics that make it highly vulnerable to over-exploitation in fisheries. These include relatively slow growth, late maturation (8–13 years), long life span (26–45 years), large body size (up to 355 cm), small numbers of young (1–5 pups per litter) and long gestation leading to a low intrinsic rate of population increase (5–7% annually). Porbeagles are one of relatively few shark species directly exploited for their meat and there is a well documented history of Porbeagle fisheries that have over-exploited stocks, as well as declines in the amount of reported bycatch in other fisheries. Following the collapse of the Northeast Atlantic Porbeagle fishery in 1960 (with 85–99% declines in landings in 69 years), Norwegian fleets moved to the Northwest Atlantic where the fishery was only sustained for six years before also collapsing. Catch per unit effort of Porbeagle bycatch by pelagic longliners in the Southwest Pacific and Southwest Atlantic may also have declined by between 50% and 95% in 10–20 years. A few fisheries still target Porbeagle in the North Atlantic including 8–11 French vessels which catch 300–400 t per year, and Canadian inshore and offshore vessels which have recently landed only 139–229 t of the 250 t annual quota from the Northwest Atlantic (quota reduced to 185 t in 2006). Assessments of the Northwest Atlantic population indicate it remains at a low level but is relatively stable with a slight decline in females. Only very limited recovery of stocks has occurred despite catch restrictions.

Porbeagle meat is of high quality and high value and is known to be traded internationally, but patterns and

trends in international trade are largely unknown due to lack of species-level trade records. Porbeagle fins are of questionable value for the fin trade, but being large are traded internationally and sometimes as a by-product of the meat industry. A large proportion of Porbeagles caught in New Zealand waters are landed as fins and all fins exported for the fin trade. Porbeagle fisheries are managed in only a small portion of their global range, with catch quotas in Canada, USA and New Zealand. While the species is listed on various international conventions, management measures have yet to be introduced. The FAO Committee on Fisheries (COFI) recognised the need to improve management of shark fisheries with the adoption in 1999 of the International Plan of Action for the Conservation and Management of Sharks (IPOA – Sharks), endorsed by the FAO Council in 2000. However, fewer than 20% of the COFI Member States (of which there are over 100) have reported to FAO that they have implemented the IPOA through the drafting of a National Plan of Action (NPOA).

This species is proposed for inclusion in Appendix II under Resolution Conf. 9.24 (Rev. CoP13) Annex 2a criteria A and B because of marked historic and recent population declines based on stock assessments and landings in the North Atlantic. Other stocks have unknown status but are subjected to heavy fishing pressure with little current management in place.

Analysis: Porbeagles are inherently vulnerable to overexploitation owing to a suite of life history characteristics. They have a long history of being caught in unsustainable target and non-target fisheries, with much evidence (from both catch data and stock assessments) demonstrating the impact of fishing on wild populations in the North Atlantic. There is undoubtedly demand for high value Porbeagle meat and large fins, and the species is traded internationally. Because of the lack of species-specific data, the exact scale of this international trade is unknown, meaning that the relative importance of the trade in observed and predicted declines compared with other factors (chiefly bycatch and harvest for domestic use) is also unknown. It is therefore not possible to conclude with certainty that the species meets the criteria for inclusion in Appendix II. However at least one fishery appears to be driven largely by international demand and it seems likely that such demand is an important contributing factor in other fisheries. (North Atlantic populations at least already appear to meet the biological criteria for inclusion in Appendix I with several recorded marked historical extents of decline to 1–15% of the baseline as well as marked recent declines to 10% within 10 years – these being in accordance with the guidelines recommended for commercially exploited aquatic species).

The listing would require Parties to make non-detriment findings for specimens introduced from the sea.

CoP 14 Prop. 16

Inclusion of Spiny Dogfish *Squalus acanthias* in Appendix II with the following annotation

"The entry into effect of the inclusion of *Squalus acanthias* in Appendix II of CITES will be delayed by 18 months to enable Parties to resolve the related technical and administrative issues, such as the possible designation of an additional Management Authority."

Proponent: Germany, on behalf of the European Community Member States, acting in the interest of the European Community.

Summary: The Spiny Dogfish *Squalus acanthias* is a temperate water largely migratory shark of the shelf seas in the northern and southern hemispheres. Despite being naturally abundant, this species is exceptionally vulnerable to over-exploitation due to its long life span (50–100 years), long generation time (25–40 years), relatively large body size (83–200 cm), slow growth rates (2.7–3.3 mm per year for adults) and late age at first maturity (females 12–23 years, males 6–14 years). The Spiny Dogfish is one of the few species of sharks for which there are species-specific trade data. Strong, persistent demand for highly valued Spiny Dogfish meat, primarily from Europe, drives international trade and the targeting of fisheries around the world. There is also international trade in Spiny Dogfish fins and other products. As the Spiny Dogfish is migratory and usually strongly aggregated by age and sex, fishers can maintain catches despite stock depletion and target the most valuable part of the stock (large, pregnant females). Heavily exploited populations become male biased with reduced pup production. Many Spiny Dogfish populations have been severely depleted by fisheries and the species has been characterised by serial depletion around the globe. Spiny Dogfish have undergone marked historic declines in stock abundance and landings in the Northeast Atlantic and Northwest Pacific, and marked recent declines on the Iberian coast, in the Black Sea and Northwest Atlantic populations. Some declines have been severe and have also been very rapid: recruitment failure began after less than ten years targeted exploitation of the Northwest Atlantic population. The few

management measures in place for Spiny Dogfish largely lack either a scientific basis or full enforcement and encompass only a limited part of their full range. The FAO Committee on Fisheries (COFI) recognised the need to improve management of shark fisheries with the adoption in 1999 of the International Plan of Action for the Conservation and Management of Sharks (IPOA – Sharks), endorsed by the FAO Council in 2000. However, fewer than 20% of the COFI Member States (of which there are over 100) have reported to FAO that they have implemented the IPOA through the drafting of a National Plan of Action (NPOA). The Spiny Dogfish is listed globally as Vulnerable on the IUCN Red List, and regional populations have been assigned individual listings ranging from Vulnerable to Critically Endangered except for the South African and Australasian populations, which are considered to be of Least Concern.

The Spiny Dogfish is proposed for inclusion in Appendix II under Resolution Conf. 9.24 (Rev. CoP13) Annex 2a criteria A and B because of significant and continuing population declines driven by international trade. The proposed listing would include an annotation to delay entry into effect of the inclusion by 18 months to enable Parties to resolve the related technical and administrative issues.

Analysis: All but two populations of Spiny Dogfish have shown declines in catches and stock abundance driven by strong and persistent demand for high priced meat. Available evidence indicates that a high proportion of harvested Spiny Dogfish enters international trade. The species is also inherently vulnerable owing to a suite of life history characteristics. It seems likely that those Spiny Dogfish populations that remain relatively unexploited are likely to be the focus of expanding fishing pressure in the face of sequential declines in other populations and continuing demand for Spiny Dogfish meat for the international market, as has already been observed in New Zealand and Morocco. It would appear therefore that the Spiny Dogfish meets the criteria for inclusion in CITES Appendix II under Resolution Conf. 9.24 (Rev. CoP13) Annex 2a Criteria A and B.

CoP 14 Prop. 17

Inclusion of the Sawfish family Pristidae in Appendix I.

Proponent: Kenya and the United States of America.

Summary: The family Pristidae comprises two genera and approximately seven species of cartilaginous rays that are related to sharks and chimeras. Sawfish occur in subtropical and tropical freshwater, marine and coastal habitats to at least 80 m depth and exhibit species differences in their degree of tolerance to freshwater habitats. Their circumtropical distribution is thought to have once been continuous across areas of suitable habitat but is now severely fragmented with virtually all remaining populations believed to be seriously depleted. Two species (*Pristis pristis* and *P. perotteti*) have relatively limited distribution, being confined to coastal waters of the eastern and western Atlantic respectively; the remaining species are widespread, apparently occurring in a number of discrete populations. Sawfish have a suite of life history characteristics that make them extremely vulnerable to over-exploitation including slow growth rate, low fecundity, high age at first maturity and a low intrinsic rate of increase. Principal threats to sawfish are from fishing (formerly targeted in part, but now mostly incidental capture) and habitat degradation and loss. Few quantitative population trends can be determined for most species, however evidence from numerous surveys, field collections and landings data suggest that many sawfish populations have been extirpated or nearly extirpated from large areas of their former ranges, with very few sightings since the 1960s and 1970s. Population collapses have been recorded, for example, in Nicaragua and the Philippines, while US populations of *P. pectinata* are estimated to be currently 5% of historic levels. Sawfish have been demonstrated to be highly vulnerable to degradation and disruption of shallow coastal and freshwater habitats, through for example dam building blocking sea access for migration and pollution.

The toothed rostrum of the sawfishes makes them especially prone to accidental entanglement in fishing nets and possibly line gear. Sawfish are exploited for their rostra, fins and meat and are highly prized exhibits in public aquaria. Some past sawfish declines are known to have been largely driven by a lucrative market for meat and fins. Two fisheries are currently known to target sawfish for the international trade in fins and aquarium exhibits, while the majority of captures are incidental due to the very low population abundance. Sawfish fins are regarded as some of the highest quality in the shark fin trade but no studies have focused on identifying them in the trade. International trade in many sawfish products has been documented, for example in US Fish and Wildlife Service import trade data. However data are scarce and insufficient to precisely quantify the levels of international trade. A few species of sawfish are protected in some countries by national legislation, but there is no international management or monitoring of sawfish populations. All the sawfish species are currently listed as Critically Endangered on the IUCN Red List.

The proponent seeks to include all species of the family Pristidae in CITES Appendix I in accordance with Resolution Conf. 9.24 (Rev. CoP13), Annex 1, Criteria A.i); A.v); B.i); B.iii); B.iv) and Criterion C.ii) on the basis that the population is small, has undergone declines and is fragmented due to habitat loss and over-exploitation. Biological characteristics of the species make them particularly vulnerable.

Analysis: There is very little recent information on population sizes or extent of distribution of sawfish species. However, historical data and the extreme scarcity of recent sightings indicate declines in some stocks in some species that are likely to be of the magnitude suggested in the guidelines in Resolution Conf. 9.24 (Rev. CoP13) for inclusion in Appendix I, particularly given the long generation time of sawfishes. Sawfish fins are known to be valuable and to be traded internationally; there is also some trade in sawfish rostra and very limited trade in live specimens for aquaria. However, evidence of targeted fisheries for international trade is limited and the majority of captures are known to be incidental. Given taxonomic uncertainty regarding the number of sawfish species, the similarity of sawfishes to each other, and the difficulty of distinguishing between parts in trade of different species, enforcement would be problematic if some species were to be included in the Appendices and not others.

CoP 14 Prop. 18

Inclusion of the European Eel *Anguilla anguilla* in Appendix II.

Proponent: Germany, on behalf of the European Community Member States, acting in the interest of the European Community.

Summary: European Eels *Anguilla anguilla* are elongated snake-like bony fishes with smooth, slimy skin that are catadromous (spend most of their life in freshwater and descend to the sea to breed) and are generally considered to consist of a single panmictic (freely interbreeding) population. However, genetic studies have suggested some degree of non-random mating and restricted gene flow, and the debate continues over the structure of the stock. European Eels are long-lived (captive-bred eels have lived for 84 years) and females can attain 6 kg and over 100 cm in size while males typically reach about 45 cm. The species undergoes a life cycle encompassing a wide geographical scale and involving long-distance migrations. Spawning has never been observed, however the leaf-like larvae (known as leptocephali) are observed in the Sargasso Sea, east of Bermuda. These larvae drift on the Gulf Stream to the continental shelves of North West Africa and Western Europe after a journey of up to three years (but in some cases less than one year) after which time they metamorphose into eel-like, transparent juveniles called glass eels. Fisheries target these glass eels as they gather in estuaries and wait for the water temperature to reach 10–12°C before entering inland waters. Glass eels first metamorphose into pigmented elvers as they enter estuaries, then become pigmented yellow eels and subsequently spend a growth phase of between three and 25 years in rivers. They undergo a final metamorphosis into silver eels before embarking on a trans-Atlantic migration back to the Sargasso Sea where they spawn and die. Fisheries target silver eels as they leave inland and coastal waters and commence their long-distance journeys. All major life stages (glass eel, silver and yellow eels) are exploited in directed fisheries with an estimated annual catch of 30 000 t caught by approximately 25 000 fishermen.

The latest review of the status of the European Eel was conducted by the Joint European Inland Fisheries Advisory Commission (EIFAC) and International Council of the Exploration of the Sea (ICES) Working Group on Eels in 2006. Scientific consensus supported the view that the species has declined in most of its distribution and is outside safe biological limits. In the mid 1980s, the number of glass eels entering rivers in Western Europe (i.e. recruitment) decreased dramatically to 20% or less of levels observed not more than three generations previously; a figure that is widely agreed on. Recruitment time series from 19 rivers in 12 countries all showed downwards trends in the last 25 years (from both catch data and fishery-independent assessments). Data are lacking to show conclusively whether continental stocks of yellow and silver eels have also declined as much as recruitment and whether the two are linked. Data are also currently too fragmentary to be able to confidently determine the cause of the observed declines in recruitment and landings of European Eel. There is some evidence that the collapse in recruitment may have been caused by declining spawning stock in continental waters, but other data suggest that inland catch declines have been less pronounced and could have been driven by climatic and economic factors. In one study in which 54 catch and fishery-independent stock datasets were assessed, 37% showed significant declines, 7% showed significant increases and 56% showed no clear trends. In addition to overfishing, other anthropogenic impacts might have contributed to the sharp decline in European Eel recruitment, including freshwater and coastal habitat loss, pollution, climate change, blocking of inland migration routes by dams and mortality in

hydroelectric turbines. It is also suggested that natural fluctuations in ocean climate may have an important influence on European Eel recruitment.

In response to the widely recognised precarious state of the European Eel population, the European Community has proposed a recovery plan with a target of escapement to sea of at least 40% of silver eels relative to potential escapement under unfished, unpolluted and unobstructed conditions. The aim is to achieve this goal via the establishment of River Basin District-based eel management plans that are due for submission at the end of 2007. Given the many uncertainties in eel biology and management, the continuing precautionary advice of ICES is that stocks should be managed to allow 50% of the potential maximum pristine spawner escapement. There remains lack of clarity regarding the underlying reference status of silver eel biomass.

The meat of European Eels is highly valued in Europe and parts of East Asia, with glass, yellow and silver eels favoured in different regions. International trade of European Eel is high and from Europe consists mainly of live glass eels exported to Asia for rearing in aquaculture. Several other eel species are also traded internationally, mainly fresh, frozen and smoked. Between 1995 and 2005, an estimated half a billion live European glass eels were exported from the EU on average each year to Asia. At the current time, captive breeding of European Eels is not possible and were it to become so, it would take some time for it to become apparent as to whether such technology would transform international markets in glass eels.

Analysis: Available data, supported by scientific consensus from the ICES/EIFAC Working Group, show marked and widespread declines in glass eel recruitment to less than 20% of levels observed up to three generations previously and therefore the taxon may already meet the biological criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP13). These declines are not disputed but trends in catches of silver and yellow eels and their relationship to recruitment and stock size remain much less clear, because the datasets that are available are fragmentary. Nonetheless, significant declines in older stages have been observed in 20 out of 54 available fishery and stock assessment datasets. Factors that are likely to contribute to the changes in European Eel stocks and recruitment include fisheries (for local use and international trade), habitat degradation, disruption of migratory routes, pollution and natural climate fluctuations as well as human-induced climate change; the relative contribution of each of these remains unresolved. However, there is significant international trade due to heavy demand for European glass eels for export to Asia for captive rearing. While total exports have declined in recent years, high prices are likely to maintain incentives to catch this species for export. It seems that exploitation for trade may be a significant factor in current eel declines, possibly exacerbated by changing oceanic climatic conditions. The European Eel may therefore meet the criteria for inclusion in Appendix II.

In view of the presence of other eel species in trade, effective enforcement would require the development of adequate identification methods for all parts that featured prominently in trade.

CoP 14 Prop. 19

Inclusion of the Banggai Cardinalfish *Pterapogon kauderni* in Appendix II.

Proponent: The United States of America.

Summary: The Banggai Cardinalfish *Pterapogon kauderni* is a small coral reef fish endemic to a restricted region of Indonesia. It has been harvested substantially for the international ornamental aquarium trade since 1995 and possibly in smaller numbers before then. Its range is restricted to 27 Indonesian islands in the Banggai Archipelago and to Luwuk harbour in central Sulawesi. The total extent of natural occurrence of the species is around 5 500 km², which is extended slightly by artificial introductions to nearby areas. The total extent of suitable habitat is estimated to be only 34 km². The Banggai Cardinalfish is a sedentary fish living in small stable groups that remain closely associated with various living benthic substrates including sea urchins, sea anemones, branching corals and mangrove roots. Despite its small size, short life span and early age at first maturity, the Banggai Cardinalfish nonetheless has a relatively low fecundity due to limited brood size and prolonged male mouth brooding. It is also vulnerable to overexploitation due to its limited dispersal abilities (it has no pelagic larval stage) and consequently has the highest degree of population subdivision ever documented for a marine fish: populations occurring on reefs within the same island are genetically differentiated from each other.

There are an estimated 2.4 million individual Banggai Cardinalfish in the wild based on data from 2004. Since the early 1990s, exports of this species appear to have increased. Recent figures indicate an annual

export of some 400 000 to 480 000. Data for the period 2001–2004 suggested annual exports of around 700 000–900 000 fish, which were estimated by extrapolating shorter-term export figures. However, these figures may be overestimates if there is substantial inter-annual variation in exports (there are currently no data to determine this). Export figures may substantially underestimate the number of fishes collected if, as is suggested by various sources, there is a high level of post-capture mortality. There is some anecdotal information suggesting that the frequency of collection by traders and the number of traders visiting individual villages in the region have been recently declining, but whether this reflects dwindling abundance of Banggai Cardinalfish or other factors remains unclear. Baseline population information is not available to indicate whether the status of the species as a whole has changed since the main export trade began in 1995. Falling prices per fish suggest that there remain enough accessible stocks to satisfy current demand. However, several spatial and temporal studies have demonstrated the severe localised impact of harvesting Banggai Cardinalfish for the aquarium trade; observations indicate harvesting reduces the size of sub-populations and reduces the number of fish per group, a factor that is likely to lead to further declines and inhibit population recovery. All observed declines of individual sub-populations are recent and have been as high as 100% over three years. The extremely limited capacity for this species to recolonise areas that have been depleted by harvesting for the trade has also been demonstrated. Protection of sub-populations from fishing pressure has been associated in some cases with increased population densities. There has been substantial development of local conservation strategies for the Banggai Cardinalfish in recent years with considerable involvement of local stakeholders. Efforts are being focussed on the development of four marine protected areas (which still await implementation), increasing capacity for “*in-situ*” grow-out of juvenile fish and improving husbandry techniques to minimise post-capture mortality. There is also some evidence that a sustainable system of rotational harvest could be effective in preventing over-harvesting of Banggai Cardinalfish. Further investigations are required to determine whether “*in-situ*” breeding and rotational harvesting can be considered as sustainable strategies.

This species is proposed for inclusion in Appendix II under Resolution Conf. 9.24 (Rev. CoP13) Annex 2a criterion B because of marked recent declines in populations driven by harvesting for the international aquarium trade and the inherent vulnerability of this species to overexploitation.

Analysis: The Banggai Cardinalfish is a localised species that is harvested intensively for the international aquarium trade. While the exact levels of recent exports are not known and the most recent population estimates are from 2004, there is little doubt that a significant proportion of the total population of this species is exported from Indonesia each year. Higher levels of fishing pressure are associated with both marked recent declines in localised population size and a reduction in individual group size. The limited geographic range, small-scale isolation of sub-populations, low fecundity, and extremely limited dispersal mean this species is inherently vulnerable to overexploitation. It thus seems likely that the species meets the criteria for inclusion in Appendix II as set out in Annex 2a of Resolution Conf. 9.24 (Rev. CoP13).

CoP 14 Prop. 20

Inclusion of the spiny lobsters *Panulirus argus* and *P. laeviscauda* from Brazil in Appendix II.

Proponent: Brazil.

Summary: The spiny lobsters *Panulirus argus* and *P. laeviscauda* are distributed along the eastern Atlantic coast from the Bermudas and the USA’s east coast to Rio de Janeiro (Brazil), including the whole of the Gulf of Mexico and the Caribbean Sea. *P. argus* is the most abundant of the two species. There is wide variation in recruitment from year to year, believed to be related to environmental factors such as El Niño/Southern Oscillation events that are typically associated with years of poor production.

The spiny lobster fishery in Brazil has been operating for around 50 years and in recent decades a high proportion of the catch has been exported, mainly to the USA, and also to Japan and France. There is also a significant domestic market, often for lobsters below the minimum size. Despite regulations aimed to ensure sustainable fishing being in place for over 40 years, a marked decrease in population abundance has been identified, starting in 1993. The catch per unit effort declined by around ten times for *P. argus* from 0.936 kg/trap-day in 1965 to 0.097 kg/trap-day in 1997 and more than ten times for *P. laeviscauda* from 0.410 kg/trap-day in 1976 to 0.019 kg/trap-day in 1997. A large increase in the number of boats, chiefly sailboats and smaller motorised craft, many of which were unlicensed and typically used non-selective methods, has resulted in a considerable shift of fishing intensity from deeper to shallower waters and a shift to higher exploitation of immature spiny lobsters. Greatly increased fishing effort has maintained production figures. In

2000, the Brazilian Technical Working Group on Lobsters estimated that the fishing effort was 112 million trap-days a year, 82 million trap-days above the number estimated to generate maximum sustainable yield levels. Forty nine million trap-days were generated by that part of the fleet that had no fishing permit. A Management Usage Sustainability Plan for both species in Brazil aims to promote the recovery and maintenance of sustainable lobster usage. Considering that spiny lobster fishing is largely for the foreign market production, it is believed by community representatives, fishing companies, and government and civil society representatives that international cooperation is necessary in order to ensure sustainable exploitation.

The proponent seeks to include the Brazilian populations of *Panulirus argus* and *P. laevicauda* in Appendix II of CITES, in accordance with Article II, paragraph 2 a) of the Convention and with Resolution Conf. 9.24 (Rev. CoP 13) Annex 2a, paragraph B.

Analysis: Available evidence (based mainly on production figures and catch per unit effort estimates) indicates that the Brazilian populations of *P. argus* and *P. laevicauda* have substantially decreased since the beginning of the fishery, 50 years ago. Catch effort has substantially increased over that period and fishing is believed to be a major cause of the decline. A large proportion of the catch in recent decades has been for export and spiny lobsters below the allowed size are reported to be frequently exported with potential impacts on recruitment. It is possible therefore that these populations meet the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP 13).

Non-Brazilian populations of *P. argus* and *P. laevicauda* are excluded from the proposal. These populations are also exploited and feature in international trade. Resolution Conf. 9.24 (Rev. CoP 13) states that split-listings that place some populations of a species in the Appendices and the rest outside the Appendices, should normally not be permitted. Distinguishing spiny lobsters in trade that originate in Brazil from those originating elsewhere will be problematic and hence enforcement is likely to prove challenging.

CoP 14 Prop. 21

Inclusion of *Corallium* spp. in Appendix II.

Proponent: The United States of America.

Summary: *Corallium* spp. are a group of about 31 species of octocorals that occur throughout the world. Seven species included in the proposal under *Corallium* have now been reassigned to a new genus, *Paracorallium*. They are benthic suspension feeders, occurring at depths ranging from 7 to 1 500 m. They are part of a group, known as precious corals, that is commercially exploited. The dominant colour of the various species ranges from white, through various shades of pink and orange to deep red and the products are used extensively in jewellery and art objects. Many species have populations that are too small or scattered to be useful for commercial fisheries. The species that are used commercially include *Corallium rubrum* in the Mediterranean and north-east Atlantic, and several species in the north-west Pacific. Many species, especially those in deeper waters, are slow-growing and long-lived and particularly vulnerable to over-exploitation. *C. rubrum*, which occupies depths from 7 to 300 m, reaches maturity relatively quickly and has sustained extensive exploitation in several areas of the western Mediterranean for thousands of years; however, some populations have shown a dramatic decrease in their size, age and reproductive output in recent years. Genetic studies of *C. rubrum* and some Pacific species have demonstrated significant isolation between some populations and considerable heterozygote deficiencies in some species but not others.

Trade data show the most important producers of *C. rubrum* from 1967 to 2004 have been Italy, Spain and Tunisia, with smaller quantities from France, Morocco, Algeria, Greece, Croatia and Albania. Dredging the seabed in the past to collect *C. rubrum* and other species partly damaged large areas of habitat but these crude methods have reportedly largely been replaced by more selective, less damaging ones. The commercial species in the Pacific occur mainly in Japan, Taiwan (Province of China), the USA and seamounts in international waters; based on trade data the most important species are *C. secundum*, *Corallium* sp. nov., *C. elatius*, and *Paracorallium japonicum*, with small quantities of *C. konojoi* and *C. lauuense*. They have been subject to rapid exploitation following discovery of commercially viable beds, leading to exhaustion of the resource. After harvesting has been discontinued the populations have shown signs of recovery but, even after a number of years, have not fully recovered. Much of the trade is in the form of processed beads, traditionally processed and exported by Italy but more recently several Asian countries have been involved. The United States is the main importer of *Corallium* products, involving millions of unworked and worked items. Illegal harvesting was a problem in U.S. territorial waters in the past and has

been reported with increasing frequency in Spanish waters. The main reported threat to *Corallium* is over-harvesting but secondary human impacts include pollution, sedimentation in the Mediterranean and incidental take and habitat degradation associated with longline fishing and bottom trawling in the Pacific. Rise in sea temperature has been identified as a potential threat in the Mediterranean Sea.

Harvesting of *C. rubrum* is regulated in most countries and the Pacific species are regulated in the Hawaiian Islands and other areas under U.S. jurisdiction, but it is not known whether there are controls on harvesting in Japan, Taiwan (Province of China) and other producer countries. *Corallium* is not managed by any existing regional fisheries management organisations. There are currently no captive breeding programmes for *Corallium*, although artificial substrates have been successfully used to stimulate recolonisation.

Analysis: Coral derived from *Corallium* species is a valuable commodity that is traded in large amounts. Populations of various *Corallium* species, chiefly in the Mediterranean, north-east Atlantic and north-west Pacific, have been exploited for their coral, much of it apparently destined for international trade. This exploitation has often been intensive and, in recent years, some populations have shown very marked decreases in size, age and reproductive output. There remain, however, significant uncertainties regarding the impact of harvest for international trade on *Corallium* species. These uncertainties concern, *inter alia*: the proportion of each species that remains inaccessible to harvest and how changing technologies may in future alter that proportion; the proportion of accessible populations that is not harvested (because it is not economic to do so or because of enforced controls on harvest); rates of recovery of harvested populations and the degree to which species can recolonise areas; the age of reproduction of colonies relative to the age at which they are harvested; the impact of other factors, such as sedimentation, pollution and incidental take, on *Corallium* populations. Because of these gaps in knowledge it is not possible to say with certainty whether or not any *Corallium* species meets the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP 13).

Species of *Corallium* in trade resemble each other, and inclusion of some but not all species in the Appendices would create enforcement problems. Because *Corallium* is harvested from seamounts in international waters, implementation of any listing would require Parties to make non-detriment findings for introductions from the sea.

CoP 14 Prop. 22

Deletion of Arizona Agave *Agave arizonica* from Appendix I.

Proponent: The United States of America.

NB For further discussion on the place of hybrids under the Convention, see Background to analysis of Proposals 34–37

Summary: *Agave arizonica* has been listed in Appendix I since 1987. It is a rare, slow-growing succulent, endemic to the remote mountains of central Arizona, where it is restricted to four counties. The known population numbers fewer than 100 individuals. It has been described as one of the most beautiful agaves in Arizona, and as such has been in demand as an ornamental plant.

First described in 1970, *Agave arizonica* is now considered to be a naturally occurring first generation hybrid between *Agave toumeyana* spp. *bella* and *A. chrysantha*. It is unknown whether the plant will maintain a separate genetic identity. It has continued to exist in relatively stable populations for over 30 years but has been de-listed from the US Endangered Species Act (ESA) as a non-discrete taxonomic entity that does not meet the definition of a species under the Act, and thus no longer qualifies for protection under it.

The only records of *Agave arizonica* in the CITES Trade Database are of just under 50 exported from the USA in 1987, of which 40 went to the United Kingdom and the remainder to Austria, Canada, France and Germany. All were reported as artificially propagated. The UK Royal Horticultural Society's Horticultural Database indicates that *Agave arizonica* was last offered for sale in UK nurseries in 2000; it is currently offered for sale on one Spanish website.

The proponent seeks to delete *A. arizonica* from Appendix I, on the basis that it is no longer considered a species under the terms of the national legislation within the range State and therefore precautionary measures set out in Resolution Conf. 9.24 (Rev. CoP 13) Annex 4 do not apply – the most pertinent of these being: No species listed in Appendix I shall be removed from the Appendices unless it has been first transferred to Appendix II, with monitoring of any impact of trade on the species for at least two intervals between meetings of the Conference of the Parties (para A1).

Analysis: The proposed deletion of *Agave arizonica* from Appendix I entails agreeing that it is not an entity that has any standing under the Convention (otherwise, Resolution Conf. 9.24 (Rev. CoP 13 would apply). However, Resolution Conf. 11.11 (Rev. CoP 13), concerning regulation of trade in plants, states:

“hybrids shall be subject to the provisions of the Convention even though not specifically included in the Appendices if one or both of their parents are of taxa included in the Appendices, unless the hybrids are excluded from CITES controls by a specific annotation in Appendix II or III.”

In this the Parties have implicitly accepted that hybrids are entities equivalent to "species" as treated under the Convention (if they were not, they could not be subject to the provisions of the Convention, nor would they need a specific annotation to be excluded). In this instance, neither presumed parent of *Agave arizonica* is included in the Appendices but *Agave arizonica* itself is. This is a special case and the Parties must decide whether the principle implicit in Resolution Conf. 11.11 (Rev. CoP 13) applies or not. If it does apply, then *Agave arizonica* should be treated in the same way as any other taxon included in Appendix I, that is assessed under the criteria in Resolution Conf. 9.24 (Rev. CoP 13) and, if transferred to Appendix II, subject to the precautionary measures in Annex 4 of that resolution.

'*Agave arizonica*' appears to meet the biological criteria for inclusion in Appendix I by virtue of its extremely small and fragmented wild population. Although no recent trade has been reported, it has been in international trade and is actually or potentially in demand as an ornamental. However, wild individuals of *Agave arizonica* are reportedly secure from collection because of their inaccessibility and it appears unlikely that collection for international trade would pose a significant threat were it to be transferred to Appendix II.

CoP 14 Prop. 23

Transfer of Dehesa Bear-grass *Nolina interrata* from Appendix I to Appendix II, including all parts and derivatives.

Proponent: United States of America.

Summary: Commonly known as Dehesa or San Diego Bear-grass, *Nolina interrata* is a large succulent with an underground stem that forms a woody caudex and produces many rosettes of long, flat leaves. It is one of 30 or so members of the genus *Nolina*. The species is known from nine populations in a 15.5 km² area in San Diego California, USA and from three disjunct populations in northern Baja California, Mexico. There are thought to be a total of 9 000 plants in the nine US populations. Each Mexican population is believed to number around 25 plants, but precise numbers are unknown.

The species is fire-dependent, flowering profusely after wildfires. It is believed that alterations to natural fire periodicity or prevention of prescribed burning may adversely impact its reproductive success, although further studies are needed. Habitat loss is no longer considered a threat to the US populations because all significant populations are located on protected lands. Similar information is not available for Mexican populations. In 1998 it was reported that one of the Mexican populations could be eliminated due to major road construction although its subsequent fate is not known.

The species was included in Appendix I of CITES in 1983. International trade appears to be at a very low level. The only records in the CITES trade database between 1990 and 2005 are the import in 2002 by Slovenia of 12 artificially propagated specimens from the Netherlands. There are no reports of any illegal trade.

The United States proposes the transfer of *N. interrata* from Appendix I to Appendix II in accordance with the precautionary measures in Resolution Conf. 9.24 (Rev. CoP13), particularly Paragraph 2a of Annex 4 (the species is not in demand for international trade, nor is its transfer to Appendix II likely to stimulate trade in, or cause enforcement problems for, any other species included in Appendix I).

Analysis: To be transferred to Appendix II, *Nolina interrata* should no longer meet the criteria for inclusion in Appendix I set out in Resolution Conf. 9.24 (Rev. CoP13). Available evidence indicates that it may no longer meet these criteria. Although it has a relatively small population, this is larger than that suggested in the guidelines in Annex 5 of Resolution Conf. 9.24 (Rev. CoP 13) and is not known to be declining. Its area of distribution is restricted but most populations are reportedly well protected, although the species may remain vulnerable to changing fire regimes. There is no indication of a recent marked decline in numbers. There is evidence of demand for horticulture within one of the range States and the species has featured in international trade. However, the only trade recorded between 1990 and 2005 was in a small number of artificially propagated specimens between non-range States (all in 2002) and no illegal trade has been

recorded. There is little evidence for any significant demand for the species outside the range States and it seems unlikely that transferring the species to Appendix II will stimulate collection of plants from the wild, although some concerns have been raised regarding the possibility of seed collection for international trade. The species does not resemble any other Appendix-I listed species and its transfer would not have any impact on any such species.

CoP 14 Prop. 24

Deletion of *Pereskia* species and *Quiabentia* species from Appendix II.

Proponent: Argentina.

Summary: *Pereskia* and *Quiabentia* are two genera of cacti. *Pereskia* (along with the genus *Miahuenia*) belongs to the subfamily Pereskioideae and *Quiabentia* belongs to the subfamily Opuntioideae. They, along with the genus *Pereskiaopsis* (the subject of proposal 25) are distinctive amongst cacti in bearing persistent, recognisable, relatively large leaves for at least part of their growth cycle (other members of the sub-family Opuntioideae bear rudimentary leaves, often only near the growing tips of the stems). The species range in growth form from shrubs to small trees and, in the case of *P. aculeata*, a climbing vine. Currently some 17 members of the genus *Pereskia* and two members of the genus *Quiabentia* are recognised. The former genus is widespread in Central and South America and the West Indies. *Quiabentia* species occur in the southern part of South America in Argentina, Bolivia, Brazil and Paraguay. One species of *Pereskia* (*P. aculeata*) grows wild in the USA, notably in Florida, but is unlikely to be native. This species is established in the wild outside the Americas and is considered an invasive weed.

Both genera have been included in Appendix II since 1975 under the general listing of the family Cactaceae. The genera were the subject of proposals submitted by Switzerland for consideration at CoP12, one to exclude the entire subfamily Opuntioideae and one to exclude the subfamily Pereskioideae and the genera *Pereskiaopsis* and *Quiabentia* (that is all the 'leafy' cacti) from the appendices. Both proposals were withdrawn. Subsequently the genera have been included in the periodic review of the Appendices conducted by the Plants Committee. Argentina, a range State for both genera, submitted preliminary information on them to the Plants Committee in 2006.

These plants are subject to a variety of local uses and some are grown as ornamentals both within and outside range States. Those forms that are widely in cultivation are very easy to propagate. There is little demand for other species amongst specialist collectors. Very little trade in wild-collected plants of any of the species has been recorded in the CITES Trade Database during 1995–2005.

The proposal aims to simplify implementation of the Convention with regards to cacti by removing these genera from Appendix II on the grounds that there is insignificant international trade in wild-collected plants of these taxa, that such trade as exists is neither unsustainable nor poses a threat to the species concerned, and that these taxa can easily be distinguished from other cacti and particularly from all species in Appendix I.

Analysis: No species of *Pereskia* or *Quiabentia* is known to meet the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP13) Annex 2 a – in no case is regulation of international trade known to be necessary to prevent any species becoming eligible for inclusion in Appendix I, or to prevent harvest from the wild reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

It appears that, in general, these cacti, when in leaf, are easily distinguishable from other cacti. When in a leafless state *Quiabentia* species could be confused with some other cacti in the subfamily Opuntioideae (chiefly because of the presence of glochids, distinctive barbed spines in clusters found in the group); however, they could not be confused with any cactus included in Appendix I, nor with any Appendix-II species known to be traded in any number. *Pereskia*, in a leafless state, is unlikely to be confused with any other cactus and is unlikely to be easily recognised as a cactus at all, nor does it resemble any other plant included in the Appendices. It therefore appears that no species in either genus meets the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP13) Annex 2b.

Deletion of *Pereskia* species from Appendix II.

Proponent: Mexico.

Summary: *Pereskia* is a genus of cactus in the subfamily Opuntioideae (the prickly pears and their relatives), comprising six or seven currently recognised species, all except one occurring only in Mexico. The exception, *P. kellermanii*, is found in Mexico and El Salvador. *Pereskia* have relatively thin, often woody, branching stems and range from sub-shrubs around 0.5 m high to small trees up to 4 m high. In their mature state they do not exhibit conspicuous succulence. They are also distinctive amongst cacti in bearing recognisable, relatively large leaves for at least part of their growth cycle, a characteristic shared by plants in the genera *Pereskia* and *Quiabentia*, the subjects of Proposal 24 (other members of the sub-family Opuntioideae bear rudimentary leaves, often only near the growing tips of the stems). The genus has been included in Appendix II since 1975 under the general listing of the family Cactaceae.

The genus was the subject of two proposals submitted by Switzerland for consideration at CoP12, one to exclude the entire subfamily Opuntioideae and one to exclude the subfamily Pereskioideae and the genera *Pereskia* and *Quiabentia* (that is all the 'leafy' cacti) from the appendices. Both proposals were withdrawn. Subsequently the genus has been included in the periodic review of the Appendices conducted by the Plants Committee. Mexico, the major range State for the genus, has undertaken a review of the status and trade in the genus which was submitted to the Plants Committee in 2006 and which forms the basis of the current proposal. The report stated that none of the species was considered threatened with extinction in Mexico, with little local use, other than harvest and consumption of fruits of some species.

Although all species are believed to be in cultivation there is little collector interest in the genus and no recorded demand for wild-collected plants. All species can apparently be easily propagated by seed or cuttings. One taxon, usually known as *Pereskia spathulata* and generally considered to be of horticultural origin but sometimes considered a synonym of *P. diguetii*, is widely used as a rootstock for grafting other cacti. It is reportedly readily propagated from cuttings. Recent reported international trade in the genus under CITES is negligible, with just over 100 specimens reported in trade in the period 1995–2005, none from a range State and all but 10 (declared as *Pereskia* spp.) declared as *P. spathulata* or *P. diguetii*.

Analysis: No species of *Pereskia* is known to meet the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP13) Annex 2a – in no case is regulation of international trade known to be necessary to prevent any species becoming eligible for inclusion in Appendix I, or to prevent harvest from the wild reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

Although it is conceivable that some *Pereskia* in a leafless state could be confused with some other cacti in the subfamily Opuntioideae (chiefly because of the presence of glochids, distinctive barbed spines in clusters found in the group), they could not be confused with any cactus included in Appendix I, nor with any Appendix-II species known to be traded in any number. The fact that recorded international trade in the genus is negligible also means that it is unlikely that removing it from the Appendices will cause enforcement problems for species that remain in the appendices. It therefore appears that no species in the genus meets the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP13) Annex 2b.

Merging and amendment of annotations #1, #4 and #8 to read:

"Designates all parts and derivatives, except:

- a) seeds, spores and pollen (including pollinia), except seeds of Mexican Cactaceae spp. originating in Mexico;
- b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
- c) cut flowers and cut leaves (excluding phylloclades and other stem parts, and pseudobulbs) of artificially propagated plants;

d) fruits and parts and derivatives thereof of naturalized or artificially propagated plants of the genera *Vanilla* (Orchidaceae), *Opuntia* subgenus *Opuntia*, *Hylocereus* and *Selenicereus* (Cactaceae);

e) separate stem joints (pads), stem sections and flowers and parts and derivatives thereof of naturalized or artificially propagated plants of the genera *Opuntia* subgenus *Opuntia*, and *Selenicereus* (Cactaceae);

f) finished products that are packaged and ready for retail trade (excluding whole or grafted specimens, seeds, bulbs and other propagules) of *Aloe* spp., *Aquilaria malaccensis*, Cactaceae spp., *Cibotium barometz*, *Cistanche deserticola*, *Cyclamen* spp., *Dionaea muscipula*, *Euphorbia* spp., *Galanthus* spp., Orchidaceae spp. and *Prunus africana*; and

g) non-living herbarium specimens for non-commercial purposes."

Proponent: Switzerland.

Summary: For plant species in Appendix II, under the terms of the Convention only those parts and derivatives that are specified by annotations to the Appendices are regulated under CITES. A number of different annotations now apply to different plants in Appendix II. The annotations that currently stand are a result of successive modifications to the Appendices and some plants, particularly in higher taxon listings such as that for Orchidaceae, are subject to more than one annotation. It has been recognised for some time that there is some inconsistency in the use of these annotations, that interpreting some of them may be difficult, that some may give rise to enforcement problems, and that some may cover parts and derivatives that need not be regulated under CITES. A review has taken place under the direction of the Plants Committee, specifically dealing with annotations for medicinal plants, to try to solve some of these problems. The review has resulted in Proposal 27 (qv.), which proposes various amendments to current annotations #1, #2, #3, #7, #8 and #10.

This proposal deals with current annotations #1, #4 and #8. Annotation #1 applies to a range of plant taxa, annotation #4 to the family Cactaceae and annotation #8 to the family Orchidaceae. The proposal therefore overlaps with Proposal 27 in the case of annotations #1 and #8.

#1 is currently: Designates all parts and derivatives, except:

- a) seeds, spores and pollen (including pollinia);
- b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers; and
- c) cut flowers of artificially propagated plants;

#4 is currently: Designates all parts and derivatives, except:

- a) seeds, except those from Mexican cacti originating in Mexico, and pollen;
- b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
- c) cut flowers of artificially propagated plants;
- d) fruits and parts and derivatives thereof of naturalized or artificially propagated plants; and
- e) separate stem joints (pads) and parts and derivatives thereof of naturalized or artificially propagated plants of the genus *Opuntia* subgenus *Opuntia*;

#8 is currently: Designates all parts and derivatives, except

- a) seeds and pollen (including pollinia);
- b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
- c) cut flowers of artificially propagated plants; and
- d) fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*;

Much of the proposal entails a reconciliation of existing annotations to avoid duplication of wording in the Appendices but some new exemptions are also proposed. These are:

1. Cut leaves of all artificially propagated taxa currently covered by annotations #1, #4 and #8, excluding phylloclades and other stem parts, and pseudobulbs.

2. Fruits and parts and derivatives thereof of naturalized or artificially propagated plants of *Hylocereus* spp. and *Selenicereus* spp. (Cactaceae) (currently covered by annotation #4).
3. Separate stem joints, stem sections and flowers and parts and derivatives thereof of naturalized and artificially propagated plants of the genus *Selenicereus* (Cactaceae) (currently covered by annotation #4).
4. Finished products that are packaged and ready for retail trade (excluding whole or grafted specimens, seeds, bulbs and other propagules) of: *Aloe* spp., *Aquilaria malaccensis*, Cactaceae, *Cibotium barometz*, *Cistanche deserticola*, *Cyclamen* spp., *Dionaea muscipula*, *Euphorbia* spp., *Galanthus* spp., Orchidaceae and *Prunus africana* (all currently covered by #1 except Orchidaceae, covered by #8).
5. Non-living herbarium specimens for non-commercial purposes.

CoP 14 Prop. 27

Amendment of the annotations to various plant taxa to read as follows:

– For *Adonis vernalis*, *Guaiacum* spp., *Nardostachys grandiflora*, *Picrorhiza kurrooa*, *Podophyllum hexandrum*, *Rauvolfia serpentina*, *Taxus chinensis*, *T. fuana*, *T. cuspidata*, *T. sumatrana* and *T. wallichiana*:

"Designates all parts and derivatives except:

- a) seeds and pollen; and
- b) finished products packaged and ready for retail trade."

– For *Hydrastis canadensis*:

"Designates underground parts (i.e. roots, rhizomes): whole, parts and powdered."

– For *Panax ginseng* and *P. quinquefolius*:

"Designates whole and sliced roots and parts of roots."

– For *Pterocarpus santalinus*:

"Designates logs, wood-chips, powder and extracts."

– For Orchidaceae spp. in Appendix II and all Appendix-II taxa (*Agave victoriae-reginae*, *Aloe* spp., *Anacampseros* spp., *Aquilaria* spp., *Avonia* spp., *Beccariophoenix madagascariensis*, *Bowenia* spp., *Caryocar costaricense*, *Cibotium barometz*, *Cistanche deserticola*, *Cyathea* spp., *Cycadaceae* spp., *Cyclamen* spp., *Dicksonia* spp., *Didiereaceae* spp., *Dionaea muscipula*, *Dioscorea deltoidea*, *Euphorbia* spp., *Fouquieria columnaris*, *Galanthus* spp., *Gonystylus* spp., *Gyrinops* spp., *Hedychium philippinense*, *Lewisia serrata*, *Neodypsis decaryi*, *Nepenthes* spp., *Oreomunnea pterocarpa*, *Orothamnus zeyheri*, *Pachypodium* spp., *Platymiscium pleiostachyum*, *Protea odorata*, *Prunus africana*, *Sarracenia* spp., *Shortia galacifolia*, *Sternbergia* spp., *Swietenia humilis*, *Tillandsia harrisii*, *T. kammii*, *T. kautskyi*, *T. mauryana*, *T. sprengeliana*, *T. sucrei*, *T. xerographica*, *Welwitschia mirabilis*, *Zamiaceae* spp.) and Appendix-III taxa (*Gnetum montanum*, *Magnolia liliifera* var. *obovata*, *Meconopsis regia*, *Podocarpus neriifolius*, *Tetracentron sinense*) annotated with #1:

"Designates all parts and derivatives, except:

- a) seeds, spores and pollen (including pollinia);
- b) seedling or tissue cultures obtained *in vitro*, in solid or liquid media, transported in sterile containers;
- c) cut flowers of artificially propagated plants; and
- d) fruits and parts and derivatives thereof of artificially propagated plants of the genus *Vanilla*."

Proponent: Switzerland, as Depositary Government, at the request of the Plants Committee.

Summary: For plant species in Appendix II, under the terms of the Convention only those parts and derivatives that are specified by annotations to the Appendices are regulated under CITES. A number of different annotations now apply to different plants in Appendix II. The annotations that currently stand are a result of successive modifications to the Appendices and some plants, particularly in higher taxon listings

such as that for Orchidaceae, are subject to more than one annotation. It has been recognised for some time that there is some inconsistency in the use of these annotations, that interpreting some of them may be difficult, that some may give rise to enforcement problems, and that some may cover parts and derivatives that need not be regulated under CITES. A review has taken place under the direction of the Plants Committee, specifically dealing with annotations for medicinal plants, to try to solve some of these problems. The present proposal is the outcome of those deliberations. It deals with existing annotations #1, #2, #3, #7, #8 and #10. The rationale for the proposed changes in each case is set out in Table 2 of the supporting statement.

The main impact of the proposal is to harmonise the terms under which various highly processed products of medicinal plants listed in the Appendices are exempted. In the case of all plants currently covered by #2 (a range of species and genera) and #10 (*Taxus* species), and two species covered by #3 (*Nardostachys grandiflora* and *Rauvolfia serpentina*), the proposed new annotation includes all parts and derivatives except seeds and pollen and finished products packaged and ready for retail trade. The remaining plants covered by #3 and *Pterocarpus santalinus*, currently covered by #7, instead have proposed annotations that specify the parts and derivatives to be covered by the Appendix-II listing—in these cases all other parts and derivatives are excluded from the listing.

For plants covered by #1 (the majority of plant taxa included in Appendix II) and #8 (the Orchidaceae—the largest taxon included in Appendix II), the proposal simply harmonises the existing wording by combining the two annotations. For these species the proposal has no substantive impact at all.

Analysis: Adoption of this proposal should simplify implementation of the Convention with no adverse impacts on the conservation status of the species affected. As noted in the analysis to Proposal 26, this proposal does not address parts and derivatives of species covered by annotations #1 or #8 that may be traded for pharmaceutical purposes (such as *Cibotium barometz* (#1), *Dionaea muscipula* (#1) and *Dendrobium nobile* (#8)). For these species finished products packaged and ready for retail trade are still covered by the provisions of the Convention.

CoP 14 Prop. 28

Deletion of Oconee Bells *Shortia galacifolia* from Appendix II.

Proponent: The United States of America.

Summary: *Shortia galacifolia*, or Oconee Bells, is a small groundcover plant, occurring exclusively in shady forests in relatively small, isolated populations in the Appalachian Mountains of the southeastern USA. Similarities to east Asian *Shortia* spp. suggest it is a relic of ancient, pre-glacial forests that once encircled the globe.

Two varieties of the species, *S. galacifolia* var. *galacifolia* and *S. galacifolia* var. *brevistyla*, are separated by approximately 100 km. The species has poor seed dispersal, pollinators are not reported, and specific conditions for seed germination limit regeneration success in the wild. The species has extremely limited distribution and a limited ability to colonise new areas. Hydroelectric construction in Oconee County during the 1960s destroyed the type locality of the taxon, which represented 60% of the habitat for *S. galacifolia* var. *galacifolia* but it is reported that the species is now abundant in most of its few remaining sites.

There is concern that the species is particularly vulnerable to stochastic events, as well as to forest management activities (e.g., timber harvest, road construction), erosion of soil substrate, invasive species, clearing of lands for rural homes, and feral pigs rooting in habitat occupied by the species. However, it is protected by several state and federal laws. The plant is in cultivation in the USA but there is conflicting information on the origin of these plants. According to the supporting statement much of the material in cultivation is sourced from plants originally gathered during dam construction within the range of the species. The supporting statement also maintains that the species is easy to propagate and that plants from cultivated stock are available in the horticultural trade within the USA. Others however maintain that the species is very difficult to propagate artificially and is not currently known to be produced in commercial quantities by the nursery trade. They believe therefore that the majority of plants currently in cultivation in the USA have been collected from the wild.

The CITES Trade Database show no international trade since 1994 but some limited demand reportedly still exists for this species, for example among alpine specialists in the United Kingdom.

The proponent seeks to delete *S. galacifolia* from Appendix II.

Analysis: Although there is evidence of some demand for the species outside the USA, this is likely to be very limited and there has been no evidence of any international trade in the species for at least ten years. Collection for international trade is never known to have had any impact on wild populations of the species and seems unlikely to do so in the future. The species does not therefore appear to meet the criteria for inclusion in Appendix II.

CoP 14 Prop. 29

Amendment of the annotation to *Euphorbia* spp. included in Appendix II to read as follows:

"Succulent, non pencil-stemmed, non-coralliform, non-candelabriform species only, with shapes and dimensions as indicated, except the species included in Appendix I:

a) pencil-stemmed succulent *Euphorbia* spp.: whole plants with spineless, erect stems of up to 1 cm diameter and a length of more than 25 cm, unbranched or predominantly branching from near the base, leafless or with small leaves;

b) coralliform succulent *Euphorbia* spp.: whole plants with spineless, multiply branched, occasionally sharply pointed stems with a diameter of up to 3 cm and more than 50 cm length, leafless or with un conspicuous or ephemeral leaves; and

c) candelabriform succulent *Euphorbia* spp.: whole plants with angled or winged stems and paired spines, confined to the edges, at least 3 cm diameter and more than 50 cm length, unbranched or branching."

Proponent: Switzerland.

Summary: The genus *Euphorbia* is one of the largest, most widely distributed and most variable genera of plants. There are between 1 500 and 2 000 species, ranging from small annuals to trees, with most species occurring in the tropics. All species have distinct, very reduced flowers, that may be surrounded by colourful leafy bracts, and produce a milky fluid or latex when cut or damaged. This latex can be very caustic. Around 700 species display some degree of succulence, that is are adapted to survive in arid or semi-arid environments through having enhanced water-storage capacity in stems, rootstocks or leaves. Most succulent euphorbias occur in southern and eastern Africa and Madagascar. According to current information, the most species-rich country is South Africa (190 species) followed by Madagascar (99 species), Kenya (71 species) and Somalia (67 species). The conservation status of the vast majority of euphorbias has not been assessed. Some 140 species have been classified as threatened by IUCN, including 81 succulent species from Madagascar.

A wide range of species is of horticultural interest. Some are mass-produced and are widely grown as ornamental garden or house plants. Some of these are traded internationally in large quantities. Others, particularly some dwarf, slow-growing succulent forms, are of interest to specialist collectors. Some of these have been traded as wild collected plants, sometimes in substantial quantities. Some species are also used as medicinal plants.

The entire genus was included in Appendix II of CITES in 1975. In 1997 non-succulent forms were excluded as were artificially propagated cultivars of *Euphorbia trigona*, a taxon only known in cultivation (for discussion of cultivars in the Appendices see Analysis of Proposal 36). At CoP 13 a decision was made to extend the exemption to: artificially propagated specimens of crested, fan-shaped or colour mutants of *Euphorbia lactea*, when grafted on artificially propagated root stock of *Euphorbia nerifolia*, and artificially propagated specimens of cultivars of *Euphorbia* 'Mili' when they are traded in shipments of 100 or more plants, and readily recognisable as artificially propagated specimens. Currently 10 species of succulent *Euphorbia* from Madagascar are included in Appendix I. All are dwarf forms.

The current proposal aims to reduce the workload in implementing the Convention by exempting specimens that the proponent believes do not meet the criteria for inclusion in Appendix II.

Analysis: From the wording of the proposed amendment it is not absolutely clear whether the intent is to exclude from Appendix II any specimens of any species of *Euphorbia* that meets the morphological criteria

defining pencil-stemmed, coralliform or candelabriform as given, or merely those specimens that exceed the size limits given in the proposed annotation (i.e. stems longer than 25 cm in the case of pencil-stemmed, and more than 50 cm in the case of the other two groups). However, from the supporting statement, which as noted in Resolution Conf. 4.6 (Rev. CoP 13), should be considered an integral part of the proposal, it is clear that the intent is the latter. However, there is no provision under CITES for excluding whole specimens on the basis of their size, so such a proposal is not in accordance with the Convention.

CoP 14 Prop. 30

Inclusion of Pau Brasil *Caesalpinia echinata* in Appendix II, including all parts and derivatives.

Proponent: Brazil.

Summary: *Caesalpinia echinata*, commonly known as Pau Brasil or Pernambuco, is a slow-growing leguminous tree, reaching around 12 m in height with a maximum trunk diameter of around 70 cm. It occurs only in Brazil, where it is restricted to the Mata Atlântica (Atlantic Coastal Forest), which now covers less than 100 000 km², under 8% of its original extent. Many aspects of the biology of Pau Brasil and the composition and structure of the plant community in which it occurs are poorly known.

Pau Brasil is classified as Endangered on the IUCN Red List. The species has been heavily traded for over 500 years initially as a source of red dye and more recently as a timber. Since the early 1800s, the heartwood of Pau Brasil has been used for making bows for violins, violas, cellos and basses. Most professional bows today are made from Pau Brasil, which is highly valued for its combination of durability, flexibility and resonance. No comparable substitute material is known and it is seen as an essential material to bow-making, still unsurpassed after several hundred years. Under Brazilian legislation, harvesting and export of the species has been suspended until establishment of scientifically validated technical criteria to guarantee harvest sustainability and conservation of genetic material from these populations (although there is some disagreement regarding the legal status of exports of salvaged wood such as fence-posts). There are reported to be significant stockpiles of Pau Brasil outside Brazil. It is not known how much of the present demand for Pau Brasil is met through use of these stockpiles, and how much through (currently illegal) export of the wood from Brazil. Significant re-planting aims to meet future demand through commercial plantations, although it is reported that plantation-grown wood is considered of inferior quality to wild-sourced wood by bow makers.

The proponent seeks to list Pau Brasil *C. echinata* on CITES Appendix II in accordance with Article II, Paragraph 2a) of the Convention.

Analysis: Pau Brasil is widely agreed to have been heavily depleted by harvest for international trade and has also been affected by habitat loss. It is evidently now scarce in the wild, and known populations are small and scattered. There is ample evidence of continuing high international demand for the species, and indications of illegal trade. While there is little information on the current impact of harvest for international trade it seems likely that any such harvest might further reduce populations to the extent that the species would become eligible for inclusion in Appendix I (if it is not already). The species would therefore appear to meet the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP 13) Annex 2a.

If this proposal were adopted as it currently stands, with all parts and derivatives included, musical instruments and other finished items would become subject to regulation under CITES. If this were deemed not desirable, an annotation designating, for example, logs, sawn wood, veneer sheets and rods would avoid this while still ensuring regulation of the main parts and derivatives in trade.

Inclusion of the rosewoods *Dalbergia retusa* and *D. granadillo* in Appendix II.

Proponent: Germany, on behalf of the European Community Member States, acting in the interest of the European Community.

Summary: *Dalbergia retusa* (Black Rosewood, Nicaraguan Rosewood) is a slow-growing hardwood leguminous tree, which occurs in the tropical dry forests of Central America, from Mexico to Panama and probably north-western Colombia, primarily in Costa Rica, Nicaragua and Panama. The tree has been specifically and extensively felled to harvest the dense and highly prized heartwood, said to be the heaviest and darkest of the Rosewood family. *D. granadillo* is traded as a substitute for *D. retusa* and is found in Mexico and El Salvador.

D. retusa reaches a height of around 20 m and a stem diameter of some 40 cm. It first flowers when around 4–5 years of age and appears to be self-incompatible (that is, it requires pollination from another individual to set viable seed). Natural regeneration has been said to be scarce; however, as with many other *Dalbergia* species, *D. retusa* apparently responds well to fire, with saplings and juveniles reportedly numerous in areas periodically exposed to fire.

Both *Dalbergia retusa* and *D. granadillo* are traded as Cocobolo primarily for guitars and other instruments and also for fine furniture, brush backs, cutlery handles, gun grips, pen blanks and carvings. Historically, the wood was used to make floors, tiles and beams but, because of decreasing availability, use has generally been reduced to smaller items. Wood from *D. retusa* commands high prices, retailing in the USA at US\$15–25 per board foot, compared with US\$5–10 for other tropical hardwoods, indicating its scarcity and desirability. *D. granadillo* wood is less sought-after and cheaper. There is very little information on the volume of international trade although Cocobolo wood is available from numerous sources online. Locally, the wood is used to produce carvings for the tourist trade in the Darién region of Panama. There is no information on volumes used. The source of timber for international trade at present is unclear; some suppliers state that timber comes from private lands; others that timber is salvaged from dam sites and trees felled during hurricanes. The species has been the subject of plantation trials in Costa Rica and Nicaragua but there are not known to be any commercial plantations of the species.

There is little detailed information on the current status of the species in the wild although accessible stocks of timber of *D. retusa* are said to have been largely exhausted, particularly in Costa Rica, where it is said to be almost extinct. Its tropical dry forest habitat has been severely reduced in extent (e.g. by over 60% in Costa Rica) through conversion for cattle-ranching, agriculture and other uses, and such conversion continues. It has been described as threatened in Costa Rica (although is not included in the national red list) and endangered in Panama, where it was apparently once plentiful, and Guatemala. Populations of reasonable size were said in 1998 to remain in Mexico and it was described as frequent in Nicaragua in 2001. Participants at a workshop on internationally traded tree species in Mesoamerica held in 2005 considered the species to be endangered in Mexico and in a critical state in Nicaragua (although with a lack of concrete data). *D. retusa* was assessed by IUCN as Vulnerable (A1acd) in 1998; *D. granadillo* is not currently listed in the IUCN Red List of Threatened Species.

The proponent seeks to list *D. retusa* on CITES Appendix II in accordance with Article II, paragraph 2 a) of the Convention and Resolution Conf.9.24 (Rev. CoP 13) Annex 2a) Paragraph B.

D. granadillo is proposed for listing in Appendix II for look-alike reasons in accordance with Article II, paragraph 2 b) of the Convention and Resolution Conf.9.24 (Rev. CoP 13) Annex 2b) Paragraph A.

Analysis: Although information on *Dalbergia retusa* in the wild and on any population trends is scanty, the species does appear to be scarce, and is widely agreed to have been heavily depleted by harvest for international trade. There is evidence of continuing high international demand for the species, although very little information on volumes in trade. Harvest for international trade may be expected to have a continuing adverse effect. However, as the species can reportedly reproduce at a relatively young age, which is likely to be before it becomes large enough to be harvested for its timber, it is not certain if the impact of harvesting for international trade is enough to risk the species becoming eligible for inclusion in Appendix I, or to reduce the wild population to a level at which its survival might be threatened by continued harvesting or other influences.

If *Dalbergia retusa* were considered to meet the criteria for inclusion in Appendix II, implementation of such a listing would be greatly facilitated by the inclusion of *D. granadillo*, which resembles it and which is traded under the same name.

CoP 14 Prop. 32

Inclusion of Honduras Rosewood *Dalbergia stevensonii* in Appendix II.

Proponent: Germany, on behalf of the European Community Member States, acting in the interest of the European Community.

Summary: *Dalbergia stevensonii*, commonly known as Honduras Rosewood, is a medium-sized leguminous tree, reaching up to 30 m in height and with a maximum trunk diameter of around one metre. It produces a timber that is hard, heavy, durable and resonant and is highly valued in international trade for use in musical instrument manufacture (particularly bars for marimbas and xylophones), as well as, to a lesser extent, fine furniture, cutlery handles and brush backs. The species is restricted to the broadleaf evergreen swamp forests of southern Belize and neighbouring regions of Guatemala and Mexico, where it occurs in a limited area. Little information is available on population status or trends, although in 1984 it was said to occur in fairly large patches within its habitat, and has been reported as a dominant component of the forest types in Belize in which it occurs. These forests, previously relatively inaccessible, are coming under increasing pressure, notably from colonists practising slash-and-burn agriculture and are undoubtedly decreasing in extent. Overall, forest cover in Belize was estimated in 2000 as having declined at an estimated rate of 2.3% (some 36 000 ha) per year. The breeding system of *D. stevensonii* is poorly known; other *Dalbergia* species are outbreeding (require more than one individual for successful pollination) and often show high levels of seed abortion, suggesting that a minimum population density is required for regeneration.

Felling of live, naturally occurring trees of *D. stevensonii* is prohibited in Belize and commercial exploitation of the species in Guatemala is subject to strict regulation. Much of the range of the species in Belize is within protected areas, but enforcement is said to be weak and illegal felling and cross-border trade in this species are reportedly a problem in some areas. Illegal logging in general is reported from Guatemala and Mexico although no information is available on the impact of such logging on *D. stevensonii*.

There is relatively little recent information on the extent of international trade. Guatemala reported the export of just over 250 m³ of Honduras Rosewood in 2004, valued at US\$380 000, to a range of countries including Japan, USA, Germany and the Netherlands. Overall, Honduras Rosewood timber does not appear to be readily available internationally. Several companies that do offer the species on the international market report its origin as Belize where, as noted above, logging of the species is illegal. There is reportedly some local use in Belize. Information is lacking for the other two range States.

The species is not believed to be grown commercially in plantations, although it has been used in at least one tree-planting scheme in Belize. There are currently no known internationally certified sources of supply of Honduras Rosewood.

The proponent seeks to include *D. stevensonii* in CITES Appendix II in accordance with Article II, paragraph 2 a) of the Convention and Resolution Conf. 9.24 (Rev. CoP 13) Annex 2a) Paragraph B.

Analysis: Very little information is available to determine current population size or trends for *D. stevensonii* although there appears to be ongoing loss of habitat due to agricultural conversion. There is a lack of information on the extent or impacts of trade in this species and while trade does seem to occur (including illegally) this species does not appear to be available internationally in large quantities. Overall, there is insufficient information to determine with certainty whether *D. stevensonii* meets the criteria for inclusion in Appendix II.

Inclusion of *Cedrela* spp. in Appendix II.

Proponent: Germany, on behalf of the European Community Member States acting in the interest of the European Community.

Summary: *Cedrela* is a genus of trees which, as currently defined, is restricted to the New World and comprises at least seven species that occur naturally from Mexico and the Caribbean islands south to Argentina. The most widespread species, *C. odorata* has been planted widely in many parts of the region and has been introduced to many countries elsewhere. Once a common tree, it has had a long history of over-exploitation for its timber and now suffers from extensive loss of habitat. Populations are now much reduced in many countries in its native range and it is categorised in the IUCN Red List of Threatened Species as globally Vulnerable. The wood is used extensively in many countries for furniture making and other purposes and large quantities have recently been exported by several South American countries. In many countries there are laws and regulations addressing control of logging and trade in the species but lack of human and financial resources diminishes their effectiveness, and some illegal trade has been reported. Other species in the genus, particularly *C. fissilis* and *C. lilloi*, are also apparently subject to over-exploitation. Both *C. fissilis* and *C. lilloi* are currently classified by IUCN as Endangered.

Cedrela odorata has been listed in CITES Appendix III by Colombia and Peru since 2001. The other species in the genus are proposed for inclusion in Appendix II on a look-alike basis.

The proponent seeks to include *C. odorata* in Appendix II in accordance with Resolution Conf. 9.24 (Rev. CoP 13) Annex 2a, paragraph B, and all other species in the genus in Appendix II in accordance with Resolution Conf. 9.24 (Rev. CoP 13) Annex 2b, paragraph A.

Analysis: *Cedrela* is a genus of New World trees most of which have extensive ranges. The most widespread species, *C. odorata*, and at least some of the other species, have been intensively exploited for their timber, for both domestic use and international trade. Some populations are known to have been substantially reduced by the combined effects of selective logging and habitat destruction. However, detailed information on logging rates and population trends is lacking for many areas. In the absence of such information it is not possible to say with certainty whether any species in the genus meets the criteria for inclusion in Appendix II set out in Resolution Conf. 9.24 (Rev. CoP 13) Annex 2a.

Cedrela species and their products in trade resemble each other. Listing of some species in the Appendices and not others would be likely to create enforcement problems.

Background to Analyses of Proposals 34–37: Orchids and *Taxus*

All the following proposals deal with trade in specimens of artificially propagated hybrids and, in the case of Proposals 36 and 37, cultivars of various plants in taxa that are currently included in Appendix II of the Convention. In discussing these, it is important to understand the terms “specimen”, “species”, “artificially propagated”, “hybrid” and “cultivar”, and in particular what their standing is under the Convention.

Only the terms “species”, “specimen” and “artificially propagated” are referred to in the Convention and only the former is defined. The term “artificially propagated” is defined in Resolution Conf. 11.11 (Rev. CoP13) regarding trade in plants. A determination on how to treat hybrids under the Convention is also included in this Resolution. The term “cultivar”, although it features in current annotations to the Appendices, is not defined or otherwise referred to in any current Resolution or Decision.

Species is defined as: any species, subspecies, or geographically separate population thereof.

Specimen means “any animal or plant, whether alive or dead” and, in the case of a plant: for species included in Appendix I, any readily recognisable part or derivative thereof; and for species included in Appendices II and III, any readily recognisable part or derivative thereof specified in Appendices II and III in relation to the species.

Artificially-propagated specimens

The Convention states: “Where a Management Authority of the State of export is satisfied that any specimen of a plant species was artificially propagated, or is a part of such a plant, or was derived therefrom, a certificate by that Management Authority to that effect shall be accepted in lieu of any of the permits or certificates required under the provisions of Article III, IV or V.”

There is no provision under the Convention for exempting whole specimens of any species included in the Appendices on the basis of their being artificially propagated. This is the reason for Proposal 37, submitted at the request of the Standing Committee to rectify the current listings for four yew *Taxus* species that exempt artificially propagated specimens and are in contravention of the provisions of the Convention. The situation with parts and derivatives of plants in Appendices II and III is less clear. As these have to be both specified and readily recognisable to be included, it could be argued that where parts and derivatives of artificially propagated plants could be readily distinguished (by labelling or otherwise) from the same parts and derivatives of wild plants of that species, then it is legitimate to discriminate between the two in the listing. It could also be argued that the intent of the phrasing in the Convention is that the part and derivative must be readily recognisable as being part of the species concerned and its provenance is not relevant, so it should not be possible to differentiate between the two in their treatment in the Appendices (*i.e.* if cut flowers of a species are excluded then this should be the case whether the plant in question were artificially propagated or not). In their use of annotations to date (notably #1, #2, #4 and #8) the Parties appear to have decided on the former interpretation.

Hybrids

Resolution Conf. 11.11 (Rev. CoP13) states:

“hybrids shall be subject to the provisions of the Convention even though not specifically included in the Appendices if one or both of their parents are of taxa included in the Appendices, unless the hybrids are excluded from CITES controls by a specific annotation in Appendix II or III.”

Here the Parties have apparently implicitly accepted that hybrids are entities equivalent to “species” as treated under the Convention. This interpretation is in conformity with the International Code of Botanical Nomenclature (the Vienna Code, revised 2005) which states (Article 3): “The principal ranks of nothotaxa (hybrid taxa) are nothogenus and nothospecies. These ranks are the same as genus and species. The prefix ‘notho’ indicates the hybrid character.”

If the Parties have accepted hybrids as entities equivalent to species under the Convention, it follows that hybrids can be included or excluded from the Appendices in the same way. However, it also follows that exemptions for hybrids are on the basis of their being identifiable (notho)taxa that can be excluded on the basis of the paragraph in Resolution Conf. 11. (Rev CoP13 above) and *not* on the basis of their being artificially-propagated. Under this interpretation the current annotations for several plant taxa in the Appendices (cacti, *Cyclamen persicum*, euphorbias and orchids), which specify exemption of artificially propagated hybrids (and in some cases cultivars—see below), are at the very least redundantly phrased and at best misleading: if the named taxa are excluded from the provisions of the Convention, then they must be so whether artificially propagated or not.

However, in some of the taxa currently covered by these exemptions (notably the four orchid genera) wild hybrids are known. Depending on interpretation, these may or may not be covered by the current annotation (although it is difficult to see any justification for their not being covered). If they are covered, and therefore exempt from the provisions of the Convention, they will be so whether wild collected or not. By extension, if hybrids in these genera are excluded from the Convention, it is difficult to see what standing the elaborate description of the conditions attached to their exemption can have (see Introduction to Orchid Proposals and analyses of Proposals 34 and 35 for details). This is because once a species, and by extension a hybrid, is excluded from the provisions of the Convention, no conditions can be attached to that exclusion, as they no longer fall under the remit of the Convention.

It seems that these conditions are designed to show that the specimens in question are indisputably of hybrid origin, and by implication are artificially created hybrids. However, they cannot distinguish between artificially created hybrids, naturally occurring hybrids (that may be artificially propagated) or cultivars of individual species (see below).

A solution to the problem of the treatment of wild hybrids (which are common in all groups of orchids) could be use of the wording “artificially created” hybrids, or “hybrid taxa not known to occur in the wild”. However, even if this were done, it is not easy to see how the attachment of conditions regarding the state of specimens to be exempted can be justified under the Convention.

Cultivars

It has been assumed (for example in the supporting statement to Proposal 37) that cultivars are treated as equivalent to hybrids under the Convention. However, in the absence of any definition of the term “cultivar” in the Convention, there seems to be no justification for this in any internationally accepted codes of nomenclature.

The International Code of Botanical Nomenclature defines “cultivar” as: “A special category of plants used in agriculture, forestry, and horticulture defined and regulated in the International Code of Nomenclature for Cultivated Plants (ICNCP) (Art. 28 Notes 2, 4, and 5).” (Appendix VII).

The latter code defines a cultivar as: “An assemblage of plants that has been selected for a particular attribute or combination of attributes and that is clearly distinct, uniform and stable in these characteristics and that when propagated by appropriate means retains these characteristics” (ICNCP Article 2.2).

Although cultivars may be of hybrid origin, very often they are not. They may also not necessarily be the result of selective breeding in cultivation. The International Code of Nomenclature for Cultivated Plants states: “An assemblage of individual plants grown from seed derived from uncontrolled pollination may form a cultivar when it meets the criteria laid down in Article 2.2 and when it can be distinguished consistently by one or more characteristics even though the individual plants of the assemblage may not necessarily be genetically uniform” (Article 2.11). Also: “An assemblage of plants grown from seed that is repeatedly collected from a particular provenance and that is clearly distinguishable by one or more characters (a topovariant) may form a cultivar” (Article 2.15), and: “Plants of a species or lower taxonomic unit brought into cultivation may not demonstrate the range of variation associated with that taxonomic unit in the wild: if an assemblage of those plants has one or more attributes that makes it worth distinguishing, it may be given a cultivar or group name” (Article 18.2).

From this it is evident that a cultivar may be indistinguishable from a plant of wild provenance. Cultivars that are simply selected forms of wild plants cannot be distinguished by their names from those that arise from hybridisation in cultivation or intense selective breeding of strains within a single species (ICNCP Article 13.3). Moreover, the ICNCP states that the botanical categories *varietas* (var.) and *forma* (f.) are not the equivalent of cultivar and these terms must not automatically be treated as equivalent.

As noted above, under CITES, the entities that can be included or excluded from the Appendices are specimens, parts or derivatives of “species”. Species are defined as: any species, subspecies, or geographically separate population thereof (Article I). As both the International Code of Botanical Nomenclature and the International Code of Nomenclature for Cultivated Plants make clear, cultivars do not fit into this definition, and it seems therefore that they cannot be considered as entities that have standing under the Convention separate from that of the “species” (*sensu* CITES) of which they are a part. It would appear that whole specimens of cultivars cannot therefore be excluded from the Appendices without excluding the species.

This has implications for the current exemptions in the Appendices of artificially propagated cultivars of a number of species (*Schlumbergera truncata* and *Opuntia microdasys* (Cactaceae); *Cyclamen persicum* (Primulaceae); and *Euphorbia trigona* (Euphorbiaceae) (although *E. trigona* is only known in cultivation, so this exemption effectively excludes the entire taxon).

Introduction and background to the orchid proposals

The entire orchid family or Orchidaceae—the world’s largest plant family, with around 25,000 species—was included in the CITES Appendices in 1975, because of concerns about the impact of collection for the international horticultural trade on wild populations of a number of species and genera. Although the vast majority of orchid species did not feature in international trade, or did so in negligible quantities, it was considered that inclusion of the entire family in Appendix II would assist in the control of trade in those species for which wild-collection posed a threat. Several species of particular concern were included in Appendix I at that time.

Although there was (and is) substantial horticultural interest in some orchid species, grown as unimproved or wild-type forms, the great majority of orchids grown today are artificially created and propagated forms. These are usually hybrids, or grexes (progeny resulting from a cross of two particular parental plants), but also sometimes selected forms of particular species. Unlike most other groups of plants, orchids hybridise

widely and easily. For the last 150 years they have been crossed in cultivation to produce over 110 000 named grexes. Orchid hybrids can involve up to 20 distinct species from up to nine distinct natural genera. The first hybrid was made in 1854 and detailed records have been maintained since that time. Registered hybrids, with their parentage and originator (if known) are published in the International Register of Orchid Hybrids (the Sander's List), maintained by the Royal Horticultural Society in the UK. A supplement to this is produced four times a year. During 2006 over 2 000 new grexes were registered.

There was already significant international trade in artificially propagated orchids at the time CITES came into force, for both specialist markets and the general horticultural trade. Since then, the latter trade has grown enormously, thanks to worldwide economic growth, the globalisation of much of the horticultural industry, and technical advances in orchid propagation. Currently, CITES records show several tens of millions of artificially propagated orchids traded internationally each year. This trade covers a very wide range of named forms, the great majority in three genera (*Cymbidium*, *Dendrobium* and *Phalaenopsis*) and of hybrid origin.

Regulating this trade is perceived to place a significant burden on CITES management authorities, exporters and importers with arguable conservation benefit. At the last two meetings of the CoP (CoP12, Santiago, Chile, November 2002 and CoP13, Bangkok, Thailand, October 2004) proposals were put forward to exclude at least a portion of this trade from the provisions of CITES whilst still retaining the general listing for the family Orchidaceae in Appendix II. Modified forms of the original proposals were accepted, leading to complex and unusual annotations, an integral part of which has been a determination of the kinds of consignment that may be excluded as well as guidelines to determine how specimens within those consignments may be recognised as appropriate for exclusion.

At **CoP 12** a decision was made to exclude artificially propagated specimens of hybrids within the genus *Phalaenopsis* from the provisions of the Convention under a series of conditions ("that shipments should be in containers each of which had at least 100 plants that were readily recognisable as artificially propagated, with no signs of being wild-collected, with each container only having one hybrid and with each shipment accompanied by appropriate documentation"). Plants not clearly qualifying for the exemption were to be accompanied by appropriate CITES documents. This exemption came into force in early 2003.

The Plants Committee, at its 14th meeting (Windhoek, February 2004), discussed implementation of this annotation where it was reported that an informal survey of selected orchid-exporting and importing countries and consultations with US CITES enforcement officials had found no shipments of *Phalaenopsis* hybrids without CITES export certificates, indicating that the exemption allowed for under this annotation had not been taken up. Three reasons were given for the failure to use this exemption: (1) some exporters were not aware of its existence; (2) some exporters were aware of it, but feared that importing countries would not recognise it and would detain shipments that lacked CITES documents; and (3) the current minimum number of plants per container (100) was too high because most shipments involved containers with far fewer plants.

At **CoP 13** three different proposals were considered, one to exclude all artificially propagated orchid hybrids, one to exclude artificially propagated hybrids of a number of genera (*Cymbidium*, *Dendrobium* (*nobile*- and *phalaenopsis*-types only), *Miltonia*, *Odontoglossum*, *Oncidium*, *Phalaenopsis* and *Vanda*) when traded in a flowering state and meeting a number of other conditions similar to those applying under the then existing exemption for *Phalaenopsis* hybrids, and one modifying the existing exemption for *Phalaenopsis* hybrids to reduce the minimum number of plants per container. Modified versions of the first two proposals were accepted, resulting in the present situation, which came into effect in early 2005, as follows:

Artificially propagated specimens of hybrids of the genera Cymbidium, Dendrobium, Phalaenopsis and Vanda are not subject to the provisions of the Convention when:

- 1) *the specimens are traded in shipments consisting of individual containers (i.e. cartons, boxes or crates) each containing 20 or more plants of the same hybrid;*
- 2) *the plants within each container can be readily recognized as artificially propagated specimens by exhibiting a high degree of uniformity and healthiness; and*
- 3) *the shipments are accompanied by documentation, such as an invoice, which clearly states the number of plants of each hybrid.*

Artificially propagated specimens of the following hybrids:

- *Cymbidium: Interspecific hybrids within the genus and intergeneric hybrids*
- *Dendrobium: Interspecific hybrids within the genus known in horticulture as "nobile-types" and "phalaenopsis-types"*
- *Phalaenopsis: Interspecific hybrids within the genus and intergeneric hybrids*

– Vanda: *Interspecific hybrids within the genus and intergeneric hybrids*

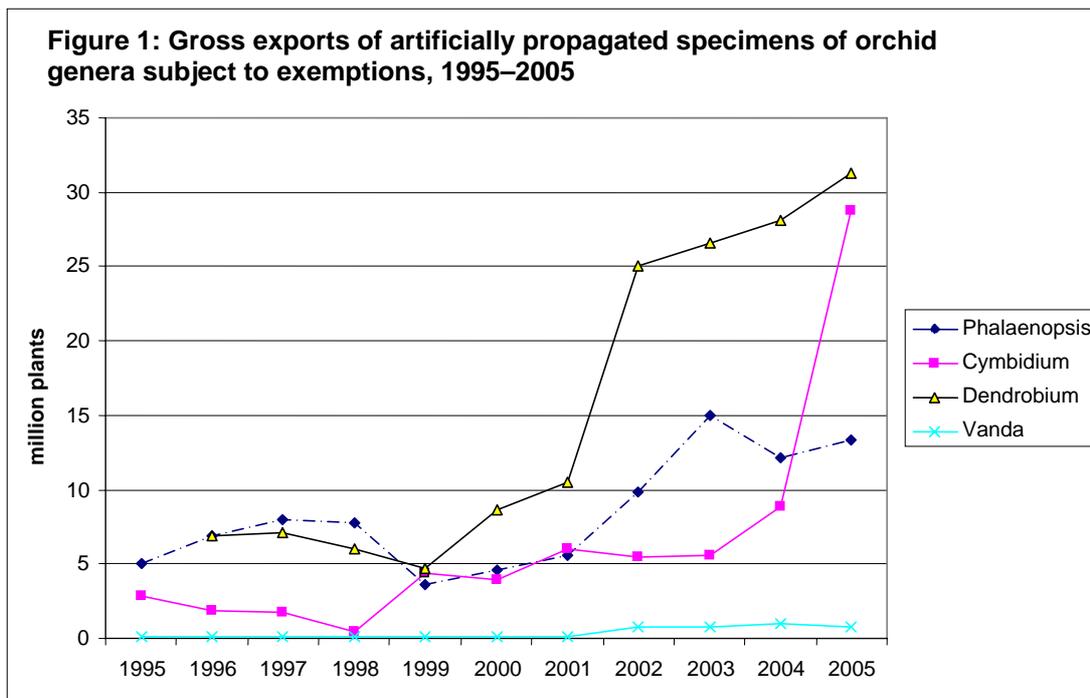
are not subject to the provisions of the Convention when:

- 1) *they are traded in flowering state, i.e. with at least one open flower per specimen, with reflexed petals;*
- 2) *they are professionally processed for commercial retail sale, e.g. labelled with printed labels and packaged with printed packages;*
- 3) *they can be readily recognized as artificially propagated specimens by exhibiting a high degree of cleanliness, undamaged inflorescences, intact root systems and a general absence of damage or injury that could be attributable to plants originating in the wild;*
- 4) *the plants do not exhibit characteristics of wild origin, such as damage by insects or other animals, fungi or algae adhering to leaves, or mechanical damage to inflorescences, roots, leaves or other parts resulting from collection; and*
- 5) *the labels or packages indicate the trade name of the specimen, the country of artificial propagation or, in the case of international trade during the production process, the country where the specimen was labelled and packaged; and the labels or packages show a photograph of the flower, or demonstrate by other means the appropriate use of labels and packages in an easily verifiable way.*

The two parts of the annotation deal with different cases. The first is more general, and does not require specimens in trade to be in flower but does require them to be in containers each containing 20 or more plants of one hybrid. The second requires plants to be in flower but does not impose a minimum requirement for the number of plants in a container. In addition, the former applies generally to the genus *Dendrobium* while the latter applies only to 'nobile-type' and 'phalaenopsis-type' hybrids within the genus.

Due to the unusual nature of the annotation, the CoP directed Parties to monitor its implementation and report to the Plants Committee, which was in turn directed to report to the 14th meeting of the CoP (Decisions 13.98 and 13.99). At the request of the Plants Committee, the Parties were subsequently asked a number of questions regarding the annotation (Notification 2005/047, August 2005). Twelve Parties responded and their answers were presented in tabular form to the Plants Committee in July 2006. Most respondents commented on the complexity of the existing annotation, but were generally in favour of the principle of excluding artificially propagated orchid hybrids from the provisions of the Convention. All indicated that it was implemented in their country, in the sense that it was incorporated into domestic regulations enacting CITES and, in some cases, that its contents had been publicised or communicated directly to the orchid-trading community. However, no indication was given as to whether the exemption was actually being used.

Inspection of export figures of artificially propagated plants reported under CITES gives an indication of the current level of uptake of the exemption. Figure 1 below shows reported exports for the four genera for the period 1995–2005. It is difficult to discern a major impact on reporting of the exemptions. For *Phalaenopsis*, the exemption came into effect in early 2003 and there is a drop in reported trade between 2003 and 2004, which may be attributable to it (although see above). However, reported trade then increased between 2004 and 2005. Reported trade in *Dendrobium* and *Cymbidium* has continued to increase, in the latter case dramatically between 2004 and 2005.



Source: CITES Trade Database

¹ exemption for *Phalaenopsis* came into effect in early 2003

² exemption for *Cymbidium*, *Dendrobium* and *Vanda* came into effect in early 2005

The implementation of the annotation and its possible expansion were discussed at the 16th meeting of the Plants Committee (Lima, Peru, July 2006). One outcome of this discussion was the text of Proposal 35, submitted by Switzerland as the Depository Government.

The Committee decided that it was premature to extend the current annotation to other genera of Orchidaceae. However, it did agree that a draft Decision should be submitted for consideration at CoP14 as follows:

Directed to the Parties and to the Plants Committee

The Plants Committee shall monitor and assess possible conservation problems arising from the implementation of the annotation for Orchidaceae spp. included in Appendix II. On the basis of information and identification materials provided by exporting and importing countries, the Plants Committee should develop recommendations concerning possible further exemptions for artificially propagated hybrids of Orchidaceae spp. included in Appendix II, in particular for the genera *Miltonia*, *Odontoglossum* and *Oncidium*, taking into consideration the capacities of countries to implement and control such exemptions effectively.”

Proposal 34 which entails just such an expansion, would appear to pre-empt this decision. It is submitted by Switzerland acting on its own behalf.

Amendment of the annotation to Orchidaceae spp. included in Appendix II to read as follows:

"Artificially propagated hybrids of the following genera are not subject to the provisions of the Convention, if conditions, as indicated under a) and b), are met: *Cymbidium*, *Dendrobium*, *Miltonia*, *Odontoglossum*, *Oncidium*, *Phalaenopsis* and *Vanda*:

- a) Specimens are readily recognisable as artificially propagated and do not show any signs of having been collected in the wild such as mechanical damage or strong dehydration resulting from collection, irregular growth and heterogeneous size and shape within a taxon and shipment, algae or other epiphyllous organisms adhering to leaves, or damage by insects or other pest; and
- b) i) when shipped in non flowering state, the specimens must be traded in shipments consisting of individual containers (such as cartons, boxes, crates or individual shelves of CC-containers) each containing 20 or more plants of the same hybrid; the plants within each container must exhibit a high degree of uniformity and healthiness; and the shipment must be accompanied by documentation, such as an invoice, which clearly states the number of plants of each hybrid; or
 - ii) when shipped in flowering state, with at least one fully open flower per specimen, no minimum number of specimens per shipment is required but specimens must be professionally processed for commercial retail sale, e.g. labelled with printed labels or packaged with printed packages indicating the name of the hybrid and the country of final processing. This should be clearly visible and allow easy verification.

Plants not clearly qualifying for the exemption must be accompanied by appropriate CITES documents."

Proponent: Switzerland.

This analysis should be read in conjunction with the Background to the analysis of Proposals 34–37 and the Introduction and background to the orchid proposals.

Summary:

Note: This proposal differs from the next proposal (35) only in the inclusion of three additional genera (*Miltonia*, *Odontoglossum* and *Oncidium*). The analysis will therefore confine itself to discussion of these. See the analysis of proposal 35 for further discussion.

Miltonia, *Odontoglossum* and *Oncidium* are three closely related genera of orchids from central and south America and, in the case of *Oncidium*, southern parts of North America. The three genera are included in what is known as the *Oncidium/Odontoglossum* alliance, along with some 16 other genera from the Americas. The *CITES Orchid Checklist* currently recognises six species and eight naturally occurring hybrids of *Miltonia*. The genera *Odontoglossum* and *Oncidium* have not yet been covered in the checklist. There are generally considered to be around 100 species of the former and some 300 species of the latter (although both totals may be expected to be reduced considerably following systematic review).

Plants in the genera, particularly *Oncidium*, are popular in cultivation and a very wide range of forms is grown, including species, hybrids within each genus, hybrids between the genera and hybrids that include these genera and others (particularly other genera in the *Oncidium/Odontoglossum* alliance). Recorded international trade in artificially propagated *Oncidium* is substantial, with an average of just over one million plants a year during the period 1996–2005. Recorded trade in artificially propagated *Odontoglossum* is much lower, averaging just over 20 000 a year during the same period. Recorded trade in artificially propagated *Miltonia* has also been low for most of the period, but increased greatly in 2005, when 270 000 were reported as exports from the Republic of Korea.

Recorded trade in wild-collected plants of *Miltonia* and *Odontoglossum* has also been at a negligible level (34 and 56 plants since 1997 respectively). However there has been greater reported trade in wild-collected plants of *Oncidium*, with over 15 000 reported in trade for the period 1996–2005. The trade involved some 60 species. In addition around 2 000 plants were reported at generic level only. Most species were traded in small quantity, with only *O. carthagenense*, *O. lindenii*, *O. luridum*, *O. sphacelatum* recorded in amounts of over 1 000. Exports were recorded from some 16 range States and a number of non range States (CITES Trade Database).

Analysis: See Background to the analysis of Proposals 34–37 and analysis to Proposal 35. On the basis of the arguments in the Background (which discuss the way that hybrids and artificially propagated plants can be dealt with under the Convention) it is questionable whether the conditions in paragraphs a and b can have any standing.

Wild hybrids in at least one of the additional genera proposed here (*Miltonia*) are known. In general, plants in the *Oncidium/Odontoglossum* alliance hybridise readily in cultivation and a very large number of intrageneric and intergeneric hybrids exists. As discussed in the analysis to Proposal 35, it is not clear whether hybrids with any parentage of *Miltonia*, *Oncidium* and *Odontoglossum* are intended to be excluded, or only intrageneric hybrids, or intrageneric hybrids and hybrids whose parentage only includes two or more of the seven genera proposed.

Trade in a wide range of species and hybrids in the three additional proposed genera has been recorded. Implementation of this annotation could conceivably create enforcement problems.

CoP 14 Prop. 35

Amendment of the annotation to Orchidaceae spp. included in Appendix II to read as follows:

"Artificially propagated hybrids of the following genera are not subject to the provisions of the Convention, if conditions, as indicated under a) and b), are met: *Cymbidium*, *Dendrobium*, *Phalaenopsis* and *Vanda*:

- a) **Specimens are readily recognizable as artificially propagated and do not show any signs of having been collected in the wild such as mechanical damage or strong dehydration resulting from collection, irregular growth and heterogeneous size and shape within a taxon and shipment, algae or other epiphyllous organisms adhering to leaves, or damage by insects or other pest; and**
- b) i) **when shipped in non flowering state, the specimens must be traded in shipments consisting of individual containers (such as cartons, boxes, crates or individual shelves of CC-containers) each containing 20 or more plants of the same hybrid; the plants within each container must exhibit a high degree of uniformity and healthiness; and the shipment must be accompanied by documentation, such as an invoice, which clearly states the number of plants of each hybrid; or**
 - ii) **when shipped in flowering state, with at least one fully open flower per specimen, no minimum number of specimens per shipment is required but specimens must be professionally processed for commercial retail sale, e.g. labelled with printed labels or packaged with printed packages indicating the name of the hybrid and the country of final processing. This should be clearly visible and allow easy verification.**

Plants not clearly qualifying for the exemption must be accompanied by appropriate CITES documents."

Proponent: Switzerland as Depositary Government at the request of the Plants Committee.

This analysis should be read in conjunction with the Background to analyses of Proposals 34–37 and the Introduction and Background to the orchid proposals

Summary: This proposal, which is the result of deliberations by the Plants Committee, is an attempt to rationalise the existing annotation for the family Orchidaceae exempting artificially propagated hybrids in four genera from the provisions of the Convention.

Analysis: See Background to the analysis of Proposals 34–37, which discusses the way that hybrids and artificially propagated plants can be treated under the Convention. On the basis of the arguments in the

Background, it is questionable whether the conditions in paragraphs a) and b) of the proposed annotation, and the numbered paragraphs of the existing annotations have any standing.

Should the Parties decide that they do, the following points may be worth considering:

The proposal concerns only artificially propagated hybrids and can therefore, of itself, have no direct impact on wild populations of species included in the Appendices. It may conceivably have an indirect impact by creating an avenue whereby wild-collected specimens of orchids included in the Appendices could be traded in contravention of CITES. However, this seems unlikely, particularly as the visual criteria for recognising plants as artificially propagated are more detailed than those included in the current annotation. Moreover, no species in the genera concerned is currently included in Appendix I, so that commercial trade in wild-collected specimens of the orchids that most closely resemble those included in the proposed exemption is permitted under CITES (though not necessarily under national legislation) as long as the relevant conditions in the Convention are met. The orchids included in the proposed exemption do not closely resemble any Appendix-I orchids, so it is unlikely that trade of any of the latter would be attempted under this exemption.

Implementation and interpretation of this annotation may prove challenging, particularly for enforcement officers, for the following reasons:

1. *Resolution Conf. 11.11 (Rev. CoP13)*, regarding trade in plants, states “hybrids shall be subject to the provisions of the Convention even though not specifically included in the Appendices if one or both of their parents are of taxa included in the Appendices, unless the hybrids are excluded from CITES controls by a specific annotation in Appendix II or III;”.

It is not completely clear from the proposal (nor from the existing annotation) whether the statement “hybrids of the following genera” included in the annotation means:

- a. Hybrids within each of the specified genera;
- b. Hybrids within each of the specified genera and between any or all of the specified genera;
- c. Hybrids that include any of the specified genera in their parentage, but that may also have other genera in their parentage.

From the supporting statement it seems that option c. is that intended. If this is the case, it will not be possible in the case of intergeneric hybrids to determine which satisfy the exemption and which do not without access to detailed orchid genealogies. This is because it is very often not obvious from the name of an artificially created hybrid genus what its parentage is (e.g. the artificial genera *Aranda* and *Ascocenda* both include *Vanda* in their parentage and would therefore qualify for exemption, while the similarly-named *Aliceara* does not). Overall, it seems that roughly half of currently named grexes may qualify for exemption while the other half would not. This seems likely to cause confusion (although in terms of quantities, available data indicate that the great majority of specimens in trade would qualify for exemption).

2. The exemption applies only to hybrids. Improved forms of species, of which there are a number in the genera concerned that feature in the horticultural trade (eg. *Dendrobium nobile*, *Vanda caerulea*), would, strictly, be excluded from the exemption. As these may be known by cultivar names only (see Background to Analyses of Proposals 34–37 for further discussion of cultivars), they would not be distinguishable through labelling from hybrids.

3. A number of naturally occurring hybrids of the genera concerned are included in the CITES Orchid Checklist (eg: *Phalaenopsis x leucorrhoda* (Philippines), *P. x intermedia* (Philippines), *P. x valentinii* (Malaysia), *Vanda x boumaniae* (Indonesia), *Vanda x charlesworthii* (Myanmar)). The position of these taxa under the exemption is ambiguous. It is not possible to treat artificially propagated whole plants (specimens) differently from wild-collected whole plants under the terms of the Convention (see Background to Proposals 34–37).

4. The proposed (and existing) annotation sets out criteria by which it is to be judged whether any given consignment qualifies for exemption or not. It further states: “Plants not clearly qualifying for the exemption must be accompanied by appropriate CITES documents”. However, it does not provide guidance as to who should be responsible for making such a judgement. Presumably this is intended to be responsible authorities in importing, exporting and trans-shipping countries. Verification of the criteria implicitly requires inspection of shipments and, under normal circumstances, this falls primarily to enforcement agencies. For exporters and importers to make extensive use of this exemption, they will have to have the confidence that

the criteria in the annotation are applied consistently by authorities, including enforcement agencies, in importing, exporting and trans-shipping countries. Where there is any doubt that this will be the case, it seems very likely that exporters and importers will continue to trade these hybrids with CITES documents rather than risk the losses they would incur if shipments were erroneously confiscated or refused import.

Article VII, paragraph 5 of the Convention allows the use of a certificate of artificial propagation issued by a Management Authority to be used as an import or export permit. In *Resolution Conf. 12.3*, the Parties recognised that if certain conditions were met, phytosanitary certificates could serve as such certificates. At least some exporting countries have made use of this to expedite procedures in trade in artificially propagated orchids. However one of these (Republic of Korea) has reported to the Plants Committee that orchids with such documentation have on occasion been rejected by importing countries. Until exporters have confidence that existing expediting procedures will be adhered to consistently, it seems unlikely that they will make extensive use of further exemptions that are complex and open to differing interpretations.

CoP 14 Prop. 36

Amendment of the listing of *Taxus cuspidata* in Appendix II by:

- 1. Deleting the phrase "and infraspecific taxa of this species"; and**
- 2. Annotating to read as follows:**
"Specimens of hybrids and cultivars are not subject to the provisions of the Convention."

Proponent: United States of America.

This analysis should be read in conjunction with the Background to Proposals 34–37.

Summary: *Taxus cuspidata* was included in Appendix II along with three other Asian Yew *Taxus* species (*T. chinensis*, *T. fuana* and *T. sumatrana* at CoP13 (effective as of 12/01/05) because of concerns regarding harvesting of wild populations for pharmaceutical purposes, notably the production of taxanes, particularly for the production of the anti-cancer drug paclitaxel. The species were listed with annotation #10 (Designates all parts and derivatives except: a) seeds and pollen; and b) finished pharmaceutical products) and also with an annotation to exclude whole artificially propagated plants in small containers and appropriately labelled. The Himalayan Yew *Taxus wallichiana* had been included in Appendix II in 1994 and is currently also annotated with #10.

As noted in the supporting statement, the latter annotation is contrary to the terms of the Convention, as there is no provision within the Convention for excluding from the Appendices whole specimens (as opposed to parts or derivatives) of any 'species' that is itself included in the Appendices, whether artificially propagated or not. The Standing Committee has therefore asked Switzerland to put forward this proposal to rectify the situation.

Analysis: In the first instance it needs to be determined whether the categories proposed in the amendment are eligible for consideration under the terms of the Convention. To do this hybrids and cultivars need to be considered separately.

***Taxus cuspidata* hybrids**

Hybrids of *T. cuspidata* that are recorded in cultivation have as the other parent either the European Yew *T. baccata* or the Canadian Yew *T. canadensis*, neither of which is included in the appendices. Hybrids with the former are generally known as *T. x media*, with the latter as *T. x hunnewelliana* (Collins *et al.*, 2003). It is clearly possible to exclude such hybrids under the terms of the Convention as interpreted in Resolution Conf. 11.11 (Rev. CoP13).

It is not clear, however, from Resolution Conf. 11.11 whether hybrids of *T. cuspidata* with any of the other species that are included in Appendix II would be effectively excluded from the Appendices or not (this is a general problem with interpretation of this resolution with respect to the position of hybrids – see, for example, the analysis of proposal 35). This lack of clarity may create enforcement problems although, as noted above, as far as is known all cultivated and traded hybrids of *T. cuspidata* are with the non-listed *T. baccata* or *T. canadensis*.

Regarding parts and derivatives, excluding hybrids of *T. cuspidata* from the Appendices means that parts and derivatives derived from them are *de facto* excluded. No labelling conditions can therefore be attached

to them. This might create enforcement problems as products of, for example, *T. x media* are known to be exported from China, the range State of *T. cuspidata* (TRAFFIC International, 2007). However, as noted in the supporting statement, it is not evident that the problems so created would be any greater than exist at present with some yew species included in the Appendices and others, also used in the pharmaceutical industry, not included.

***Taxus cuspidata* cultivars**

See Background to Proposals 34–37. It is evident that the term cultivar has no standing under the Convention, and it is not therefore possible to exclude cultivars of a species without effectively excluding the whole species. The Parties decided at COP 13 that the species met the criteria for inclusion in Appendix II. There does not appear to be any new information to contradict this.

With regard to parts and derivatives, as noted in the Introduction to Proposals 34–37, the situation is less clear. The Parties must decide whether it is possible to interpret the Convention such that parts and derivatives (of an Appendix-II listed plant such as *T. cuspidata*) derived from artificially propagated plants can be treated in a different way under the Appendices from those derived from wild-collected plants of the same species, and further that, if so, the two can be readily distinguished from each other (which in reality could only be done by labelling, following Resolution Conf. 9.6 rev). If so, then it might be possible to annotate the listing for *Taxus cuspidata* with, for example, 'excludes parts and derivatives of artificially propagated plants'.

CoP 14 Prop. 37

A. Deletion of the annotation to *Taxus chinensis*, *Taxus fuana* and *Taxus sumatrana* in Appendix II that reads:

"Whole artificially propagated plants in pots or other small containers, each consignment being accompanied by a label or document stating the name of the taxon or taxa and the text 'artificially propagated', are not subject to the provisions of the Convention"; and

B. Amendment of the annotation to *Taxus cuspidata* to read:

"Artificially propagated hybrids and cultivars of *Taxus cuspidata* in pots or other small containers, each consignment being accompanied by a label or document stating the name of the taxon or taxa and the text 'artificially propagated', are not subject to the provisions of the Convention."

Proponent: Switzerland (as Depositary Government, at the request of the Standing Committee).

This analysis should be read in conjunction with the Background to Proposals 34–37.

Summary: These four species of yew were included in Appendix II at CoP13 (effective as of 12/01/05) because of concerns regarding harvesting of wild populations for pharmaceutical purposes, notably the production of the anti-cancer drug paclitaxel. The species were listed with annotation #10 (Designates all parts and derivatives except: a) seeds and pollen; and b) finished pharmaceutical products) and also with an annotation to exclude whole artificially propagated plants in small containers and appropriately labelled. The Himalayan Yew *Taxus wallichiana* had been included in Appendix II in 1994 and is currently also annotated with #10.

As noted in the supporting statement, the annotation regarding whole artificially propagated plants is contrary to the terms of the Convention, as there is no provision within the Convention for excluding from the Appendices whole specimens (as opposed to parts or derivatives) of any 'species' that is itself included in the Appendices, whether artificially propagated or not. The Standing Committee has therefore asked Switzerland to put forward this proposal to rectify the situation.

If accepted all four species would still retain annotation #10, although this will have been altered to "Designates all parts and derivatives except: a) seeds and pollen; and b) finished products packaged and ready for retail trade", if the relevant parts of Proposal 27 have been accepted.

Analysis:***Taxus chinensis*, *T. fuana* and *T. sumatrana***

If the proposal were accepted, all whole specimens of the above species and their hybrids would be included in Appendix II and subject to regulation whether artificially propagated or not. Although *T. chinensis* is grown as an ornamental outside its range States, there is no evidence of any extensive international trade in specimens of this or the other two species, or hybrids between them, for horticulture.

***Taxus cuspidata* hybrids**

See analysis of Proposal 36 and Background to proposals 34–37. Following the arguments in the Background to Proposals 34–37, the exclusion from the provisions of the Convention of whole specimens of hybrids of *T. cuspidata* (of which the forms in cultivation are largely hybrids with *T. baccata*, generally known as *Taxus x media*, and to a lesser extent hybrids with *T. canadensis* known as *T. x hunnewelliana* (see Collins *et al.*, 2003)) is in conformity with the terms of the Convention as interpreted in Resolution Conf. 11.11 (Rev. CoP13). However following the same argument (and the logic behind the present proposal), it is not possible to exclude only artificially propagated specimens of such hybrids: the exemption must apply to all such hybrids, whatever their origin, and by extension to all parts and derivatives derived therefrom. The only recorded hybrids of *T. cuspidata* in trade are with species that do not share any part of the geographical range of *T. cuspidata* and these must therefore originate in artificially propagated or naturalised stock.

Exclusion of parts and derivatives might create enforcement problems as products of, for example, *T. x media*, are known to be exported from China, the range State of *T. cuspidata* (TRAFFIC International, 2007). However, it is not evident that the problems so created would be any greater than exist at present with some yew species included in the Appendices and others, also used in the pharmaceutical industry, not.

It is not clear, however, from Resolution Conf. 11.11 whether hybrids of *T. cuspidata* with any of the other species that are included in Appendix II would be effectively excluded from the Appendices or not (this is a general problem with interpretation of this resolution with respect to the position of hybrids – see, for example, the analysis of Proposal 35). This lack of clarity may create enforcement problems although there is no evidence of the presence in trade of hybrids of *T. cuspidata* with any species other than *T. baccata* and *T. canadensis*, neither of which is included in the Appendices.

***Taxus cuspidata* cultivars**

See analysis of Proposal 26. It would appear that the term 'cultivar' has no standing at present under the Convention and that therefore it is not possible to exclude whole specimens of cultivars from the provisions of the Convention without effectively excluding the whole species. The Parties decided in 2004 that *T. cuspidata* met the criteria for inclusion in Appendix II. No new information has come to light since then to contradict this.

ANNEXES:

**ANNEX 1. Appendix I and Appendix II Biological Criteria
(Resolution Conf. 9.24)**

**ANNEX 2.1. Summary of the IUCN RED LIST Categories and Criteria
version 2.3 (IUCN, 1994)**

**ANNEX 2.2. Summary of the IUCN RED LIST Categories and Criteria
version 3.1 (IUCN, 2001)**

ANNEX 1. APPENDIX I AND APPENDIX II BIOLOGICAL CRITERIA (Resolution Conf. 9.24 (Rev CoP13))

Note: The numbers presented below are meant to serve as guidelines and not as thresholds (see Res Conf 9.24 (Rev CoP 13) Annex 5)

CRITERIA FOR INCLUSION OF SPECIES IN APPENDIX I – Use of at least one of the A-C criteria for species that are or may be affected by trade.

A. Small Wild Population

Small number of individuals and at least one of the following occurs:

<5 000

- i) decline in number of individuals or area and quality of habitat 20% or more in last 5 years or 2 generations
- ii) each subpopulation very small <500
- iii) individuals concentrated geographically during one or more life history phase
- iv) large short-term fluctuation in population size
- v) high vulnerability to either intrinsic or extrinsic factors

B. Restricted Distribution

Restricted area of distribution and at least one of the following occurs:

- i) fragmentation/occurrence at very few locations
- ii) large fluctuation in area or number of subpopulations
- iii) high vulnerability to either intrinsic or extrinsic factors
- iv) a decrease (observed, inferred or projected) in any one of the following:
 - area of distribution
 - area of habitat
 - number of subpopulations
 - number of individuals
 - quality of habitat
 - recruitment

C. Declining Wild Population

Marked decline in the number of individuals in the wild which has been either:

historic decline to 5%-30% (5% - 20% for commercially exploited aquatic species) of the baseline population; recent rate of decline 50% or more in last 10 years or 3 generations

- i) observed as ongoing or having occurred in the past; or
- ii) inferred or projected on the basis of any one of the following:
 - decrease in area of habitat
 - decrease in quality of habitat
 - levels/patterns of exploitation
 - high vulnerability to either intrinsic or extrinsic factors
 - decreasing recruitment

CRITERIA FOR THE INCLUSION OF SPECIES IN APPENDIX II

In accordance with Article II, Paragraph 2(a)

Species should be included in Appendix II when at least one of the following criteria is met

A. Regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future

B. Regulation of trade in the species is required to ensure harvesting of specimens from the wild is not reducing wild populations to a level at which its survival might be threatened by continued harvesting or other influences.

In Accordance with Article II, Paragraph 2(b)

Species should be included in Appendix II if it satisfies one of the following criteria

A. The specimens of the species traded resemble specimens of a species included in Appendix II or Appendix I, such that enforcement officers are unlikely to be able to distinguish between them.

B. There are compelling reasons other than those given above in criterion A to ensure that effective control of trade in currently listed species is achieved.

Annex 2.1 Summary of the IUCN Red List Categories and Criteria Version 2.3 (IUCN, 1994)

Use any of the A-E criteria

	Critically Endangered	Endangered	Vulnerable
A. Population Reduction in 10 years or 3 generations at least: Using either 1 or 2	80%	50%	20%
(1) Population reduction observed, estimated, inferred, or suspected in the past, based on any of the following:			
a) direct observation			
b) an index of abundance appropriate for the taxon			
c) a decline in area of occupancy, extent of occurrence and/or quality of habitat			
d) actual or potential levels of exploitation			
e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites			
(2) Population decline projected or suspected to be met in the future based on b) to e) under (1)			
B. Geographic range in the form of one of the following:			
Extent of occurrence	$<100\text{km}^2$	$<5000\text{km}^2$	$<20\,000\text{km}^2$
Area of occupancy	$<10\text{km}^2$	$<500\text{km}^2$	$<2000\text{km}^2$
And 2 of the following 3:			
(1) Severely fragmented:(isolated subpopulations with a reduced probability of recolonisation, once extinct) OR known to exist at # locations	# = 1	# < 5	# < 10
(2) Continuing decline observed, inferred or projected at any rate in any of the following:			
a) extent of occurrence			
b) area of occupancy			
c) area, extent and/or quality of habitat			
d) number of locations or subpopulations			
e) number of mature individuals			

(B continued)

	Critically Endangered	Endangered	Vulnerable
(3) Extreme fluctuations in any of the following: a) extent of occurrence b) area of occupancy c) number of locations or subpopulations d) number of mature individuals	>1order/mag	>1order/mag	>1order/mag
C. Small Population Size and Decline Number of mature individuals	< 250	< 2500	< 10 000
AND either C1 or C2: (1) A rapid continuing decline of at least	25% in 3 years or 1 generation	20% in 5 years or 2 generations	10% in 10 years or 3 generation
(2) A continuing decline observed, projected, or inferred at any rate in numbers of mature individuals AND (a) or (b): a) population severely fragmented or b) # of mature individuals in each subpopulation	< 50	< 250	< 1000
D. Very Small or Restricted population Either: (1) # of mature individuals OR (2) population is susceptible	< 50 (not applicable)	< 250 (not applicable)	< 1000 area of occupancy <100km ² or # of locations < 5
E. Quantitative analysis Indicating the probability of extinction in the wild to be at least	50% in 10 years or 3 generations	20% in 20 years or 5 generations	10% in 100 years

Annex 2.2 Summary of the IUCN Red List Categories and Criteria version 3.1 (IUCN, 2001)

Use any of the A-E criteria

	Critically Endangered	Endangered	Vulnerable
A. Population Reduction in 10 years or 3 generations at least:			
A1	90%	70%	50%
A2, A3, A4	80%	50%	20%

- (1) Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible AND understood AND have ceased, based on and specifying any of the following:
- a) direct observation
 - b) an index of abundance appropriate for the taxon
 - c) a decline in area of occupancy, extent of occurrence and/or quality of habitat
 - d) actual or potential levels of exploitation
 - e) the effects of introduced taxa, hybridisation, pathogens, pollutants, competitors or parasites
- (2) Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction may NOT have ceased OR may not be understood OR may not be reversible, based on (a) and (e) under (1)
- (3) Population reduction projected or suspected to be met in the future (up to a maximum of 100 years) based on (b) to (e) under (1)
- (4) Population reduction observed, estimated, inferred, projected or suspected (up to a maximum of 100 years) where the time period must include both the past and the future, and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible, based on (a) and (e) under (1)

B. Geographic range in the form of either B1 (extent or occurrence) AND/OR B2 (area or occupancy)

B1 Extent of occurrence	$<100\text{km}^2$	$<5000\text{km}^2$	$<20\,000\text{km}^2$
B2 Area of occupancy	$<10\text{km}^2$	$<500\text{km}^2$	$<2000\text{km}^2$

AND at least 2 of the following:

- (a) Severely fragmented, OR: # of locations = $1 < 5 < 10$
- (b) Continuing decline in any of the following:

(B continued)

- i) extent of occurrence
 - ii) area of occupancy
 - iii) area, extent and/or quality of habitat
 - iv) number of locations or subpopulations
 - v) number of mature individuals
- (c) Extreme fluctuations in any of:
- i) extent of occurrence
 - ii) area of occupancy
 - iii) number of locations or subpopulations
 - iv) number of mature individuals

C. Small Population Size and Decline

Number of mature individuals

AND either C1 or C2:

(1) An estimated continuing decline of at least:
(up to a maximum of 100 years)

(2) A continuing decline AND (a) and/or (b):

- (a) i) # of mature individuals in each subpopulation:
- (a) ii) OR % individuals in one subpopulation at least
- (b) extreme fluctuations in the # of mature individuals

D. Very Small or Restricted population

Either:

(1) # of mature individuals

AND/ OR

(2) Restricted area of occupancy

E. Quantitative analysis

Indicating the probability of
extinction in the wild to be at least

**Critically
Endangered**

Endangered

Vulnerable

< 250

25% in 3 years
or 1 generation

< 50

90%

< 50

(not applicable)

50% in 10 years
or 3 generations
(100 years max)

< 2500

20% in 5 years
or 2 generations

< 250

95%

< 250

(not applicable)

20% in 20 years
or 5 generations
(100 years max)

< 10 000

10% in 10 years
or 3 generation

< 1000

100%

< 1000

area of occupancy
< 20 km² or # of
locations < 5

10% in 100 years

Front cover photo credits (left to right):

© Kim Lochen/TRAFFIC

Dorcas Gazelle © WWF-Canon/John E. Newby

Red Coral necklace © Crawford Allan/TRAFFIC

TRAFFIC International is a UK Registered Charity No. 1076722



IUCN - The World Conservation Union, is a global partnership of sovereign states, government agencies and non-governmental organisations. Its seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. **Website:** www.iucn.org



The Species Survival Commission (SSC) is the largest of IUCN's six volunteer commissions with a global membership of 7000 experts. As the world's largest source of species conservation information, SSC advises IUCN and its members on the technical and scientific aspects of species conservation and is dedicated to securing a future for biodiversity. **Website:** www.iucn.org/themes/ssc



TRAFFIC, the wildlife trade monitoring network, works to ensure that wildlife trade is not a threat to the conservation of nature. TRAFFIC is a joint programme of IUCN - The World Conservation Union and WWF, the world conservation organization. **Website:** www.traffic.org

The IUCN/TRAFFIC Analyses of the Proposals to Amend the CITES Appendices at the 14th Meeting of the Conference of the Parties
www.iucn.org/themes/ssc/our_work/wildlife_trade/citescop14/cop14analyses.htm

Summaries of the IUCN/TRAFFIC Analyses of the Proposals to Amend the CITES Appendices at the 14th Meeting of the Conference of the Parties
www.iucn.org/themes/ssc/our_work/wildlife_trade/citescop14/cop14analyses.htm

TRAFFIC Recommendations on the Proposals to Amend the CITES Appendices at the 14th Meeting of the Conference of the Parties
www.traffic.org/cop14/recommendations.htm