

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



Twentieth meeting of the Animals Committee  
Johannesburg (South Africa), 29 March-2 April 2004

Review of the criteria for amendment of Appendices I and II

REPORT OF THE DRAFTING GROUP

**Participants in the drafting group**

The United States of America and the European Commission (Co-Chairs);

Observers from Parties: Chile, China, Japan, Mexico, New Zealand, South Africa, Spain, the United Kingdom, Zimbabwe;

Observer from United Nations bodies: Food and Agriculture Organization of the United Nations;

Observers from inter-governmental and non-governmental organizations: IUCN – The World Conservation Union, Defenders of Wildlife, International Wildlife Coalition, IWMC-World Conservation Trust, WWF International; and

The Chairman of the Plants Committee

**Terms of reference**

**Summary of the discussions and recommendations**

The drafting group used as a base document, AC20 Doc. 9.2 (Rev. 1) and amended the Annex of that document as shown below.



~~AC20 Doc. 9.2 (Rev. 1)~~  
~~Annex~~

DRAFT RESOLUTION OF THE CONFERENCE OF THE PARTIES

Proposed revision of Resolution Conf. 9.24 (Rev. CoP12)

**Criteria for amendment of Appendices I and II**

RECALLING that Resolution Conf. 9.24, adopted by the Conference of the Parties at its ninth meeting (Fort Lauderdale, 1994) recommended that the text and the annexes of this Resolution be fully reviewed before the 12th meeting of the Conference of the Parties with regard to the scientific validity of the criteria, definitions, notes and guidelines and their applicability to different groups of organisms;

RECALLING that the Conference of the Parties at its 12th meeting (Santiago, 2002), approved procedures for this review, laid down in Decision 12.97;

CONSIDERING the fundamental principles in paragraphs 1 and 2 of Article II of the Convention, which specify the species to be included in Appendices I and II;

RECOGNIZING that to qualify for inclusion in Appendix I a species must meet biological and trade criteria;

RECALLING that Article II, paragraph 2(a), provides for the inclusion of species which may become threatened with extinction in Appendix II, in order to avoid utilization incompatible with their survival;

RECOGNIZING that for the proper implementation of this provision it is necessary to adopt appropriate criteria, considering both biological and trade factors;

RECALLING that paragraph 2(b) of Article II provides only for the inclusion in Appendix II of species which must be subject to regulation in order that trade in specimens of certain species included in Appendix II in accordance with Article II, paragraph 2(a), may be brought under effective control;

CONSIDERING, however, that this provision should also apply where there is a need to bring under effective control trade in specimens of species included in Appendix I;

RECOGNIZING that the range States of a species subject to an amendment proposal should be consulted by the proponent, or on its behalf by the Secretariat, in accordance with the relevant Resolutions of the Conference of the Parties, and that all Parties shall be consulted by the Secretariat in accordance with Article XV, paragraph 1(a), of the Convention;

RECOGNIZING further that the Secretariat, in accordance with the same Article, shall consult intergovernmental bodies having a function in relation to marine species;

CONSIDERING the Secretariat should also consult other intergovernmental bodies having a function in relation to any species subject to a proposal for amendment;

RECALLING that the international trade in all wild fauna and flora is under the purview of the Convention;

EMPHASIZING the importance of Resolution Conf. 3.4, adopted at the third meeting of the Conference of the Parties (New Delhi, 1981), regarding the need to provide to developing countries technical assistance in matters relating to the Convention, and specifically in the application of the criteria for amendment of Appendices I and II;

NOTING the objective to ensure that decisions to amend the Convention's Appendices are founded on sound and relevant scientific information, take into account socio-economic factors, and meet agreed biological and trade criteria for such amendments;

RECOGNIZING the importance of the application of Rio Principle 15, the Precautionary Approach, in cases of uncertainty;

#### THE CONFERENCE OF THE PARTIES TO THE CONVENTION

ADOPTS the following Annexes as an integral part of this Resolution:

- Annex 1: Biological criteria for Appendix I;
- Annex 2a: Criteria for the inclusion of species in Appendix II in accordance with Article II, paragraph 2(a), of the Convention;
- Annex 2b: Criteria for the inclusion of species in Appendix II in accordance with Article II, paragraph 2(b), of the Convention;
- Annex 3: Special cases;
- Annex 4: Precautionary measures;
- Annex 5: Definitions, explanations and guidelines; and
- Annex 6: Format for proposals to amend the Appendices;

RESOLVES, that when considering proposals to amend Appendix I or II, the Parties shall, by virtue of the precautionary approach and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species;

RESOLVES that, when considering proposals to amend Appendices I and II, the following applies:

- a) species that are or may be affected by trade should be included in Appendix I in accordance with Article II, paragraph 1, if they meet at least one of the biological criteria listed in Annex 1;
- b) species should be included in Appendix II under the provisions of Article II, paragraph 2 (a), if they satisfy the criteria listed in Annex 2a;
- c) species should be included in Appendix II under the provisions of Article II, paragraph 2 (b), if they satisfy the criteria listed in Annex 2b;
- d) species should be included in more than one Appendix at the same time, and higher taxa should be included in the Appendices, only if the species or higher taxa concerned satisfy the relevant criteria listed in Annex 3;
- e) species of which all specimens in trade have been bred in captivity or artificially propagated should not be included in the Appendices if there is negligible probability of trade taking place in specimens of wild origin;
- f) species included in Appendix I for which sufficient data are available to demonstrate that they do not meet the criteria listed in Annex 1 should be transferred to Appendix II only in accordance with the relevant precautionary measures listed in Annex 4;
- g) species included in Appendix II in accordance with Article II, paragraph 2(a), that do not meet the criteria listed in Annex 2a, should be deleted only in accordance with the relevant precautionary measures listed in Annex 4; and species included in accordance with Article II, paragraph 2(b), because they look like the species subject to the deletion, or for a related reason, should also be deleted only in accordance with the relevant precautionary measures;

h) the views, if any, of intergovernmental bodies with competence for the management of the species concerned should be taken into account;

RESOLVES that proposals to amend Appendices I and II should be based on the best information available, and when appropriate, presented in the format in Annex 6;

ENCOURAGES proponents that submit proposals to transfer species to Appendix I or to establish zero export quotas for species under review in accordance with the provisions of the Significant Trade Review process, to take account of the applicable findings of that review.

RESOLVES that annotations to proposals to amend Appendix I or Appendix II should be made in accordance with the applicable Resolutions of the Conference of the Parties, be specific and accurate as to affected parts and derivatives and should, to the extent possible, be harmonized with existing annotations;

ENCOURAGES Parties, when sufficient relevant biological data are available, to include a quantitative evaluation in the supporting statement of the amendment proposal;

RESOLVES that, to monitor the effectiveness of protection offered by the Convention, the status of species included in Appendices I and II should be regularly reviewed by the range States and proponents, in collaboration with the Animals Committee or the Plants Committee, subject to the availability of funds;

URGES Parties and co-operating organizations to provide financial and technical assistance, when requested, in the preparation of proposals to amend the Appendices, the development of management programmes, and the review of the effectiveness of the inclusion of species in the Appendices. Parties should be open to using other available international mechanisms and instruments for these purposes in the broader context of biodiversity; and

REPEALS Resolutions Conf. 9.24 (Rev. CoP12) (Santiago, 2002) - Criteria for Amendment of Appendices I and II.

## Annex 1

### Biological criteria for Appendix I

The following criteria must be read in conjunction with the definitions, explanations and guidelines listed in Annex 5, including the footnote with respect to application of the definition of “decline” for commercially exploited aquatic species.

A species is considered to be threatened with extinction if it meets, or is likely to meet, **at least one** of the following criteria.

A. The wild population is small, and is characterized by **at least one** of the following:

- i) an observed, inferred or projected decline in the number of individuals or the area and quality of habitat; or
- ii) a small number of sub-populations or each sub-population being very small; or
- iii) a majority of individuals, ~~during one or more life-history phases,~~ being concentrated [geographically] during one or more life-history phases in one sub-population; or
- iv) large short-term fluctuations in ~~the number of individuals required to measure the appropriate to measuring~~ population size ~~for the species concerned;~~ or
- v) a high vulnerability ~~due to the species' particular susceptibility to either intrinsic or extrinsic factors biology or behaviour (including migration).~~

B. The wild population has a restricted area of distribution and is characterized by **at least one** of the following:

- i) fragmentation or occurrence at very few locations; or
- ii) large fluctuations in the area of distribution or the number of sub-populations; or
- iii) a high vulnerability to either intrinsic or extrinsic factors; or

~~a high vulnerability due to the species' particular susceptibility to either intrinsic or extrinsic factors biology or behaviour (including migration); or~~

- iv) an observed, inferred or projected decrease in any one of the following:
  - the area of distribution; or
  - the area of habitat; or
  - the number of sub-populations; or
  - the number of individuals; or
  - the quality of habitat; or
  - the recruitment.

C. A marked decline in the population size in the wild, which has been **either**:

- i) observed as ongoing or as having occurred in the past (but with a potential to resume); or
- ii) inferred or projected on the basis of any one of the following:
  - a decrease in area of habitat; or
  - a decrease in quality of habitat; or
  - levels or patterns of exploitation; or

- ~~a high vulnerability to either intrinsic or extrinsic factors~~ ~~threats from extrinsic human-induced factors such as competition/predation by introduced species or the effects of hybridization, toxins and pollutants, as well as naturally occurring stochastic events;~~ or
- a decreasing recruitment.

D. The status of the species is such that if the species is not included in Appendix I, it is likely to satisfy one or more of the above criteria within a period of five years. [The working Group expressed differing views on the retention of this criterion, but it is retained here pending a final decision by the CoP]

Annex 2a

Criteria for the inclusion of species in Appendix II  
in accordance with Article II, paragraph 2(a), of the Convention

The following criteria must be read in conjunction with the definitions, explanations and guidelines listed in Annex 5, including the footnote with respect to application of the definition of “decline” for commercially exploited aquatic species.

A species should be included in Appendix II when, on the basis of available trade data and information on the status and trends of the wild population(s), **at least one** of the following criteria is met:

- A. It is known, or can be inferred or projected, that the regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future; or
- B. It is known, or can be inferred or projected, that regulation of trade in the species is required to ensure that the harvest of specimens from the wild is sustainable and is not reducing the wild population to a level at which its survival would be threatened by continued harvesting or other influences.~~harvesting of specimens from the wild for international trade has, or may have, a detrimental impact on the species by either~~
  - ~~i) exceeding, over an extended period, the level that can be continued in perpetuity; or~~
  - ~~ii) reducing it to a population level at which its survival would be threatened by other influences.~~

Annex 2b

Criteria for the inclusion of species in Appendix II  
in accordance with Article II, paragraph 2(b), of the Convention

Species may be included in Appendix II in accordance with Article II, paragraph 2(b), if **either one** of the following criteria is met:

- A. The specimens of the species in the form in which they are traded resemble specimens of a species included in Appendix II under the provisions of Article II, paragraph 2 (a), or in Appendix I, such that enforcement officers who encounter specimens of CITES-listed species a non-expert, with reasonable effort, is-are unlikely to be able to distinguish between them; or
- B. There are compelling reasons other than those given in criterion A above to ensure that effective control of trade in currently listed species is achieved.

## Annex 3

### Special cases

#### ***Split-listing***

Listing of a species in more than one Appendix should be avoided in general in view of the enforcement problems it creates.

When split-listing does occur, this should generally be on the basis of national or regional populations, rather than subspecies. Split-listings that place some populations of a species in the Appendices, and the rest outside the Appendices, should normally not be permitted.

For species outside the jurisdiction of any State, listing in the Appendices should use the terms used in other relevant international agreements, if any, to define the population. If no such international agreement exists, then the Appendices should define the population by region or by geographic coordinates.

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.

#### ***Higher taxa***

If all species of a higher taxon are included in Appendix I or II, they should be included under the name of the higher taxon. If some species in a higher taxon are included in Appendix I or II and all the rest in the other Appendix, the latter species should be included under the name of the higher taxon, with an appropriate annotation made in accordance with the provisions of the relevant resolutions on the use of annotations in the Appendices.

Parties contemplating preparing a proposal to transfer an individual plant species from a higher-taxon listing in Appendix II to a separate listing in Appendix I should consider:

- i) the ease with which it can be propagated artificially;
- ii) the extent to which it is currently available in cultivation from artificially propagated specimens; and
- iii) any practical problems in identifying the species, particularly in the form in which it may be traded.

## Annex 4

### Precautionary measures

When considering proposals to amend Appendix I or II, the Parties shall, by virtue of the precautionary approach and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species.

#### A.

1. 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.
  2. Species included in Appendix I should only be transferred to Appendix II if they do not satisfy the relevant criteria in Annex 1 and only when one of the following precautionary safeguards is met:
    - a) 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; or
    - b) the species is likely to be in demand for trade, but its management is such that the Conference of the Parties is satisfied with:
      - i) implementation by the range States of the requirements of the Convention, in particular Article IV; and
      - ii) appropriate enforcement controls and compliance with the requirements of the Convention; or
    - c) 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; or
    - d) a ranching proposal is submitted consistent with the applicable Resolutions of the Conference of the Parties and is approved.
  3. No proposal for transfer of a species from Appendix I to Appendix II shall be considered from a Party that has entered a reservation for the species in question, unless that Party agrees to remove the reservation within 90 days of the adoption of the amendment.
  4. No species should be deleted from Appendix II if such deletion would be likely to result in it qualifying for inclusion in the Appendices in the near future.
  5. No species should be deleted from Appendix II if, within the last two intervals between meetings of the Conference of the Parties, it has been subject to a recommendation under the provisions of the Significant Trade Review process to improve its conservation status.
- #### B.
1. The following review procedures shall apply when a species is transferred to Appendix II pursuant to paragraph A.2.c) above.
    1. Where the Plants Committee, the Animals Committee or a Party becomes aware of problems in compliance with the management measures and export quotas of another Party, the Secretariat shall be informed and, if the Secretariat fails to resolve the matter satisfactorily, it shall inform the Standing Committee which may, after consultation with the Party concerned, recommend to all Parties that they suspend trade with that Party in specimens of CITES-listed species, and/or request the Depositary Government to prepare a proposal to transfer the population back to Appendix I.

2. If, on review of a quota and its supporting management measures, the Animals or Plants Committee encounters any problems with compliance or potential detriment to a species, the relevant Committee shall request the Depositary Government to prepare a proposal for appropriate remedial action.
- C. With regard to quotas established pursuant to paragraph A.2.c) above.
1. If a Party wishes to renew, amend or delete such a quota it shall submit an appropriate proposal for consideration at the next meeting of the Conference of the Parties;
  2. When a quota has been established for a limited period of time, after that period the quota will become zero until a new quota has been established.
- D. Species that are regarded as possibly extinct should not be deleted from Appendix I if they may be affected by trade in the event of their rediscovery; these species should be annotated in the Appendices as "p.e." (i.e., possibly extinct).

Definitions, explanations and guidelines

NOTE: Where numerical guidelines are cited in this Annex, they are presented only as examples, since it is impossible to give numerical values that are applicable to all taxa because of differences in their biology.

***Species***

In Article I of the Convention the term species is defined as “any species, subspecies or geographically separate population thereof”.

Species and subspecies refer to the biological concept of a species, and do not require any further definition.

The two terms also cover varieties.

“Geographically separate population” refers to parts of a species or a subspecies within particular geographical boundaries. This can also refer to populations or subpopulations, or, for the sake of convenience in certain cases, to ‘stocks’ as the term is understood in fisheries management.

Until now, the Conference of the Parties has interpreted ‘geographically separate populations’ as populations delimited by geopolitical boundaries, whereas they have rarely used the other option of geographical boundaries.

***Affected by trade***

A species "is or may be affected by trade" if:

1. it is known to be in trade (using the definition of ‘trade’ in Article I of the Convention), and that trade has or may have a detrimental impact on the status of the species; or
2. it is suspected to be in trade, or there is demonstrable potential international demand for the species, that may be detrimental to its survival in the wild.

***Area of distribution***

Area of distribution of a species is defined as the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred or projected sites of occurrence, excluding cases of vagrancy and introductions outside its natural range (though inferring and projecting area of occurrence should be undertaken carefully, and in a precautionary manner). The area within the imaginary boundary should, however, exclude significant areas where the species does not occur, and so in defining an area of distribution, account should be taken of discontinuities or disjunctions in the spatial distribution of species. This encompasses the concept of area of occupancy. For migratory species, the area of distribution is the smallest area essential at any stage for the survival of that species (e.g., colonial nesting sites, feeding sites for migratory taxa, etc.). The determination that a species has a restricted area of distribution is taxon-specific and should take into account considerations such as habitat specificity, population density and endemism. For some species for which data were available to make an estimate, a figure of less than 10,000 km<sup>2</sup> has been found to be an appropriate guideline (not a threshold) of what constitutes a restricted area of distribution. However, this figure is presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.

***Inferred or projected***

Projection is a statistical concept that in scientific research connotes that measurements have been made and extrapolated in time towards the future. On the other hand inference connotes measurement using indirect evidence.

## *Decline*

A decline is a reduction in the abundance, or area of distribution, or area of habitat, of a species. The assessment of decline by reference to area of habitat may be more appropriate where there are intrinsic difficulties in measuring the number of individuals.

Decline can be expressed in two different ways: (i) the overall long-term extent of decline or (ii) the recent rate of decline. The long-term extent of decline is the total estimated or inferred percentage reduction from a baseline level of abundance or area of distribution. The recent rate of decline is the percentage change in abundance or area of distribution over a recent time period. The data used to estimate or infer a baseline for extent of decline should extend as far back into the past as possible.

The judgement that a decline is marked is taxon-specific and can be justified by a number of considerations. For example, the population dynamics of a related taxonomic group.

**A general guideline for a marked historical extent of decline is a percentage decline to 5%-30% of the baseline, depending on the reproductive biology and productivity of the species. Productivity is the maximum percentage growth rate of a population. It is a complex function of reproductive biology, fecundity, individual growth rates, natural mortality, age at maturity and longevity. More productive species tend to have high fecundity, rapid individual growth rates and high turnover of generations.**

The extremes of 5% and 30% will be applicable to only a relatively small number of species, but some species may even fall outside of these extremes. However, both these figures are presented only as examples, since it is impossible to give numerical values that are applicable to all taxa because of differences in their biology (\*see footnote with respect to application of decline to commercially exploited aquatic species).

A general guideline for a marked recent rate of decline is a percentage decline of 50% or more in the last 10 years or three generations, whichever is the longer. If the population is small, a percentage

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\* Application of decline for commercially exploited aquatic species:

In marine and large freshwater bodies, a narrower range of 5-20% is deemed to be more appropriate in most cases, with a range of 5-10% being applicable for species with high productivity, 10-15% for species with medium productivity and 15-20% for species with low productivity. Nevertheless some species may fall outside this range. Low productivity is correlated with low mortality rate and high productivity with high mortality. One possible guideline for indexing productivity is the natural mortality rate, with the range 0.2 – 0.5 per year indicating medium productivity.

In general, historical extent of decline should be the primary criterion for consideration of listing in Appendix I. However, in circumstances where information to estimate extent-of-decline is limited, rate-of-decline over a recent period could itself still provide some information on extent-of-decline.

For listing in Appendix II, the historical extent of decline and the recent rate of decline should be considered in conjunction with one another. The higher the historical extent of decline, and the lower the productivity of the species, the more important a given recent rate of decline is.

A general guideline for a marked recent rate of decline is the rate of decline that would drive a population down within approximately a 10-year period from the current population level to the historical extent of decline guideline (i.e. 5-20% of baseline for exploited fish species). There should rarely be a need for concern for populations that have exhibited an historical extent of decline of less than 50%, unless the recent rate of decline has been extremely high.

Even if a population is not declining appreciably, it could be considered for listing in Appendix II if it is near the extent-of-decline guidelines recommended above for consideration for Appendix I-listing. A range of between 5% and 10% above the relevant extent-of-decline might be considered as a definition of 'near', taking due account of the productivity of the species.

A recent rate-of-decline is important only if it is still occurring, or may resume, and is projected to lead to the species reaching the applicable point for that species in the Appendix I extent-of-decline guidelines within approximately a 10-year period. Otherwise the overall extent-of-decline is what is important. When sufficient data are available, the recent rate-of-decline should be calculated over approximately a 10-year period. If fewer data are available, annual rates over a shorter period could be used. If there is evidence of a change in the trend, greater weight should be given to the more recent consistent trend. In most cases, listing would only be considered if the decline is projected to continue.

In considering the percentages indicated above, account needs to be taken of taxon- and case-specific biological and other factors that are likely to affect extinction risk. Depending on the biology, patterns of exploitation and area of distribution of the taxon, vulnerability factors (as listed in this annex) may increase this risk, whereas mitigating factors (e.g. large absolute numbers or refugia) may reduce it.

decline of 20% or more in the last 5 years or 2 generations (whichever is the longer) may be more appropriate. However, these figures are presented only as examples, since it is impossible to give numerical values that are applicable to all taxa because of differences in their biology.

The historical extent of decline and the recent rate of decline should be considered in conjunction with one another. In general, the higher the historical extent of decline, and the lower the productivity of the species, the more important a given recent rate of decline is.

In estimating or inferring the historical extent of decline or the recent rate of decline, all relevant data should be taken into account. A decline need not necessarily be ongoing. If data are available only for a short period and the extent or rate of decline based on these data are cause for concern, the guidelines above (extrapolated as necessary or relevant) should still apply. However, natural fluctuations should not normally count as part of a decline, but an observed decline should not necessarily be considered part of a natural fluctuation unless there is evidence for this. A decline that is the result of legal activities carried out pursuant to a scientifically based harvesting programme that reduces the population to a planned level, not detrimental to the survival of the species, would not normally beis not covered by the term "decline".

~~The assessment of decline by reference to area of habitat may be more appropriate where there are intrinsic difficulties in measuring the number of individuals.~~

### ***Extended period***

~~The meaning of the term extended period will vary according to the biological characteristics of the species. Selection of the period will depend upon the observed pattern of natural fluctuations in the abundance of the species and on whether the number of specimens removed from the wild is consistent with a sustainable harvesting programme that is based on these natural fluctuations.~~

### ***Fluctuations***

Fluctuations in population size or area of distribution are considered large when the population size or area in question varies widely, rapidly or frequently. ~~The judgement that there are large short-term fluctuations in the number of individuals is taxon specific. For instance, it depends on the generation length of the taxon. Where data exist to make an estimate, one order of magnitude has been found to be an appropriate guideline (not a threshold) for population size. Similarly, fluctuations can be considered 'short term' if the period of fluctuation is about two years. However, this figure is presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.~~

### ***Fragmentation***

Fragmentation refers to the case where most individuals within a taxon are found in small and relatively isolated sub-populations, which increases the probability that these small sub-populations will become extinct and the opportunities for re-establishment are limited. ~~For some species in trade where data exist to make an estimate, an area of distribution of 500 km<sup>2</sup> or less for each subpopulation has been found to be an appropriate guideline (not a threshold) of what constitutes fragmentation. However, this figure is presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.~~

### ***Generation length***

Generation length is the average age of parents of the current cohort (i.e., newborn individuals in the population). Generation length therefore reflects the turnover rate of breeding individuals in a population. Generation length is greater than the age at first breeding and less than the age of the oldest breeding individual, except in taxa that breed only once. Where generation length varies under threat, the more natural (i.e., pre-disturbance) generation length should be used.

### Inferred or projected

This refers to estimations using indirect or direct methods. Inferences may be made on the basis either of direct measurements or from indirect evidence. Projection involves extrapolation to infer likely future values.

Projection is a statistical concept that in scientific research connotes that measurements have been made and extrapolated in time towards the future. On the other hand inference connotes measurement using indirect evidence.

### *Near future*

Refers to a time period in which it can be projected or inferred that a species would satisfy one (or more) of the criteria in Annex I unless it is included in Appendix II. ~~Clearly, this period will be taxon- and case- specific but should be greater than 5 years [and less than 20 years]\*. However, 5-10 years may be considered a useful guideline. However, this figure is presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.~~

### *Population issues*

#### *Population*

Population refers to the total number of individuals of the species (as "species" is defined in Article 1 of the Convention and in this Annex). ~~(to be considered in light of any decision arising from consideration of Doc. 12.59).~~

#### Wild population

Wild population refers to the total number of free-living individuals of the species within its area of distribution, as defined in this annex.

#### *Sub-population*

Sub-populations are defined as geographically or otherwise distinct groups in the population between which there is limited genetic exchange.

#### *Population size*

When providing details on the size of a population or sub-population, it should be made clear whether the information presented relates to an estimate of the total number of individuals or to the effective population size (i.e., individuals capable of reproduction, excluding individuals that are environmentally and behaviourally or otherwise reproductively suppressed in the wild) or to another appropriate measure, index or component of the population.

In the case of species biologically dependent on other species for all or part of their life cycles, biologically appropriate values for the host or co-dependent species should be chosen.

#### *Small wild population*

The judgement that a wild population is small is taxon-specific and can be justified by a number of considerations. For example, the population of a related taxonomic group. For some low productivity species where data exist to make an estimate, a figure of less than 5,000 individuals has been found to be an appropriate guideline (not a threshold) of what constitutes a small wild population. but the number could be higher for higher productivity species. However, this figure is

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\* Final agreement on an outer limiting figure was not reached.

presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.

#### *Very small wild sub-population*

The judgement that a wild sub-population is very small is taxon-specific. For some species where data exist to make an estimate, a figure of less than 500 individuals has been found to be an appropriate guideline (not a threshold) of what constitutes a very small wild sub-population. However, this figure is presented only as an example, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where this numerical guideline does not apply.

#### ***Possibly extinct***

A species is possibly extinct when exhaustive surveys in known and/or suspected habitat, and at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. Before a species can be declared possibly extinct, surveys should take place over a time-frame appropriate to the species' life cycle and life form.

#### ***Recruitment***

Recruitment is the total number of individuals added to any particular demographic class of a population by either sexual or asexual reproduction.

#### ***Threatened with extinction***

Threatened with extinction is defined by Annex 1. The vulnerability of a species to threats of extinction depends on its population demographics, biological characteristics (such as body size, trophic level, life cycle, breeding structure or social structure requirements for successful reproduction), and vulnerability due to aggregating habits, natural fluctuations in population size, and/or residency/migratory patterns. This makes it impossible to give numerical threshold values for population size or area of distribution that are applicable to all taxa.

#### ***Vulnerability***

Vulnerability can be defined as the susceptibility to intrinsic or external effects which increase the risk of extinction (even when mitigating factors are taken into account). There are a number of taxon- or case-specific biological and other factors that may affect the extinction risk associated with a given percentage decline, small population size or restricted area of distribution. These can be, but are not limited to, aspects of any of the following:

#### INTRINSIC FACTORS:

- Life history (e.g., low fecundity, slow growth rate of the individual, high age at first maturity, long generation time)
- Low absolute numbers or biomass or restricted area of distribution
- Population structure (age/size structure, sex ratio)
- Behavioural factors (e.g., social structure, migration, aggregating behaviour)
- Density (for sessile or semi-sessile species)
- Specialized niche requirements (e.g., diet, habitat)
- Species associations such as symbiosis and other forms of co-dependency
- Reduced genetic diversity
- Depensation (prone to continuing decline even in the absence of exploitation)
- Endemism
- Seed dispersal mechanism
- Specialized pollinators

#### EXTRINSIC FACTORS

- Selectivity of removals (that may compromise recruitment)

- Threats from alien ~~exotic~~invasive species (hybridisation, disease transmission, depredation, etc.)
- Habitat degradation (contamination, soil erosion, alteration by alien invasive species, etc.)
- Habitat loss/destruction
- Habitat fragmentation
- Harsh environmental conditions
- Threats from disease ~~or invasive species~~
- Rapid environmental change (e.g., climate regime shifts)
- Stochastic events.

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- Selectivity of removals (that may compromise recruitment)

## Annex 6

### Format for proposals to amend the Appendices

NOTE: Annex 6 needs to be made consistent with the rest of the document.

The following provides information and instructions for the submission of a proposal to amend the Appendices and the appropriate supporting statement. Proponents should be guided by the need to provide to the Conference of the Parties sufficient information, of sufficient quality and in sufficient detail, to allow it to judge the proposal against the criteria established for the proposed action. Analogy with related taxonomic groups or species that are ecologically similar may be used to guide judgements. Parties are reminded that proposals should normally be limited to 12 pages (exclusive of references cited). If the proposal is longer than 12 pages, the proponent should provide translations into the working languages of the Convention. This means that the relevant published and unpublished sources of information should be used, although for some species the amount of scientific information will be limited. Where research has been undertaken specifically to obtain information for the proposal, it should be presented in sufficient detail to be assessed by the Parties. Furthermore, this means that it may not be possible to address all elements of the proposal format.

#### A. Proposal

The proponent should indicate the specific amendment to the Appendices and any relevant annotations or qualifications. The proponent should justify the basis on which the species meets the relevant criteria.

- Inclusion in Appendix I or transfer from Appendix II to Appendix I. Specify which of the criteria in Annex 1 of the Resolution are satisfied
- Inclusion in Appendix II
  - in accordance with Article II 2(a)
    - specify which of the criteria in Annex 2a of the Resolution are satisfied
  - in accordance with Article II 2(b)
    - for reasons of look-alike problems (criterion A of Annex 2b). In this case, the names of the similar species already included in the Appendices should be given in section C11, "Additional remarks"
    - for other reasons (such as those referred to in Annexes 2a, paragraph B and/or 3 to this Resolution)
- Transfer from Appendix I to Appendix II in accordance with a precautionary measure specified in Annex 4 to this Resolution. Specify which of the criteria in Annex 2 of this Resolution are satisfied; specify why the criteria in Annex 1 of this Resolution are no longer satisfied; specify which of the measures in Annex 4 of this Resolution are satisfied or implemented
- Deletion from Appendix II. Specify why the criteria in Annex 2 of this Resolution are not satisfied
- Other action (provide explanation) (e.g., amendment of a quota)

#### Annotations

If a specific annotation to the listing in the Appendices is proposed, the proponent should:

- ensure that the proposed annotation is in compliance with the applicable Resolution;
- indicate the practical intent of the annotation;

- harmonize new annotations with existing annotations; and
- be specific and accurate as to affected parts and derivatives.

## B. Proponent

The proponent may only be a Party to the Convention, in accordance with Article XV of the Convention.

## C. Supporting statement

### 1. Taxonomy

The proponent should provide sufficient information to allow the Conference of the Parties to identify clearly the taxon that is the subject of the proposal.

#### 1.1 Class

#### 1.2 Order

#### 1.3 Family

#### 1.4 Genus, species or subspecies, including author and year

If the species concerned is included in one of the standard lists of names or taxonomic references adopted by the Conference of the Parties, the name provided by that reference should be entered here. If the species concerned is not included in one of the adopted standard references, the proponent should provide references as to the source of the name used.

#### 1.5 Scientific synonyms

The proponent should provide information on other scientific names or synonyms under which the species concerned may be known currently, especially if these names are used in the trade in the species.

#### 1.6 Common names (including, where appropriate, trade names)

#### 1.7 Code numbers

If the species concerned is already included in the Appendices, refer to the code numbers in the CITES Identification Manual.

### 2. Overview

Provide a brief overview of key elements of the proposal. Parties should cite key sections of the supporting statement. Also explain how the species complies with the criteria in this Resolution.

### 3. Species characteristics

The information required in this section is a summary of surveys, literature searches, and relevant studies. The references used must be listed in section 12 of the proposal. It is understood that the quality of the information available will vary a lot, but these instructions indicate the type of information that is required. If the proposal relates to a geographically separate population or subspecies, it should consider, where relevant, the biological species in its entirety to provide the appropriate context.

### 3.1 Distribution

Specify the currently known range of the species. If possible, provide information to indicate whether or not the distribution of the species is continuous and, if it is not, indicate to what degree it is fragmented.

### 3.2 Habitat

Specify the types of habitats occupied by the species and, when relevant, the degree of habitat specificity and the extent of each habitat type over the range of the species.

### 3.3 Biological characteristics

Provide a summary of general biological and life history characteristics of the species (e.g., reproduction, recruitment, survival rate, migration, sex ratio, regeneration or reproductive strategies).

### 3.4 Morphological characteristics

Provide a general description of the morphological diagnostic characteristics of the species, including colour, and information on morphological features by which the species can be differentiated from taxonomically closely related species.

### 3.5 Role of the species in its ecosystem

If available, provide information about the role of this species in its ecosystem, and other relevant ecological information, as well as the potential impact of this proposal on that role.

## 4. Status and trends

This section includes qualitative and quantitative information that allow past and present trends to be evaluated pursuant to the criteria. The sources used must be referenced in section 12 of the proposal. It is understood that the quality of the information available will vary. The instructions below indicate the type of information that should be provided if possible. If the proposal relates to a geographically separate population or subspecies, it should consider, when relevant, the biological species in its entirety to provide the appropriate context. If available, the proposal should include any relevant quantitative analyses, stock assessments, etc. The proposal should note whether conclusions are based on observations, inferences or projections.

### 4.1 Habitat trends

Give information on the nature, rate and extent of habitat change (e.g., loss, degradation or modification), noting when applicable the degree of fragmentation and discernable changes in the quality of habitat. Where appropriate, the relationship between habitat and population trends should be described.

### 4.2 Population size

Give an estimate of the current total population or number of individuals differentiated by relevant age classes where possible, or other indices of population abundance, based on the most recently available data. Provide information on the source of the data used. Where appropriate provide the number of sub-populations, and their estimated sizes. Population size may be estimated by reference to population density, having due regard to habitat type and other methodological considerations.

### 4.3 Population structure

Provide basic information on the current structure of the population and any past or current changes over time in that structure (e.g., social structure, population demographics, proportion of mature individuals or sex ratio).

#### 4.4 Population trends

Basic, quantitative and qualitative information, when available, should be provided on current and past trends in the species's abundance (provide sources). The period over which these trends, if any, have been measured should be indicated. If the species naturally undergoes marked fluctuations in population size, information should be provided to demonstrate that the trend transcends natural fluctuations. If generation-time has been used in estimating the trend, state how the generation-time has been estimated. [NOTE: The present wording assumes that Annex 6 applies to uplisting proposals only]

#### 4.5 Geographic trends

Provide information, when available on current and past trends in the species' distribution, indicating the period over which these trends, if any, have been measured. If relevant give data on the degree and periodicity of fluctuations in the area of distribution.

### 5. Threats

Specify the nature, intensity and if possible relative importance of human-induced threats (e.g., habitat loss and/or degradation; over-exploitation; effects of competition/predation by introduced species and effects of hybridization, toxins and pollutants; etc.).

### 6. Utilization and trade

#### 6.1 National utilization

Specify the types and extent of all known uses of the species, indicating trends if possible. Provide details of harvest methods. Indicate the extent to which utilization is from captive-bred, artificially propagated, or wild specimens.

Provide details of any stockpiles known to exist, and the measures that might be taken to dispose of them.

#### 6.2 Legal trade

Quantify the level of international trade, identifying the source of statistics used (e.g., Customs statistics, CITES annual report data, FAO data, industry reports, etc.). Provide justification for inferences made about trade levels. Provide information about the nature of the trade (e.g., primarily for commercial purposes, primarily live specimens, primarily parts and derivatives, primarily of captive-bred or artificially propagated specimens, etc.) and about how the proposed amendment is expected to affect the nature of the trade.

#### 6.3 Parts and derivatives in trade

To the extent possible, list parts and derivatives, including types of products in trade, Customs tariff codes specific to those parts and derivatives, and major importing and exporting countries that trade in those parts and derivatives.

#### 6.4 Illegal trade

To the extent possible, quantify the level of illegal trade, nationally and internationally, and describe its nature. Assess the relative importance of this trade in relation to legal offtake for national use or legal international trade. Provide information on how the proposed amendment is expected to affect the nature of the trade.

#### 6.5 Actual or potential trade impacts

Discuss the importance of current and/or future exploitation for international trade relative to overall use (domestic included) as a threat to the species in question.

## 7. Legal instruments

### 7.1 National

Provide details of legislation relating to the conservation of the species, including its habitat, either specifically (such as endangered-species legislation) or generally (such as legislation on wildlife and accompanying regulations). Indicate the nature of legal protection (i.e. is the species totally protected, or whether harvesting is regulated or controlled). Provide an assessment of the effectiveness of this legislation in ensuring the conservation and/or management of the species.

Provide similar information relating to legislation governing the management of trade in the species in question. Provide an assessment of the effectiveness of this legislation in controlling illegal trade in the species.

### 7.2 International

Provide details of international instruments relating to the species in question, including the nature of the protection afforded by such instruments. Provide an assessment of the effectiveness of these instruments in ensuring the conservation and/or management of the species.

Provide similar information on international instruments relating to the management of trade in the species in question. Provide an assessment of the effectiveness of these instruments in controlling illegal trade in the species.

## 8. Species management

### 8.1 Management measures

Provide details of programmes in place in the range States to manage populations of the species in question (e.g., controlled harvest from the wild, captive breeding or artificial propagation, reintroduction, ranching, quota systems, etc.). Include, where appropriate, details such as planned harvest rates, planned population sizes procedures for the establishment and implementation of quotas, and mechanisms for ensuring that wildlife management advice is taken into account.

Where applicable, provide details of any mechanisms used to ensure a return from utilization of the species in question to conservation and/or management programmes (e.g., pricing schemes, community ownership plans, export tariffs, etc.).

### 8.2 Population monitoring

Provide details of programmes in place to monitor the status of wild populations and the sustainability of offtake from the wild.

### 8.3 Control measures

#### 8.3.1 International

Provide information on measures in place, in addition to CITES, to control the movement of specimens of the species in question across international borders. Include information about marking schemes in place, if any.

#### 8.3.2 Domestic

Provide information on controls in the range States aimed at ensuring a sustainable harvest from the wild of the species in question. Include information on education, compliance and enforcement activities as appropriate and an assessment of the effectiveness of the programmes.

#### 8.4 Captive breeding and artificial propagation

Where applicable, provide details of commercial captive-breeding or artificial propagation operations, including plantations, for the species in question within the country in question, including the size of captive stocks and the production, and the extent to which these operations are either contributing to a conservation programme or meeting a demand that would otherwise be met by specimens from the wild. Discuss any management implications of captive-breeding or artificial propagation programmes. Also provide information on the extent of captive-breeding or artificial propagation outside the country or countries of origin to the extent possible.

#### 8.5 Habitat conservation

Provide information, where available, regarding the number, size and type of protected areas relevant to the habitat of the species, and on habitat conservation programmes outside protected areas.

#### 8.6 Safeguards

In the case of proposals to transfer species from Appendix I to Appendix II or deletion from Appendix II, or proposals involving substantive annotations, provide information on any relevant safeguards.

If the proposed amendment is likely to lead to an increase in trade in the species concerned, explain why this would not result in unsustainable trade in similar species.

### 9. Information on similar species

Give the names of species of which specimens in trade look very similar. Provide details on how they may be distinguished, including, in particular, details on those commodities or parts and derivatives most common in trade, and explain whether or not it is reasonable to expect an informed non-expert to be able to make a firm identification. Provide details on how to resolve potential difficulties in distinguishing specimens of the species proposed for listing from those of similar species, in particular those specimens most common in trade.

### 10. Consultations

Provide details of the consultation undertaken to secure comments on the proposal from the range States of the species, either through direct contact or via the CITES Secretariat. Comments received from each country should be provided. Where comments were sought but not received in sufficient time to enable their inclusion in the supporting statement, this should be noted, as well as the date of the request.

In cases of proposals to transfer Appendix-II species that are subject to actions pursuant to Resolution Conf. 8.9 (Rev.) to Appendix I the proponent should consult the affected range State(s) and, as appropriate, the Animals Committee or Plants Committee. The proponent should state the reasons to justify why the amendment proposal was made. In cases of consultation with Parties via the CITES Secretariat, information from range States and non-range States should be separated.

In the case of species that are also managed through other international agreements or intergovernmental bodies, provide details of the consultations undertaken to obtain the comments of those organizations or bodies, and indicate how those comments have been addressed in the supporting statement. Where comments were sought but not received in sufficient time to enable their inclusion in the supporting statement, this should be noted, as well as the date of the request.

### 11. Additional remarks

### 12. References