

IUCN comments are included in red text.

Criteria for amendment of Appendices I and II

~~RECALLING that the Conference of the Parties at its eighth meeting, held in Kyoto, Japan, in March 1992, was convinced that the criteria adopted at the first meeting of the Conference of the Parties (Berne, 1976) (Resolutions Conf. 1.1 and Conf. 1.2) did not provide an adequate basis for amending the appendices, and directed the Standing Committee to undertake, with the assistance of the Secretariat, a revision of the criteria for amending the appendices (Resolution Conf. 8.20);~~

~~NOTING that this review was carried out in consultation with the Parties and on the basis of initial technical work carried out by IUCN in collaboration with other experts;~~

~~NOTING further that all aspects of this review were addressed by a joint meeting of the Plants and Animals Committees, in association with the Standing Committee, held in Brussels in September 1993;~~

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 that Resolution be fully reviewed before the 12th meeting of the Conference of the Parties;

RECALLING that the Conference of the Parties at its 11th meeting, (Gigiri, 2000), approved procedures for this review, laid down in Decision 11.2;

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 following the procedures recommended by the Conference of the Parties, and that the intergovernmental bodies having a function in relation to that species should be consulted as well;

NOTING the competence of certain intergovernmental organizations in relation to the management of marine species;

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;~~

Explanation: The reference to a general statement in Resolution Conf. 3.4 is not the subject of the matter dealt with in this Resolution and is of little use. It is removed for the sake of conciseness.

~~RECOGNIZING that by virtue of the precautionary principle, in cases of uncertainty, the Parties shall act in the best interest of the conservation of the species when considering proposals for amendment of Appendices I and II;~~

Explanation: This preamble is moved to and incorporated in the first "Resolves" in the operational part of the Resolution, which deals with the same issue and where the precautionary principles are formulated in stronger language. Thereby, the intention of this preamble can be retained and enhanced.

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);
- Annex 2b: Criteria for the inclusion of species in Appendix II in accordance with Article II, paragraph 2(b);
- 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 any proposal to amend Appendix I or II the Parties shall apply the precautionary principle so that scientific uncertainty should not be used as a reason for failing to act in the best interest of the conservation of the species;~~

RESOLVES that when considering a proposal to amend Appendix I or II, the Parties shall act in the best interest of the species concerned and of its conservation, and adopt measures that are proportionate to the anticipated risks to the species;

IUCN recognises there have been difficulties in the interpretation of the previous precautionary text, but believes a reference to uncertainty should be incorporated and suggests adding the language "shall take uncertainty into account and act in the best interest of the species concerned". IUCN also finds the qualifying statement, "proportionate to the anticipated risks" problematic and liable to varying interpretations. IUCN suggests closing this paragraph as follows: "and adopt measures based on an assessment of risks that have the highest chance of enhancing the conservation of the species in practice."

Explanation: The rewording combines the text of the last preamble with the text in the first operational paragraph of the Resolution to achieve a stronger and more direct reference to the precautionary principles. The added text, "and adopt etc.", proposed by the CWG, clarifies the context in which the precautionary principles should apply and provides guidance to the Parties.

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

- a) any species that is or may be affected by trade should be included in Appendix I **in accordance with Article II, paragraph 1**, if it meets at least one of the biological criteria listed in Annex 1;

IUCN notes that this statement is actually contradicted by one further down, where it implies that species that meet the Appendix I criteria should not always be listed as such.

Explanation: The inserted text provides consistency with the structure and language of the proposed paragraphs b) and c) below.

- ~~b) a species "is or may be affected by trade" if:~~

- ~~i) it is known to be in trade; or~~
- ~~ii) it is probably in trade, but conclusive evidence is lacking; or~~
- ~~iii) there is potential international demand for specimens; or~~
- ~~iv) it would probably enter trade were it not subject to Appendix I controls;~~

Explanation: As suggested by the CWG, the section is moved to and incorporated in Annex 5, Definitions, explanations and guidelines.

~~c) any species that meets the criteria for inclusion in Appendix II listed in Annex 2a should be included in Appendix II in accordance with Article II, paragraph 2(a);~~

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;

Explanation: The proposed rewording improves the clarity of the paragraph, and makes it consistent with the proposed language in paragraphs a) and c).

~~d) 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;~~

~~e) 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;~~

~~f) 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 ~~no~~ **negligible** probability of trade taking place in specimens of wild origin;~~

IUCN, in preparing the *Analyses of Amendment proposals* has noted the difficulty of establishing that no trade is taking place and supports the intent of the change of “no trade” to “negligible trade”.

Explanation: As the probability of future trade in specimens of wild origins can never be totally excluded for those species for which the only known trade consists in specimens from artificially propagated or captive bred sources, the word “negligible” is more appropriate and maintains the intention of this paragraph.

~~g) any species included in Appendix I for which sufficient data are available to demonstrate that it does 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;~~

~~h) any species included in Appendix II in accordance with Article II, paragraph 2(a), that does 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; and~~

~~i) the views, if any, of intergovernmental organizations 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 presented in the format in Annex 6, ~~unless otherwise justified;~~

Explanation: The last three words are superfluous: the use of the word “should” in the preceding part of the sentence provides the same flexibility and conditionality as was sought by inserting these three words.

RECOMMENDS that a species should normally not be included in Appendix I when the risk of the listing is considered to outweigh the conservation benefit of the listing;

IUCN notes that this “RECOMMENDS paragraph” contradicts subparagraph a) under the second RESOLVES (see above). The second RESOLVES requires that species should be listed on Appendix I if they meet the criteria, but this RECOMMENDS paragraph then qualifies that earlier RECOMMENDS. IUCN believes that the sentiments expressed in this RECOMMENDS paragraph are required, but to deal with this ambiguity and to correctly place the burden of proof, suggests the following wording:

“RECOMMENDS that a species that meets the criteria for Inclusion in Appendix I should normally be included on that Appendix unless the risk of the listing on Appendix I is considered to outweigh the conservation benefit of the listing;”

Explanation: The text of this RECOMMENDS is based on the one proposed in the report of the first meeting of the CWG. The Chairmen have carefully considered the written comments provided before and the comments made at the joint meeting. They believe that the text proposed here is a reasonable compromise between the various positions on this subject.

RESOLVES that Parties should not normally approve the transfer to Appendix I of species subject to review under the provisions of Resolution Conf. 8.9 (Rev.), or establish zero export quota for such species unless the proponent, following consultation with the Animals and Plants Committee, demonstrates why the procedures outlined in Resolution Conf. 8.9 (Rev.) are not sufficient;

IUCN notes that this is one of several places where particular responsibilities have been placed on the proponent in the criteria. These criteria are to be used by the COP, so it is the COP that needs to be satisfied that the Conf. 8.9 procedures are not sufficient in this instance. If the COP needs independent advice on the matter, then that should come from the Animals or Plants Committee, not the proponent. To incorporate this subtlety of responsibility IUCN suggests the following modified text:

RESOLVES that Parties should not normally approve the transfer to Appendix I of species subject to review under the provisions of Resolution Conf. 8.9 (Rev.), or establish zero export quota for such species unless they deem the proponent, following consultation with the Animals and Plants Committee, to have demonstrated why the procedures outlined in Resolution Conf. 8.9 (Rev.) are not sufficient;

Explanation: The idea of this paragraph was proposed in the report of the first meeting of the CWG. Taking into account the various comments made in the joint meeting, the Chairmen believe that the currently proposed text should be acceptable. The intent of this amendment is to strengthen recognition of Resolution Conf. 8.9 as an alternative for an appendix-I listing, because it is aimed at assisting Parties in the wise management of species by applying specific corrective measures.

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 and on the basis of the best scientific advice;

Explanation: The paragraph draws attention to the relevant Resolutions, and emphasises that the annotations should be scientifically meaningful, unambiguous and justifiable.

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

IUCN believes that all available biological data should be used in as quantitative a manner as possible. However, IUCN’s experience of using quantitative analysis in the IUCN Red Listing criteria has highlighted the difficulty of using quantitative modelling. In practice there are many different models, parameter values and assumptions that can be used in the analysis. Our experience suggests that the biological parameters are not as significant for model outcome as the parameters that relate to extrinsic processes such as future human exploitation, long-term environmental change and interspecific effects. These have high impacts in extinction models, yet it is very difficult to estimate the appropriate values for their trajectories or significance, consequently it is vital that any modelling criterion is supported by constructive approaches to handling uncertainty. Consequently is important when modelling approaches are used to ensure that the models are subject to independent expert review.

IUCN suggests the following modification: ENCOURAGES Parties, when sufficient relevant biological data are available, to include a quantitative evaluation in the supporting statement of the amendment proposal, recognising the limitations associated with incorporating reliable measures of extrinsic factors in quantitative models and the need for independent review of quantitative modelling approaches;

Explanation: The inclusion in amendment proposals of information on stock assessments, population viability assessments, and other quantitative evaluations of suitable biological data to determine the status and/or trends in a wild population should be encouraged. This view was brought forward in the CWG. Furthermore, use of the word 'encourage' does not mean that quantitative analyses are mandatory.

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**

Explanation: A minor editorial change to take into consideration the deletion of the next paragraph.

~~RECOMMENDS that the text and the annexes of this Resolution be fully reviewed before the twelfth 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; and~~

Explanation: Redundant after the 12th meeting of the Conference of the Parties.

REPEALS the Resolutions **Conf. 9.24 (Forth Lauderdale, 1994) - Criteria for Amendment of Appendices I and II.** listed hereunder:

IUCN questions if there is a need to add: and all repealed resolutions listed therein?

- ~~a) Resolution Conf. 1.1 (Berne, 1976) - Criteria for the Addition of Species and Other Taxa to Appendices I and II and for the Transfer of Species and Other Taxa from Appendix II to Appendix I;~~
- ~~b) Resolution Conf. 1.2 (Berne, 1976) - Criteria for the Deletion of Species and Other Taxa from Appendices I and II;~~
- ~~c) Resolution Conf. 2.17 (San José, 1979) - Format for Proposals to Amend Appendix I or II;~~
- ~~d) Resolution Conf. 2.19 (San José, 1979) - Criteria for Addition of Extremely Rare Species to Appendix I;~~
- ~~e) Resolution Conf. 2.20 (San José, 1979) - The Use of the Subspecies as a Taxonomic Unit in the Appendices;~~
- ~~f) Resolution Conf. 2.21 (San José, 1979) - Species Thought to Be Extinct;~~
- ~~g) Resolution Conf. 2.22 (San José, 1979) - Trade in Feral Species;~~
- ~~h) Resolution Conf. 2.23 (San José, 1979) - Special Criteria for the Deletion of Species and Other Taxa Included in Appendix I or II without Application of the Berne Criteria for Addition;~~
- ~~i) Resolution Conf. 3.20 (New Delhi, 1981) - Ten-year Review of the Appendices;~~
- ~~j) Resolution Conf. 4.26 (Gaborone, 1983) - Ten-year Review of the Appendices;~~
- ~~k) Resolution Conf. 7.14 (Lausanne, 1989) - Special Criteria for the Transfer of Taxa from Appendix I to Appendix II; and~~

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.

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

Explanation: The amendment simply represents a re-ordering of the existing criteria and was proposed by the CWG. It provides a more logical sequence of the biological criteria for Appendix I, notably the distribution criterion (currently criterion B), the population size criterion (currently criterion A), and then the decline criterion (currently criterion C). Furthermore, knowledge of distribution and habitat is generally more readily available than information addressing the other criteria – therefore it seemed logical to give this criterion primacy over the others in terms of their sequence.

- 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 due to the species' 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
 - quality of habitat; or
 - **recruitment.**

Explanation: The rearrangement of the dashed items above provides a sequence in line with the proposed order for the Biological Criteria for Appendix I. For reasons of clarity the original language “the area or quality or habitat” have been separated under distinct dashes.

B.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
- Explanation: Although the CWG originally suggested to delete this paragraph, the Chairmen believe that it is better to maintain it. This criterion deals with small, wild population and the effect of the rate or extent of a decline may be proportionally different than for large populations.*
- ii) each sub-population being very small; or
 - iii) a majority of individuals, during one or more life-history phases, being concentrated in one sub-population; or
 - iv) large short-term fluctuations in the number of individuals **in those life history stages that are of critical importance for the continued survival of the species;** or

IUCN notes that sub-paragraph iv) is meaningless, because all life history stages are by definition essential for the continued survival of the species in question. Consequently IUCN opposes the addition of this phrase, but notes that any ambiguity could be removed by changing “number of individuals: to “number of mature individuals” (as is done in the IUCN Red List Criteria).

Explanation: The additional text is an amended version of a proposal made by FAO at the joint meeting. The reason for its insertion is that large short-termed fluctuations in the numbers of individuals may be exhibited naturally in small wild populations of species that are highly fecund, and biologically characterized by a reproductive R-strategy. However, such fluctuations in numbers of individuals would be of concern when occurring in life history stages that are of vital importance to the continued survival of the species, and that provide the best indicators of the viability of the population.

- v) a high vulnerability due to the species' biology or behaviour (including migration).
- C. A **marked** decline in the number of individuals in the wild, which has been either:

In compiling the Analyses of Amendment proposals, IUCN has noted difficulties in interpretation of “decline” and recommended that this term be qualified and notes that marked decline is defined in Annex 5.

Explanation: The insertion of “marked”, as suggested by the CWG, provides a degree of qualification of the decline, and is further expanded upon and defined in the relevant paragraph in Annex 5, Definitions, explanations and guidelines.

- 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
 - threats from extrinsic factors such as the effects of pathogens, competitors, parasites, predators, hybridization, introduced species and the effects of toxins and pollutants; or
 - decreasing **recruitment**.

Explanation: Separating “a decrease in area or quality of habitat” into two separate dashes adds to clarity and consistency.

- ~~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.~~

Explanation: The Criterion in paragraph D is deleted and incorporate in the proposed criterion A in Annex 2a. In circumstances when this criterion would apply i.e. substantial illegal trade in a species that requires to be strictly regulated, it would be more appropriate and practical to opt for inclusion in Appendix II with trade restrictions. In addition, a species that would satisfy this criterion will most probably also satisfy one of the other criteria in this Annex. This criterion is therefore duplicative and it would be better to delete it in favour of an Appendix-II criterion. That criterion would apply to those cases where species are known to also be subject to large volumes of trade that is not regulated and where an Appendix-II criterion is required to avoid that the species would eventually satisfy criteria for inclusion in Appendix I.

IUCN notes that the proposed solution of inclusion in Appendix II is not completely satisfactory. IUCN recognises the dilemma that inclusion in Appendix I may push the trade “underground” so that levels can no-longer be monitored and recognises the desire to avoid this outcome by including/ maintaining the species in Appendix II with a zero quota. However, it is not clear what mechanism the Parties should adopt to maintain species already included in Appendix II but institute a zero quota, (in cases where the problem has not been picked up by the significant trade process) – Should the format for proposals contain guidance on submitting a proposal to annotate a current listing e.g. to propose a zero quota for an Appendix II species?

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

The following criteria must be read in conjunction with the definitions, explanations and guidelines listed in Annex 5.

~~A species should be included in Appendix II when either of the following criteria is met.~~

- ~~A. It is known, inferred or projected that unless trade in the species is subject to strict regulation, it will meet at least one of the criteria listed in Annex 1 in the near future.~~
- ~~B. It is known, inferred or projected that the 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.~~

Explanation: The paragraphs are deleted and proposed to be replaced by the text hereunder.

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

IUCN supports retention of the original wording : “A species should be included in Appendix II when either of the following criteria is met”. By retaining the original wording, the Parties are given the credit for assessing the available information and making appropriate decisions, so that species are neither listed unnecessarily nor overlooked through a genuine lack of information. Indeed the third RESOLVES already requires Parties to prepare proposals on the basis of the best available information. For example, the Parties have determined that the trade in South-east Asian freshwater turtles requires review and are also investigating the possibility that several Appendix II listed species are being harvested unsustainably. The Parties made this determination, (which IUCN supports) – despite the lack of information on the status and trends of the wild populations. This determination has been made on the basis of the vast trade volumes in these species with the lack of recent sightings of these species in the wild, and the slow reproductive rates of the species involved.

Explanation: The new text of the paragraph, as proposed by the CWG, is clearer in pointing out that available information plays an important role in deciding whether a species should be listed in Appendix II. Clearly, trade volume in a species has no meaning unless it can be linked in a meaningful way to the conservation status and biological characteristics of the species. The proposed language has the affect of avoiding the inclusion in Appendix II of species that do not require CITES controls to ensure that trade is not detrimental to the conservation of the species.

- A. It is known, or can be inferred or projected that the regulation of trade in the species is necessary to avoid that it becomes eligible for inclusion in Appendix I in the near future; or**

This could be re-worded as follows:

It is known, or can be inferred or projected that the regulation of trade in the species is necessary to avoid the species becoming eligible for inclusion in Appendix I in the near future; or

Explanation: Criterion A of Annex 2a was originally proposed by the CWG, and is reworded to fit in former biological criterion D for incorporating species in Appendix I (in Annex 1). The language is more direct and more specific. This criterion provides a mechanism to include in Appendix II species that require trade controls in order to avoid a situation that necessitates listing the taxon directly in Appendix I in the near future.

- 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 not detrimental to the species concerned.**

Explanation: The proposed wording under the new criterion B is an adaptation of the text proposed in the report of the first meeting of the CWG. In view of the many comments on the earlier proposed new criteria B. and C., the Chairmen have suggested this new text to permit Parties to propose Appendix-II listings of species for which trade regulation is required to ensure sustainable utilization. This was also the intent of the text originally proposed by the CWG.

Annex 2b

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

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

IUCN supports the change to “may” but notes that the change proposed here now contradicts the main resolution, where the word “should” is used with relation to the Article II.2.b criteria.

Explanation: To indicate a certain flexibility in the application of the “look-alike” provisions in cases where very large numbers of species or specimens in commercial trade would require listing, “should” is replaced by “may”, as proposed in the CWG. Some additional minor editorial changes are made to make the text consistent with the same one in Annex 2a.

~~A. The specimens resemble specimens of a species included in Appendix II under the provisions of Article II, paragraph 2(a), or in Appendix I, such that a non-expert, with reasonable effort, is unlikely to be able to distinguish between them.~~

~~B. The species is a member of a taxon of which most of the species are included in Appendix II under the provisions of Article II, paragraph 2(a), or in Appendix I, and the remaining species must be included to bring trade in specimens of the others under effective control.~~

Explanation: The paragraphs are deleted and proposed to be replaced by the text hereunder.

- A. The specimens of a 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, for which the proponent has demonstrated that a non-expert, using basic identification materials and with reasonable effort, is unlikely to be able to distinguish between them; or**

IUCN, whilst recognising the need for the proponent to undertake the initial identification work, notes that the ultimate responsibility for determining whether specimens can be identified falls to the COP assisted, as necessary, by the Animals or Plants Committee and the proposed text should reflect this..

Explanation: The formulation of the new paragraph A implies that a proponent asking for the inclusion of ‘species’ under the provisions of Article II, paragraph 2(b) (for look-alike reasons) should explain in reasonable detail why the specimens (in the sense of the CITES definition, thus including all parts and derivatives) can not be easily differentiated by a non-expert. Such an explanation will also provide the Conference of the Parties with a clear indication of possible enforcement problems and costs resulting from the adoption or non-adoption of the proposal.

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

IUCN supports this change.

Explanation: The old paragraph B goes beyond the provisions of paragraph 2(b) of Article II because it allows for automatic higher taxon listings where this might not be necessary to achieve the intent of this paragraph. The proposed alternative text provides sufficient flexibility for the inclusion of species to assure the application of effective trade controls when necessary. This criterion reinforces the precautionary approach by providing a mechanism by which a species can be included in Appendix II pursuant to Article II, paragraph 2(b).

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 continental 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.~~

Explanation: The text is separated into two new paragraphs. The new formulations state more clearly the possible benefits and disadvantages of split-listing.

Listing of a species in more than one appendix should be avoided unless it relates to the transfer of a population from Appendix I to Appendix II in accordance with the precautionary measures contained in paragraph A of Annex 4 to this Resolution.

IUCN notes that split-listings may have some conservation benefits in allowing a greater range of management tools to be brought to bear on a problem. The use of split-listings also demonstrates CITES ability to evolve as a Convention and to incorporate current conservation thinking. With this in mind, IUCN questions why split listing is being limited to cases of transfer from I to II, noting that there are instances for split-listing when populations are moved from II to I, although it may be the intention of CWG that these are dealt with by an annotation and Appendix II zero quota.

IUCN suggests the following changes in red:

Listing of a species in more than one appendix should **generally** be avoided unless it relates to the transfer of a population from Appendix I to Appendix II in accordance with the precautionary measures contained in paragraph A of Annex 4 to this Resolution **or to the retention of certain national or regional populations in Appendix II when the majority of the species meets the criteria for Inclusion in Appendix I.**

Explanation: The proposed text improves clarity, and was discussed in the CWG.

When split-listing does occur, this should generally be on the basis of national or regional populations, and should not result in some populations being excluded from the Appendices if enforcement problems are created by doing so.

IUCN recommends deleting “if enforcement problems are created by doing so”.

Explanation: The text improves clarity, and was discussed in the CWG.

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 co-ordinates.

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.

Precautionary measures

~~A. When considering proposals to amend the appendices, the Parties shall, in the case of uncertainty, either as regards the status of a species or as regards the impact of trade on the conservation of a species, act in the best interest of the conservation of the species.~~

Explanation: This paragraph is redundant because the wording of the paragraph is covered by the amended stronger text in the operational part (under RESOLVES).

- A.B.** 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 considered for transfer~~ **normally be transferred** to Appendix II if they do not satisfy the relevant criteria in Annex 1. ~~Even if such species do not satisfy the relevant criteria in Annex 1, they should be retained in Appendix I unless they satisfy one of the following criteria , and one of the following precautionary safeguards a) or b) is met:~~

IUCN notes that there is some confusion regarding the wording here, IUCN supports the notion that species should be transferred from Appendix I if they no longer satisfy the Appendix I criteria AND one of the precautionary safeguards is in place.

Explanation: The proposed changes improve the language of this paragraph, and re-enforces the application of a precautionary approach to counteract the proposed deletion of old paragraph A of Annex 4.

- 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 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~~

Explanation: This paragraph is unnecessary because its content is covered by old paragraph d) [= new c)]. The deletion of this paragraph further reinforces a precautionary approach to transfers from Appendix I to Appendix II by only providing for such transfers when an export quota has been approved by the CoP for a specified period of time – thereby requiring the range State to re-submit a proposal for any continuation of trade beyond the period specified.

- ~~c) d)~~ an integral part of the amendment proposal is an export quota approved by the Conference of the Parties for a specified period of time, based on management measures described in the supporting statement of the amendment proposal, provided that effective enforcement controls are in place; or
- ~~d) e)~~ 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 ~~with an export quota~~ 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.

Explanation: This deletion was already proposed in the report of the first meeting of the Criteria Working Group. The text is superfluous because paragraph b) above provides for the possibility of a transfer without a quota, in which case the proponent should still withdraw its reservation.

- ~~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.~~

Explanation: In the report of the first meeting of the Criteria Working Group it was proposed to delete this criterion, because it does not provide any meaningful guidance to the Parties. The new text proposed in this report was regarded by many as not being appropriate either. The Chairmen therefore propose the following new text.

- **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 Resolution Conf. 8.9 (Rev.) concerning its conservation status.**

IUCN suggests adding the text from old paragraph 4:

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 Resolution Conf. 8.9 (Rev.) concerning its conservation status; or if such deletion would be likely to result in it qualifying for inclusion in the appendices in the near future.

Explanation: The paragraph needs to be considered together with paragraph g) [= old h)] under the second Resolves in the operative part of the Resolution. The intent of the new text is to be more prescriptive by providing the guiding precautionary measures in accordance with the mentioned paragraph g).

- ~~B.C.~~ The following review procedures shall apply when a species is transferred to Appendix II pursuant to paragraphs ~~BA2c~~ and ~~BA2d~~ 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.D.~~ If the proponent Party wishes to renew, amend or delete a quota established pursuant to paragraph ~~BA2d~~ above, it shall submit an appropriate proposal for consideration at the next meeting of the Conference of the Parties. In anticipation of there being no such proposal submitted, the Depositary Government shall submit a proposal for consideration at the next meeting of the Conference of the Parties to impose a zero quota.

- ~~D.E.~~ 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).

Explanation: There are minor editorial changes to accommodate the renumbering of the paragraphs.

Annex 5

Definitions, explanations and guidelines and notes

Explanation: The title of this Annex has been slightly changed to better reflect the contents of the various paragraphs below.

Species *IUCN believes this definition is potentially very important – on the one hand the biological unit of the species/ population is important – but on the other hand at the pragmatic level, implementation of CITES provisions takes place at the level of national boundaries. This raises the question of what to do about fishery stocks – which are often not biological units, nor are they necessarily national units. There are also important questions in relation to the definition of “species” for migratory 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. **Geographically separate populations of a species may include** The two terms also cover varieties, populations, sub-populations and fisheries stocks.

IUCN concurs with the initial part of the proposed definition of species, and subspecies, although finds it confusing to define population and sub-population in this paragraph and then further through this Annex to find separate definitions of population and subpopulations. However IUCN questions whether the two terms (species and subspecies) also cover varieties, populations, sub-populations and fisheries stocks. The designation of fisheries stocks may not reflect biological differences, but may rather be determined by lines on a map delimiting management units (n such cases there may also be the added complication of being able to identify specimens from these stocks reliably). Consequently, IUCN suggests changing the second sentence to read:

Geographically separate populations of a species may include varieties, populations, sub-populations and fisheries stocks.

To further clarify the situation it might be useful to consider incorporation of the text from Annex 3:

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.

‘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 to the ‘stocks’ traditionally used in fisheries.

Until now, the Conference of the Parties has interpreted ‘geographically separate populations’ to be populations delimited by geopolitical boundaries, whereas they have not yet used the other option of geographical boundaries.

IUCN finds the discussion on geographically separate and geopolitically separate populations somewhat confusing as it provides no particular guidance to the Parties.

Affected by trade

~~b)~~ **a** A species “is or may be affected by trade” if:

~~i)~~ it is known to be in trade; or

- ~~ii) it is probably in trade, but conclusive evidence is lacking; or~~
- ~~iii) there is potential international demand for specimens; or~~
- ~~iv) it would probably enter trade were it not subject to Appendix I controls;~~

Explanation: This part has been removed from the operational part (under the second RESOLVES) and incorporated in Annex 5 because it concerns definitions. Paragraph iv) is deleted because it concerns a listing criterion, and is not a definition of a species "that is or may be in trade".

- i) it is known to be in trade, and that trade has a detrimental impact on the status of the species;
or

IUCN notes the huge implications of the new text proposed by the CWG, as it is central to the operation of the Convention. During the development of the Resolution Conf 9.24 Criteria it was decided that the term "is affected by trade" did not imply that the trade was detrimental. In other words, the Parties interpreted the Convention as saying that if a species is threatened with extinction (i.e., meets the biological criteria for Appendix I), then it should not be in international commercial trade. This new interpretation interprets "affected by trade" to be detrimental trade only. In other words, the Convention is now being interpreted as saying that if a species is threatened with extinction (i.e., meets the biological criteria for Appendix I), and if it is subject to detrimental trade, then it should no longer be in international commercial trade. If the Parties accept this proposed change in wording, it implies that they have adopted a radically different interpretation of the meaning of Convention text relating to the species that should be included in Appendix I from the one they chose in Fort Lauderdale in 1994. IUCN draws the attention of the Parties to the need to come to a clear position on the meaning of Article II, paragraph 1 before deciding to change the wording of the criteria.

However, From IUCN's experience of undertaking *the Analyses of Proposals to amend the CITES Appendices*, it is clear that interpreting the phrase "is affected by" as above could result in the Appendices including many species that would not benefit directly from CITES protection, because international trade is not impacting their populations. On the other hand, for some species it may be difficult to show the causal link that trade is impacting the species. As a minimum, IUCN suggests the addition of the words "or may have" so that the new text now reads: "that trade has, or may have, a detrimental impact". However, the new text might need more radical change than this, and possibly even a reversion to the original text from Resolution Conf. 9.24.

Explanation: The wording of former paragraph i) is improved in accordance with suggestions in the report of the first meeting of the CWG.

"Note by the Chairs of the Animals and Plants Committees and the CWG: The second meeting of the Criteria Working Group recommended that words 'may have' should be used in stead of 'has' as proposed by the Chairs. The Chairs are, however, of the opinion that if trade is known to exist it must be demonstrated that this trade has a detrimental impact. They therefore continue to favour the option of using 'has' in this criterion."

- ii) it is suspected to be in trade, or there is potential international demand for the species that may be detrimental to its survival in the wild.

Explanation: The former paragraphs ii) and iii) have been incorporated into this paragraph which addresses instances in which conclusive evidence of trade in the species is lacking but suspected to exist, and in which potential trade or the international demand may be detrimental to the conservation of the species. The new text is based on recommendations from the CWG.

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 area of distribution, account should be taken of discontinuities or disjunctions in the spatial distribution of species. 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.). For some species in trade where for which data exist were available to make an estimate, a figure of less

than 10,000 km² 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.

Decline

~~A decline is a reduction in the number of individuals, or a decrease of the area of distribution, the causes of which are either not known or not adequately controlled. It need not necessarily still be continuing. Natural fluctuations will not normally count as part of a decline, but an observed decline should not be considered part of a natural fluctuation unless there is evidence for this. A decline that is the result of a harvesting programme that reduces the population to a planned level, not detrimental to the survival of the species, is not covered by the term "decline". For some species in trade where data exist to make an estimate, a decrease of 50% or more in total within 5 years or two generations, whichever is the longer, has been found to be an appropriate guideline (not a threshold) of what constitutes a decline. A guideline (not a threshold) of what constitutes a decline in a small wild population could be 20% or more in total within ten years or three generations, whichever is the longer. However, both these figures are presented only as examples, since it is impossible to give numerical values that are applicable to all taxa. There will be many cases where these numerical guidelines do not apply.~~

A decline is a reduction in the abundance or area of distribution of a species. 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 estimated or inferred baseline for extent of decline should extend as far back into history as possible.

A general guideline for a marked historical extent of decline is a percentage decline to 5%-30% of the baseline, depending on the biology of the species. 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.

A general guideline for a marked recent rate of decline is a percentage decline of 50% or more in the last 10 years. If the population is small, a percentage decline of 20% or more in the last 10 years may be more appropriate. The percentage used should also depend on the biology of the species.

The historical extent of decline and the recent rate of decline should be considered in conjunction with one another. A given recent rate of decline is of greater concern the higher the historical extent of decline.

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 continuing. 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 a harvesting programme that reduces the population to a planned level, not detrimental to the survival of the species, is not covered by the term "decline".

IUCN oppose these changes in the definition of decline:

- **For the vast majority of species it will be virtually impossible to reliably determine historic baselines of abundance or extent of distribution. Consequently, it will be extremely difficult to agree on the extent of decline. Whilst this may be a useful concept for species which have largely been exploited in recent centuries, significant human impacts many species have been recorded for much longer periods and in many cases there is little reliable information on extents of population decline.**
- **The proposed definitions of decline do not include any measure of the reversibility of the decline – an irreversible decline clearly has much more significant consequences than one that is likely to be reversible. Indeed, the concept of generation time has been removed, and so the ability to scale the seriousness of a decline**

in relation to the capacity of a species to recover is lost (or only encompassed in the vague sentence “The percentage used should also depend on the biology of the species” which is open to wide interpretation).

- **IUCN believes that 10 years is far too short a time period to measure a decline for the long-lived, slow-breeding species that matter most to CITES, declines MUST be scaled to the capacity of a species to recover.**
- **IUCN does not support the paragraph: “A given recent rate of decline is of greater concern the higher the historical extent of decline.” IUCN contends that recent rates of decline are more problematic in species which have undergone large extents of decline. Declines in naturally small, endemic populations are probably more worrying than declines in large, widespread species, whatever their current vs. historical decline. For example, the grey wolf (*Canis lupus*) historically had a holarctic distribution, but despite a severe restriction in range now numbers in the tens of thousands of wolves. In contrast, the Ethiopian wolf (*Canis simensis*) had a very restricted distribution and the populations have never been large. However, their range is probably less curtailed (on a percentage basis) than that of grey wolves and yet with a mere 400 Ethiopian wolves today, a 10% rate of decline in Ethiopian wolves would be cause for concern, but a 10% decline in grey wolves might not even be in the realm of statistical inference.**

In summary IUCN proposes that the original definition of decline be re-instated, which scales decline to the species’ ability to recover (using the surrogate of generation length). However, IUCN proposes that the words “or a decrease in the area of distribution” be deleted from the first sentence of the original paragraph to remove what has clearly given rise to a confusion in interpretation. IUCN also notes the suggestion of FAO (in their process to review the CITES Criteria) that decline rates should be scaled against the intrinsic rate of population increase (r). For most species, this will not be practical, since r is not known, and is hard to measure. However, IUCN is working on some text which would allow declines to be scaled either against three generations, or against r (in other words, the criteria would provide a choice of two options for scaling declines against the capacity of a population to recover).

Explanation: The current use of “decline” in Annex 1 Resolution Conf. 9.24 is unclear as to whether the extent of decline or the rate of decline is referred to, while the current Annex 5 discusses the rate of decline only. The CWG2 discussed this in detail, and agreed to recommend to the Parties the inclusion of the concepts of both “historical extent of decline” and “recent rate of decline”. The proposed explanation of “decline” above provides guidelines for ranges of percentage historical extent of decline and recent rate of decline, that are of particular concern and reflect risks to the status of species in the wild. The worst scenario is the case of a large historical extent of decline combined with a high recent rate of decline, and therefore both should be considered. However, each in isolation can also be cause for concern. For example, if a species has already been heavily reduced, there is a threat of extinction even if it is not currently declining. Further, a 50% decline in recent years should be of far greater concern for a species that has already declined to, for example, 10% of historical levels than it would be for a previously unexploited population. A historical extent of decline from 5%-30%, depending on the biology of the species, is recommended as a cause for concern for the long-term viability of a species. For a given species, the percentage that triggers concern may fall outside this range, depending on vulnerability factors, as discussed elsewhere in Annex 5. The Working Group believes these guidelines may have broad applicability, although they are drawn from the literature on exploited marine species and would benefit from evaluation for other taxa.

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

~~Large fluctuations occur in a number of species where the~~ **in** population size or area of distribution are considered large when they vary widely, rapidly or frequently. 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 **(insert: Fluctuations?)**. Similarly, fluctuations can be considered ‘short term’ if the period of fluctuation is

~~about two years. varies widely, rapidly and frequently, with a variation greater than one order of magnitude. For some species in trade where data exist to make an estimate, a figure of two years or less has been found to be an appropriate guideline (not a threshold) of what constitutes a short-term fluctuation. 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 km² 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

~~Generation is measured as the average age of parents in the population; except in the case of species that breed only once a lifetime, this will always be longer than the age at maturity.~~

IUCN notes, as mentioned above, that by removing generation time, any scaling of the decline against the capacity of a species to recover is lost. IUCN recommends that generation time be re-instated in the criteria, but using the new IUCN definition from the IUCN Red List criteria: 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.

Explanation: This term is no longer used in the criteria.

Large fluctuations

~~Large fluctuations occur in a number of species where the population size or area of distribution varies widely, rapidly and frequently, with a variation greater than one order of magnitude. For some species in trade where data exist to make an estimate, a figure of two years or less has been found to be an appropriate guideline (not a threshold) of what constitutes a short-term fluctuation. 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.~~

Explanation: Since this section covers both 'large fluctuation' and 'short-term fluctuation' it has been moved under a new heading 'fluctuation'.

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, however 5-10 years is considered an appropriate time period.

Population issues

Explanation: under this heading all paragraphs related to population have been brought together for easier reference.

Population

Population **refers to** ~~is measured as~~ the total number of individuals of the species (as **species is** defined in Article I of the Convention). ~~In the case of species biologically dependent on other species for all or part of their life cycles, biologically appropriate values for the host species should be~~

chosen. For some species in trade 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. 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.

Explanation: The small textual changes serve to clarify the definitions. The first strikethrough sentence is reintroduced as the one but last bullet point under 'population size' below. The remaining part appears below under the heading 'small wild population'.

Sub-population

Sub-populations are defined as geographically or otherwise distinct groups in the population between which there is **little limited genetic** exchange. For some species in trade 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 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.

Explanation: The added text makes the definition more precise. The strikethrough text is reintroduced below under the heading 'very small sub-population'.

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 the effective population size or not. When estimating the effective population size, the following points should be born in mind.

- Where the population is characterised by natural fluctuations use a lower estimate. In most cases this will be much less than the mean.
- Individuals that cannot produce recruits should not be counted (e.g. densities are too low for fertilization).
- This measure is intended to count individuals capable of reproduction and should therefore exclude individuals that are environmentally and behaviourally or otherwise reproductively suppressed in the wild.
- For the number of individuals in populations with biased adult or breeding sex ratios it is appropriate to use lower estimates which take this into account (e.g. estimated effective population size).
- Reproducing units within a clone should be counted as individuals, except where such units are unable to survive alone.
- 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.
- In the case of taxa that naturally loose all or a subset of individuals at some point in their life cycle, the estimate should be made at the appropriate time, when individuals are available for breeding.

Small wild population

For some species in trade 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. 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.

Very small sub-population

For some species ~~in trade~~ 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 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 ~~presumably~~ **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.

Explanation: This change is made to make the text consistent with the title.

Recruitment

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

Sub-populations

~~Sub-populations are defined as geographically or otherwise distinct groups in the population between which there is little exchange. For some species in trade 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 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.~~

Explanation: This text has been moved under a new heading 'population issues' and divided under two subheadings: 'sub-population' and 'sub-population size'.

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 (dimensions of time and magnitude), 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.

IUCN contests this paragraph and notes that adoption of this these criteria will return the Parties to the days of subjective non-quantitative assessments. Whilst the guidelines in the Resolution (.24 criteria, were recognised simply as guidelines, they did provide the Parties with some degree of numerical guidance to ensure that different taxa were assessed in a like fashion. Under the Resolution (.24 criteria, the differences between taxa were largely handled by the fact that different aspects of the criteria would more closely reflect extinction risk for different taxa, so some endemic species would qualify under the restricted range criterion, but these would probably differ from species that would qualify under the small population criterion and finally the species where the number of individuals is declining.

Vulnerability

IUCN notes that in Annex 1 Aiii), and Bv) the wording is “a high vulnerability due to the species’ biology or behaviour (including migration)”. The list of vulnerability factors goes beyond species’ biology and behaviour, including habitat loss, climate change – some consistency/ clarification is required.

Vulnerability can be defined as the susceptibility of a species to extinction risk.

There are a number of taxon- or case-specific biological and other factors that are likely to affect the extension risk associated with a given percentage decline, small population size or restricted area of distribution. This can be, but are not limited to, any of the following:

- Life history (e.g., low fecundity, slow growth rate, 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).
- Behavioral factors (e.g., social structure, migration).
- Density (for sessile or semi-sessile species).
- Specialized niche requirements (e.g., diet, habitat, endemism).
- Species associations such as symbiosis and other forms of co-dependency.
- Fragmentation.
- Reduced genetic diversity.
- Severe habitat loss.
- Threats from disease or invasive species.
- Rapid environmental change (e.g., climate regime shifts).
- Selectivity of removals (that may compromise recruitment).

Annex 6

Explanation: All recommendations for insertions, deletions and rewording that were formulated by the joint AC/PC meeting and the CWG were taken into account, and edited versions are included in the revised Annex 6 below without further detailed explanations. Where appropriate the sequence of the paragraphs in some of the sections has been changed to make them consistent with the sequence of the listing criteria.

Format for proposals to amend the Appendices

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 the extent available), to allow ~~it the Conference~~ to judge the proposal against the criteria established for the proposed action. **Parties are reminded that proposals should normally be limited to 12 pages (exclusive of references cited).** This means that the relevant published and unpublished sources of information should be used, ~~but acknowledges that~~ **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~~ **Proposal** format.

A. Proposal

The proponent should indicate the ~~intent of the specific action~~ **amendment to the Appendices** being proposed and **any relevant annotations or qualifications** ~~the relevant criteria against which the proposal is to be judged.~~

___ Inclusion in Appendix I. **Specify which of the criteria in Annex 1 of the Resolution are satisfied.**

___ Inclusion in Appendix II. **Specify which of the criteria in Annex 2 of the Resolution are satisfied.**

___ in accordance with Article II 2(a)

___ in accordance with Article II 2(b)

- for reasons of look-a-like problems (in this case, the name of the similar species already included in the appendices should be given in section C7 11 Additional Remarks)
- for other reasons (such as those referred to in Annex 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 criteria and factors 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) **IUCN suggests to clarify the text below on annotations, add: “insertion of proposal to annotate a current appendix listing”.**

Annotations

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

Whether the proposed annotation is in compliance with Resolution Conf. 11.20; and

The practical intent of the annotation.

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

1.6 Common names

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.

1.7 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.

3.2. Species characteristics Biological Parameters

The information required in this section is a summary of ~~the principal results of~~ surveys, literature searches, and ~~other 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~~ ~~–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 for appropriate context.**

3.2.1 Distribution

Specify ~~Give an estimate of the current range of the species, and specify the references used. Specify the types of habitats occupied and, if possible, the extent of each habitat type over the 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.

3.2.2 Habitat availability

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. ~~Give information on the nature, rate and extent of habitat loss and/or degradation, if possible with information from at least three points in time, and give the basis for future projections.~~

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, reproductive strategies). **Include Vulnerability Factors?**

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

IUCN suggests modifying the first sentence for clarity: The information required in this section ~~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, 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, when relevant, the biological species in its entirety for 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.

IUCN notes that the text concerning the need for “information from three points in time, if possible,” should be retained.

4.2 ~~2.1~~ Population size status

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.** ~~with: i) date and nature of census; and ii) justification for any inferences made about total population size and/or number of individuals. Where appropriate provide~~ Give the number of sub-populations, **and where possible their estimated sizes.**, ~~and the date and method of census. Give an estimate of, or information on, the size of the population in captivity.~~

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, sex ratio).

4.4 ~~2.4~~ Population trends

Basic, quantitative ~~and referenced~~ **and qualitative** information, **when available**, should be provided on **current** ~~whether the population of the species is increasing, stable or declining,~~ **and past trends in the species' abundance.** 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.

IUCN notes that the text concerning the need for “information from three points in time, if possible,” should be retained. Similarly the requirement that methods of population assessments should be described, should also be retained.

4.5 ~~2.5~~ 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. ~~Give data on the nature, rate and extent of decrease in range area or number of sub-populations, if possible with information from at least three points in time. If relevant~~ **Give data on the degree and periodicity of fluctuations in the area of distribution.** ~~range area or number of sub-populations, if possible with information from at least three points in time.~~

~~2.6~~ Role of the species in its ecosystem

~~Give information about the specific relationship that exists between this species and others living in the same ecosystem. Indicate the possible consequences of depletion of the population of the species proposed for listing, for those depending on or associated with it.~~

5. ~~2.7~~ Threats

Specify the nature, intensity and **relative importance** ~~extent~~ of threats (e.g. habitat loss and/or degradation; **over**-exploitation; effects of introduced species, competitors, pathogens, parasites, predators, hybridization, ~~and the effects of~~ toxins and pollutants; etc.), ~~if possible with information from at least three points in time, and give the basis for future projections. Discuss in particular the relative importance of exploitation for international trade as a threat to the species in question.~~

6.3. Utilization and trade

63.1 National utilization

Specify the types and extent of all known uses of the species, indicating trends if possible. Give data on the level of exploitation, indicating trends if possible. Specify the purposes of exploitation. Provide details of harvest methods. Assess the importance of the offtake and the relationship between national and international trade. 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.

~~Where applicable, provide details of commercial captive-breeding or artificial propagation operations for the species in question, including the size of captive stock 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.~~

63.2 Legal international 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. **Discuss which parts and derivatives are or will be primarily in trade.**

Assess the importance of the offtake and the relationship between national and international trades.

63.3 Illegal trade

To the extent possible, quantify the level of illegal trade, ~~including nationally and internationally, trade, and~~ **describe its** ~~provide details of the nature of this trade.~~ Assess the relative importance of this trade as it relates 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.

63.4 Actual or potential trade impacts **of the proposal**

~~Comment on the actual or potential trade impacts of the proposed amendment on the species in question, and on the reason for believing that trade might become a threat to the survival of the species in question, or on whether trade may be beneficial to the survival of the species in question. Where applicable, include information on the actual or potential ecological impacts of the change in trade controls.~~

~~3.5 Captive breeding or artificial propagation for commercial purposes (outside country of origin)~~

~~To the extent possible, provide information on the extent of captive breeding or artificial propagation outside the country or countries of origin.~~

4. Conservation and Management

7. 4.4 Legal status instruments

7.1 4.1.1 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 protection** and/or **wise** 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 ~~4.1.2~~ International

~~In preparing proposals to amend the appendices, consult in advance with the relevant competent intergovernmental organizations responsible for the conservation and management of the species, and take their views fully into account.~~

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 protection** and/or **wise management** of the species.

Provide similar information ~~on relating to~~ 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. ~~4.2~~ Species management

8.1 Management measures

Provide details of programs 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, mechanisms and criteria for the establishment and implementation of quotas, etc.

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 ~~4.2.1~~ Population monitoring

~~Provide details of programmes in place in the range States to monitor the status of wild populations and the sustainability of offtake from the wild. Such programmes might be under the auspices of government or through non-governmental organizations or scientific institutions. Indicate the extent to which non-governmental monitoring programmes link to governmental decision-making.~~

~~4.2.2~~ Habitat conservation

~~Provide details of programmes in place in the range States to protect the habitat of the species in question, both inside and outside protected areas. Provide details about the nature of the protection offered by the programmes in question.~~

~~4.2.3~~ 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, mechanisms for ensuring that the advice of those responsible for management of the species is taken into account, mechanisms and criteria for the establishment of quotas, etc.~~

~~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.).~~

~~8.3~~ **4.3** Control measures

~~8.3.1~~ **4.3.1** International trade

Provide information ~~on~~ **regarding** 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~~ **4.3.2** Domestic measures

Provide information regarding 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 programs. 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 downlisting or delisting proposals, or of proposals involving substantive annotations, address 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. 5.~~ **Information on similar species**

Give the names of species of which specimens in trade look very similar. Provide details on state how they may be distinguished, including on the 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. Outline measures that would need to be taken to handle Provide details on how to resolve potential difficulties in distinguishing between specimens of this species from those of and similar species.

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

~~10. 6.~~ **Other Comments Consultations**

Provide details on the consultation undertaken to secure comments from the relevant competent intergovernmental organizations responsible for the conservation and management of the species, as required under the relevant Resolutions, and take their views fully into account.

IUCN notes that according to Article XV paragraph 2b (in relation to marine species):” the secretariat shall consult such intergovernmental bodies and communicate the views and data provided to the CITES Parties”. Consequently, the wording “take their views fully into account:” appears to give the requirement for consultation much greater weight than was originally intended.

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 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. ~~7.~~ Additional remarks

12. ~~8.~~ References