

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



Joint meeting of the Animals and Plants Committees  
Shepherdstown (United States of America), 7–9 December 2000

REPORT OF THE FIRST MEETING OF THE CRITERIA WORKING GROUP

Background

1. At its ninth meeting, the Conference of the Parties when adopting Resolution Conf. 9.24, also agreed to review the criteria included in it at its 12th meeting.
2. At its 41st meeting, the Standing Committee considered and approved document SC.41.19 prepared by the Secretariat, thus requesting the Chairmen of the Animals Committee and of the Plants Committee to prepare terms of reference for a review of the CITES criteria to amend Appendices I and II.
3. Their proposal (cf. document SC.42.11) was approved by the Standing Committee, and subsequently adopted by the Conference of the Parties at its 11th meeting with some amendments (cf. documents Doc. 11.25 and Com.I 11.1).
4. The amendments adopted included amongst other things the nomination of Mr Hank Jenkins (former Chairman of the Animals Committee) as Chairman of the Criteria Working Group, and the participation of FAO and ITTO, in addition to the four co-opted experts.
5. The Criteria Working Group had the following composition:

Chairman: Dr Hank JENKINS (Australia).

Animals Committee (nominated by the Chairman of the Animals Committee): Dr Richard Kiome BAGINE (Africa), Dr Schwann TUNHIKORN (Asia), Dr Marco Polo MICHELETTI BAIN (Central and South America and the Caribbean), Dr Marinus HOOGMOED (Europe), Dr Susan S. LIEBERMAN (North America), Mr Rod HAY (Oceania).

Plants Committee (nominated by the Chairman of the Plants Committee): Dr John DONALDSON (Africa), Mr Zulmukshar SHAARI (Asia), Dr Marga C.M. WERKHOVEN (Central and South America and the Caribbean), Dr Jan DE KONING (Europe), Dr Patricia Dolores DÁVILA ARANDA (North America), Dr Greg LEACH (Oceania).

Experts (nominated in consultation with the Chairman of the Criteria Working Group): Mr Steven BROAD (United Kingdom), Prof. Doug S. BUTTERWORTH (South Africa), Mrs Sara OLDFIELD, (United Kingdom), Dr Grahame WEBB (Australia).

FAO: Dr Kevern COCHRANE

ITTO: Dr Paul P.K. CHAI

Secretariat: Dr Jim ARMSTRONG (Deputy Secretary-General), Dr Malan LINDEQUE (Chief Scientific Co-ordination Unit), Dr Ger VAN VLIET (Senior Scientific Officer, Flora).

#### First meeting of the Criteria Working Group

6. In accordance with the timetable in document Doc. 11.25, the Secretariat organized the first meeting of the Criteria Working Group from 2 to 4 August 2000, in Canberra, Australia.
7. The Secretariat is grateful to the Management Authority of Australia for hosting this meeting and for the valuable assistance provided, in particular for providing capable rapporteurs.
8. The current document constitutes the report of the first meeting of the Criteria Working Group, including recommendations to amend Resolution Conf. 9.24.
9. In preparation for the meeting, the Secretariat contracted IUCN and TRAFFIC International to prepare discussion documents on various subjects relevant to their expertise. Other discussion documents were received from FAO and members of the Plants Committee.
10. The documents concerned, numbered in reference to the relevant agenda item, can be consulted on the CITES web site ([www.cites.org](http://www.cites.org)).

#### Considerations and recommendations of the Criteria Working Group on Resolution Conf. 9.24

11. The considerations and recommendations of the Criteria Working Group are presented below for each of the current Annexes to Resolution Conf. 9.24.
12. Annex 1 to this document includes the text of the current Resolution Conf. 9.24 with proposed deletions in ~~strike through~~ and proposed new text in **bold**. Where appropriate, the Secretariat's comments are included in *italics*.
13. Annex 2 to this document contains a clean version of the proposed draft Resolution.
14. The Criteria Working Group reached consensual decisions on many of the issues discussed. However, in several cases it was not possible to draft new texts on which the Criteria Working Group could reach consensus. In these cases the Secretariat was requested to draft appropriate texts, within the context of the general agreement reached. These cases are clearly stated in this document<sup>1</sup>.
15. The Criteria Working Group also requested the Secretariat to incorporate all relevant changes and additions resulting from the adoption of Resolutions and Decisions approved by the Conference of the Parties at its 10th and 11th meetings. These are discussed in the last paragraphs.

#### Preamble

16. No changes to the preamble resulted from the review of the Resolution or from the recommended amendments of its Annexes.

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<sup>1</sup> *Text drafted by the Secretariat was circulated to all members of the Criteria Working Group. Comments received have been incorporated to the extent possible. However, it should be noted that the version contained in this document does not necessarily reflect a consensus agreement of the Criteria Working Group.*

### The operative part

17. The only element of the operative part of the Resolution that was discussed by the Criteria Working Group was the definition of "is or may be affected by trade". The current text of paragraph b) only refers to the fact that, when it can somehow be demonstrated that the 'species'<sup>2</sup> is in trade, the definition has been met. However, the text of the Convention clearly implies that such trade should also have a negative effect on the status of the 'species', because of the use of the word 'affected'. The Secretariat was requested to draft new wording.
18. It is proposed to amend the text of paragraph b) as follows:
- b) a 'species' "is or may be affected by trade" if:
- i) it is known to be in international trade, and that trade has a detrimental impact on the status of the 'species'; or
  - ii) it is probably in international trade, although conclusive evidence is lacking, and that trade has a detrimental impact on the status of the 'species'; or
  - iii) there is a potential international demand, and any international trade would have a detrimental impact on the status of the 'species'; or
  - iv) it would probably enter international trade, with a detrimental impact on the status of the 'species', were it not subject to Appendix-I controls.
19. Other proposed changes to the operative part, resulting from discussions on other parts of the Resolution, are discussed under the relevant subsections below (see paragraphs 29-31, 45, 46-48, 51-53 and 73-74).

### Annex 1 of Resolution Conf. 9.24

20. Several documents considered by the Criteria Working Group dealt with the application of the current criteria. These related to the review of the Appendices by the Plants Committee and the Animals Committee and to a study regarding their applicability to tree 'species'. The Criteria Working Group agreed on the basic structure and contents of Annex 1, although refinement may be needed for some of the definitions, notes and guidelines. It should however be noted that not all reviews of animal 'species', initiated by the Animals Committee were available to the Criteria Working Group. These will be provided to its members as they become available. Also it was noted that the current criteria had not been applied to any commercial fisheries stocks and hence, their applicability to such stocks could not be ascertained. The discussion on Annex 1 in the Criteria Working Group therefore mainly focused on the principles of this Annex.
21. A more logical sequence of the criteria was suggested with first the distribution criterion (currently criterion B), then the population size criterion (currently criterion A) and finally the decline criterion (currently criterion C). The sequence of these three criteria has been amended.
22. The Criteria Working Group was of the opinion that criterion D could be deleted, and incorporated in Annex 2a on criteria for the inclusion of 'species' in Appendix II. It was suggested that this criterion could be used in cases where there was substantial illegal trade and stringent international controls were needed to eradicate it illegal trade. Inclusion in Appendix II with a trade prohibition or restriction was felt to be the preferable option (see also paragraph 41 below).
23. Current criterion A refers to the 'number of individuals', without specifying what is meant by 'individual'. Several animal and plant 'species' produce large amounts of offspring of which only a relatively small

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<sup>2</sup> In the discussions the participants noted that there could be some confusion resulting from the use of the word 'species', as defined in Article I of the Convention, and the use of the word in its biological context. It was therefore agreed that, when the word 'species' was used in its CITES definition, it would be placed in inverted commas.

part contributes to the recruitment of the 'species'. The Criteria Working Group therefore recommended that this criterion refer to 'mature individuals' and that this term be defined in Annex 5. While making this recommendation, the Criteria Working Group was aware of the fact that this may cause some problems when applied to particular plant 'species', but it believed that these problems could be solved by appropriate wording in the definitions.

24. Subcriterion i) of the current criterion A refers to decline. Because there is a separate criterion on decline (criterion C) it was felt that this subcriterion was redundant and should be deleted.
25. Current criterion C refers to 'decline' but it is not clear what measure of decline is referred to. Only when consulting Annex 5 can one conclude that the decline has to be substantial. The Criteria Working Group therefore recommended that the term 'marked decline' be used and that the related paragraph in Annex 5 be amended accordingly.
26. The Criteria Working Group discussed in some detail the new approach developed by IUCN to determine how decline should be measured for the determination of its categories of threat (cf. Document CWG1-3.4). The Criteria Working Group agreed that this approach was a very sensible one, and recommended that it be included in the relevant section of Annex 5 on definitions and guidelines, but amended as appropriate, to better reflect CITES purposes (see paragraphs 69-71 below).
27. While discussing criterion C in more detail, the Criteria Working Group agreed to amend criterion Cii), fourth indent, to read:
  - decreasing recruitment/reproductive success or reproductive potential.
28. Similarly, the fifth indent of paragraph B. iv) of the same Annex should be amended to read:
  - recruitment/reproductive success or reproductive potential.
29. The Criteria Working Group was further of the opinion that the collection and use of suitable biological data and their quantitative evaluation to determine the status of and/or trends in a population should be encouraged. When appropriate biological data were available these should be used for e.g. stock assessments and population viability assessments (PVAs), because these might have substantial advantages over less rigorous methods. At the same time the Working Group recognized that misleading outcomes might be generated by using inadequate or erroneous data, and that PVAs may be imprecise.
30. Although the Criteria Working Group would like to encourage the collection of data, it should not restrict the Parties from taking action when the collection of data is currently not possible.
31. The Criteria Working Group agreed that the following paragraph should be added to the operative part of the Resolution, after the RESOLVES referred to in paragraph 58 below.

ENCOURAGES Parties, when sufficient and relevant biological data are available, to include a discussion of appropriate quantitative analysis in the supporting statement of an amendment proposal.

32. Related amendments have been included in the relevant parts of Annex 6, describing how these analyses should be presented.

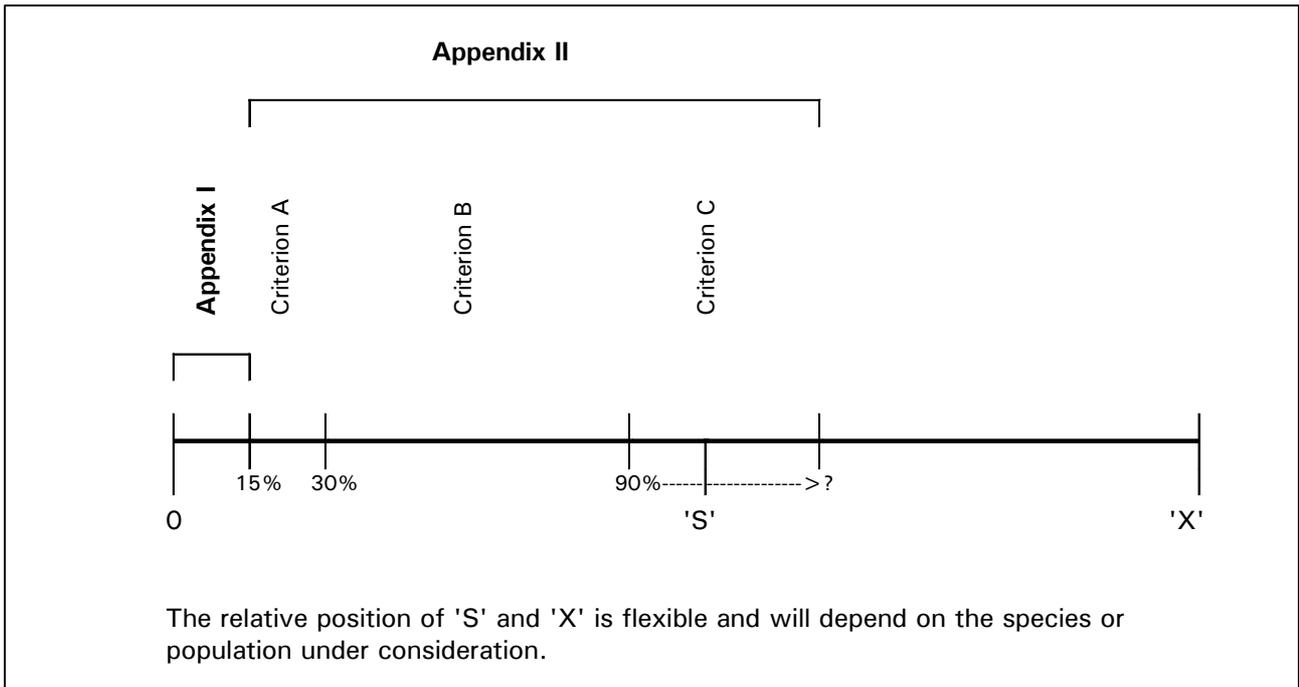
Annex 2a of Resolution Conf. 9.24

33. The Criteria Working Group agreed that there was a need to develop more substantive criteria for the inclusion of 'species' in Appendix II. It discussed various options to achieve this aim. Some participants expressed the view that clearly-defined biological criteria, as used for Appendix-I listings, should also be developed for Appendix-II. Others believed, however, that this would not be workable and difficult to implement by many of the range States concerned, and that the criteria should be flexible.

34. The Criteria Working Group discussed several models that could be used on a general basis for all taxa, and largely supported a descriptive approach, summarized here by the Secretariat as follows:
35. On a horizontal axis one can depict the population size of a given 'species', from '0' (zero) on the left to a 'pristine' population size 'X' on the right. This 'pristine' population size does not necessarily reflect the ideal population size from the past, or the current one, or the goal of current management. The value of 'X' has to be determined on the merits of the best scientific data available for each individual 'species' under consideration (see the graph after paragraph 43 below).
36. After determining the relevant parameters for such a line, it is possible to evaluate the effect of e.g. volumes of international trade, population decline, habitat reduction or other factors impacting on the 'species' as a function of the size and status of the population.
37. Considering these parameters one can for each 'species' establish the point on the population line at which a more or less optimal harvest is possible. The optimal harvest would not cause a decrease in the population size detrimental to the 'species'. This point is labelled 'S'.<sup>3</sup>
38. Looking at the 'population line', the part situated to the right of point 'S' is normally of no immediate concern to CITES, because international trade should not have a negative impact on the survival of the 'species'. This part is covered by the text proposed below in paragraph 45. However, there may still be instances to the right of 'S' that would require continuous international co-operation for regulating international trade (indicated in the graph as '-----?') (also see paragraph 43 below).
39. The part to the left of 'S' can be partitioned into percentages indicating degrees of security, from zero percent (extinct) to 100% (no problem, point 'S'). These percentages are used here only as an example, to illustrate the considerations by the Criteria Working Group.
40. The lowest section (i.e. 0% to 15%), where population reduction has been the greatest and the 'species' is least secure, is normally covered by the criteria for inclusion of 'species' in Appendix I.
41. The section closest to this (i.e. 15% to 30%) is an area of great concern. This area is covered by the newly-proposed criterion A of Annex 2a (see paragraph 44). This approach will also allow the seamless incorporation of current criterion D of Appendix I into the Appendix-II criteria (see paragraph 22 above).
42. The next section (i.e. 30% to 90 %) is typically the area in which a 'species' qualifies for inclusion in Appendix II. This is covered by the text of the proposed new criterion B in Annex 2a (see paragraph 44).
43. The area around point 'S' is an area where normally no immediate action is required. However, there may be cases where an Appendix-II listing could be useful, in particular when requested by range States, and this is covered by the recommended new criterion C in Annex 2a (see paragraph 44).

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<sup>3</sup> The choice for the more neutral reference 'S' (seemingly safe) is made on purpose, to avoid that this explanatory model is too explicitly related to existing models for e.g. fisheries. As mentioned in the text, point 'S' has to be determined for each 'species' individually, and the Appendix-II criteria need to be interpreted accordingly. For fisheries, 'S' could very well be interpreted as the maximum sustainable yield (MSY).



44. The following draft text is proposed for the criteria to include 'species' in Appendix II.

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

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), any of the following criteria is met:

- A. It is known or can be projected that unless the international trade in the 'species' is subject to strict regulation, it is likely to satisfy one or more of the biological criteria for inclusion in Appendix I in the near future; or
- B. It is known or can be projected that strict regulation of international trade is required to ensure that harvests of specimens from the wild for international trade do not negatively influence the status of the wild populations to such a degree that criterion A above would apply; or
- C. An Appendix-II listing will enable any Party, in particular range States of the 'species', to enable the use of the 'species' to a level that can be maintained in perpetuity, and for which international co-operation is necessary.<sup>4</sup>

Issues related to the discussion on the inclusion of 'species' in Appendix II

45. From the explanation above on the approach taken by the Criteria Working Group, it is clear that there is an area of international trade in wild fauna and flora that does not necessarily require involvement of the provisions of the Convention. It is therefore proposed to include a new RESOLVES immediately before the fourth RESOLVES of the operative part of Resolution Conf. 9.24 that reads as follows:

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<sup>4</sup> *Note from the Secretariat: depending on how one reads this criterion, it could also be interpreted as referring to an Appendix-III listing. It could therefore be very useful to consider in this context when an Appendix-III listing would be preferable to an Appendix-II listing, or vice versa.*

Parties should avoid the inclusion in Appendix II of 'species' that are in international trade, but managed in such a manner that there is a negligible risk that, in the near future, the 'species' will qualify for inclusion in Appendix II under the provisions of Annex 2a to this Resolution.

46. The Criteria Working Group also discussed the need to, in certain cases, assess the risks associated with a listing before proposing or agreeing to the inclusion of a 'species' in Appendix I or II as:
- listing might draw attention to a 'species', thus creating the possibility of a detrimental increase of international trade; and
  - the possibility that, after having included a 'species' in Appendix I, no further conservation action would be taken in the wrong belief that the listing as such has solved the conservation concern(s).
47. Regarding the issue referred to in the first indent above, proof to substantiate this has never been provided (and is probably difficult to provide). One can equally argue that this is not true or could also apply to the delisting of 'species' or to the mere suggestion or intention to propose the inclusion of a 'species'<sup>5</sup>. Although the Criteria Working Group did not provide wording to cover this issue, several members felt that it would warrant further discussion.
48. Text to cover the issue referred to above is offered below, and could be included as an RESOLVES or RECOMMENDS in the operative part immediately after the new text referred to in paragraph 45 above, or in Annex 4 to this resolution.

A 'species' should normally not be included in Appendices I or II when the risk of a detrimental increase in trade as a result of the listing is considered to outweigh the conservation benefit of the listing.

49. The Criteria Working Group briefly discussed the possibility that a 'species' be proposed for inclusion in Appendix II, as has been the case at several recent meetings of the Conference of the Parties, as a means to enable the regulation of international trade which is not otherwise possible under national legislation. The Convention, however, was not designed for this purpose, and the Conference of the Parties has regularly discussed the need for Parties to develop adequate national legislation for the purpose concerned (cf. Resolutions Conf. 8.4 and Conf. 11.17 and relevant decisions).
50. The Criteria Working Group, however, did not discuss any possible draft text on this issue. This issue warrants further discussion.
51. The Criteria Working Group further briefly discussed text related to situations when proposals for transferring a 'species' from Appendix II to Appendix I were submitted for those 'species' which are also subject to a review under the provisions of Resolution Conf. 8.9 (Rev.).<sup>6</sup>

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<sup>5</sup> *Note from the Secretariat: a specific reference to this issue has already been included in Resolution Conf. 9.18 (Rev.), first RECOMMENDS, paragraph b)i).*

<sup>6</sup> *Note from the Secretariat: one of the purpose in this review is for the Animals or Plants Committees to formulate recommendations for remedial measures for those 'species' for which trade is believed to have a detrimental effect. These recommendations relate to particular range States, not to all of them. Also, considering the preamble to Resolution Conf. 8.9 (Rev.), this is done with the intention that all Parties benefit from management of Appendix-II 'species' that ensures the continued availability of these resources. An Appendix-I listing of a 'species' under review might therefor, in some cases, be counterproductive. The work of the Committees relates in particular to range States trading in the 'species' concerned at significant levels, not to range States from which the trade is prohibited or of no immediate concern. In the event that one of the Committees decides that there is need for urgent action, the provisions of the Resolution provide for the Standing Committee to recommend immediately that Parties no longer permit imports of specimens of the 'species' from the range State(s) concerned. In addition, the Conference of the Parties always has the option to instruct the Standing Committee to implement a recommendation to the Parties to not permit the import of specimens of the 'species' concerned. Repeal of such a recommendation would then not have to wait until the next meeting of the Conference of the Parties.*

52. There was some difference of opinion among the members of the Criteria Working Group on whether this was an issue of relevance to the Resolution on amendment of Appendices I and II. Some argued that proponent Parties may not be aware of the full details of the deliberations by members of the Animals Committee or the Plants Committee. Others argued that the deliberations within either Committee and particular Range States should not be interfered with other Range States. No text was suggested by the Criteria Working Group.

53. The following text is offered to stimulate discussion on the subject and, if approved, could be included in the operative part of the Resolution under RESOLVES following the text proposed in paragraph 48.

‘Species’ subject to review under the provisions of Resolution Conf. 8.9 (Rev.) should not normally be transferred to Appendix I, or being subjected to a zero quota established by the Conference of the Parties:

- a) until the completion of the review process has demonstrated that there is a need to do so; or
- b) unless the proponent demonstrates why the procedures outlined in Resolution Conf. 8.9 (Rev.) are not sufficient and an Appendix-I listing is warranted.

#### Precautionary measures

54. The Criteria Working Group was of the opinion that the current Annex 4 does not contain sufficiently-clear references to the possible delisting of ‘species’ from Appendix II.

55. The text of Article II, 2(a) of the Convention refers to ‘unless trade in the ‘species’ is subject to strict regulation’. Some participants noted, however, that when a ‘species’ is adequately managed, it will always have to be subject to strict regulation, at least of the harvest, with or without trade regulation. In literally applying the text on the need for strict regulation, the impression could be given that it would never be possible to delete a ‘species’ from Appendix II, because of this phrase.<sup>7</sup>

56. The Criteria Working Group therefore proposes that the following paragraph be included in Annex 4, to replace the current paragraph B4.

A ‘species’ should be deleted from Appendix II when it no longer qualifies under the provisions of Annexes 2a and 2b of this Resolution and therefore implementation of the provisions of Article IV of the Convention is no longer required.

#### Annex 2b of Resolution Conf. 9.24

57. Participants in the meeting commented that the text in Annex 2b is vague and needs clarification. It was agreed that the text be rewritten to require specification of the similarity that exists between ‘species’. Participants also felt the need to carefully consider the practical feasibility of distinguishing parts or products in trade, or the capability of enforcement officers to do so, when considering the inclusion of look-alike ‘species’.<sup>8</sup>

58. The following text is suggested to replace the current text in paragraph A of this Annex:

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<sup>7</sup> *Note from the Secretariat: the text of Article II 2(a) should be interpreted as meaning strict regulation under the provisions of the Convention and not as meaning something different.*

<sup>8</sup> *Note from the Secretariat: the text of the Convention allows for the exemption of certain parts and derivatives of plant ‘species’ included in Appendix II (Article I). Under these provisions various finished products can be excluded from the provisions of the Convention, and enforcement efforts concentrated on recognizable parts in trade (e.g. roots of Panax quinquefolius and P. ginseng). Such provisions do not exist for fauna; all parts and derivatives are subject to the provisions of the Convention.*

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, is unlikely to be able to distinguish between them.

59. This formulation 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.
60. The current paragraph B in this Annex would, if the text above was adopted, provide a mechanism by which it is not necessary to explain why these other 'species' should be included. The purpose of the listing could well be dealt with in the context of the proposed new text for paragraph A, thus making paragraph B redundant. It should therefore be deleted.

#### Annex 3 of Resolution Conf. 9.24

##### Split-listing

61. The Criteria Working Group noted that the current recommendation against split-listings was not justifiable, and that a new formulation should state more clearly the potential benefits as well as the potential disadvantages. Split-listings have been made by the Conference of the Parties as part of clearly-defined conservation programmes such as ranching of Nile crocodiles or the shearing of vicunas.
62. The Secretariat suggests the following new draft text.

Listing of a 'species' in more than one appendix should be avoided unless it relates to the down-listing 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.

When split-listing does occur, this should generally be on the basis of national or continental populations, and should not result in some populations being outside the Appendices.

63. The second and third paragraphs of the current text on split-listing can be maintained.

##### Higher taxa

64. No specific recommendations were made to amend this section, although issues related to higher taxonomic listings were briefly discussed in relation to other parts of this Resolution, in particular in relation to the look-alike problem. These issues have been taken care of under the proposed text for Annex 2b.
65. The current text on higher taxa only relates to how the taxa concerned should be included in the Appendices, and as such does not pose problems.
66. During the discussions, brief reference was also made to possible problems resulting from taxonomic changes, in particular at the level of genera or higher taxonomic units. The Resolution on standard nomenclature (Resolution Conf. 11.21) contains specific instructions to the Nomenclature Committee and others on how to deal with such changes in order to avoid undermining the original intent of the listing and 'species' are unwittingly included in or excluded from the Appendices. There is no need to include a reference to this in this Resolution.

#### Annex 4 of Resolution Conf. 9.24

67. In reviewing the text of the current Resolution, it was noted that wording referring to the need to "act, in case of doubt, in the interest of the conservation of the 'species'" was included in three places:

- under the last RECOGNIZING in the preamble to this Resolution;
- under the first RESOLVES of the operative part; and
- in paragraph A of Annex 4.

68. The Criteria Working Group agreed that paragraph A in Annex 4 was redundant, and could therefore be deleted. This recommendation does not imply that the Criteria Working Group felt that this principle was not an important one.

Annex 5 of Resolution Conf. 9.24

69. The Criteria Working Group did not attempt to discuss the current definitions, because it was of the opinion that such a discussion could only be useful when, after consultations with Parties and discussions in the joint meeting of the Animals and Plants Committees, the terms which require new definitions become more apparent.

70. However, the Criteria Working Group agreed on including the new IUCN approach on decline (proposed to be called 'marked decline) as a guideline in the definition of it.

71. The texts in the box below, as well as the graphs, have been taken from a document prepared by IUCN (see Document CWG1-3.4) to illustrate the different types of decline. Further discussion is needed on how these various types of decline could be incorporated in Annex 5 of this resolution as guidelines to the Parties. For this reason the Criteria Working Group is seeking comments from the Parties on this approach.

**Figure 3.** Different kinds of population decline used in the decline criterion. Each graph shows population size declining over time (black solid line) and the decline rate measured as number lost over the previous 10 years as a % of the starting number (grey solid line, indicated with an arrow). -t and +t represent the past and future points where assessment is made compared to the present, represented by a solid vertical line.

(a) a constant number of individuals are lost in each time period; (b) a constant proportion of individuals are lost in each time period; (c) a declining proportion are lost in each time period; (d) an increasing proportion are lost in each time period.

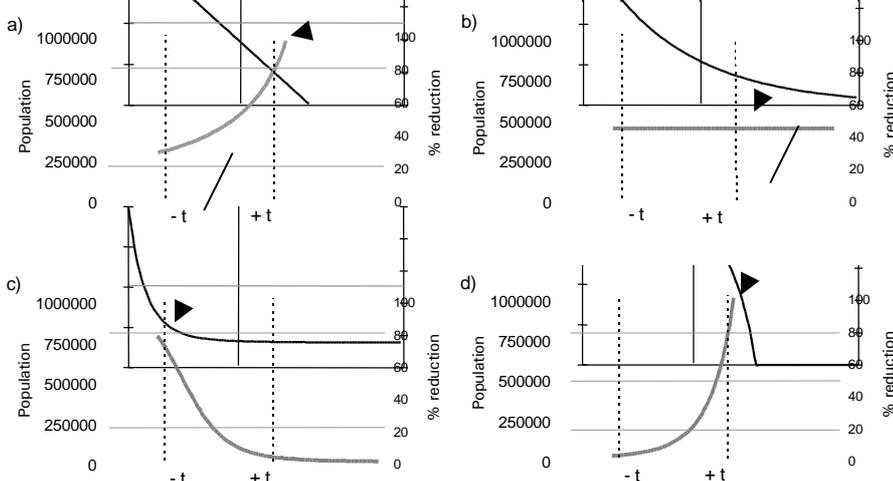


Figure 3(a) shows a population that is declining by a constant amount each year so that as it becomes smaller the decline rate increases. This might be the situation where over-exploitation, interspecific competition or predation led to population reduction, but the amount of extra mortality was constant, perhaps related to the size of the predator or competitor population. Here, past decline rates allow the species to qualify at Vulnerable (decline >20%), but future declines projected to continue on the same basis give an Endangered (>50%) categorisation. If declines continued, this population would soon qualify for Critically Endangered (>80% decline), before going Extinct.

In Figure 3(b) the extra mortality caused by the threat is a constant proportion of the population size (i.e. as the population size decreases the amount of extra mortality decreases proportionately and the decline rate is constant). This might be the case where the effects of exploitation, predation or competition are directly related to the abundance of the species. The population in Figure 3(b) always qualifies for Vulnerable, and will never qualify for any higher threat category under decline criterion, until it goes Extinct. In practice, a species showing this pattern would qualify for higher threat categories under criteria B, C or D once the population size or the geographic range reached low enough levels to meet the thresholds in those categories.

The example in Figure 3(c) shows another case where the extra mortality declines over time, but here the decline rate is decreasing. This means that ultimately the extra mortality ceases altogether and the population can stabilise and may even recover. The decline rate progressively decreases so that the species that originally qualified as Critically Endangered moves through Endangered and Vulnerable until eventually it is non-threatened. This pattern is expected under a variety of situations - most commonly this is the intention of managed harvesting programmes which reduce the population size until the density at which productivity is maximised is reached, the harvest is then stabilised at a sustainable level and there should be no further decline in population (Milner-Gulland & Mace, 1998).

Finally, Figure 3(d) shows the population depletion and decline rate for a population where the rate of decline is increasing exponentially over time. This situation is not unlikely, especially under habitat fragmentation and for species that provide consumer goods of high economic or social value where the value increases as the product becomes rarer or consumer tastes increase demand. In addition, increased decline with smaller populations might also be expected where inverse density dependence (known as Allee effects or depensation) is operating (Courchamp, CluttonBrock & Grenfell, 1999; Myers *et al.*, 1995). In this situation the decline rate increases exponentially, so that in a very short space of time the species moves from non-threatened through Vulnerable, Endangered and Critically Endangered until it goes Extinct. In practice this pattern has been seen in populations of African elephants (*Loxodonta africana*) and black rhinoceros (*Diceros bicornis*) (Leader-Williams, Albon & Berry, 1990; Milner-Gulland & Beddington, 1993), although in these cases the rate of decline slows at very low population sizes so that the species may stabilise at a new but very low level, rather than go extinct.

The four simple kinds of decline dynamics discussed here are obviously a small subset of the possible patterns that might be seen in real cases, but they illustrate some more general points about the decline criterion. The array of plausible patterns of decline and the requirement to apply the criteria precautionarily mean that the choice of threshold values is a difficult balance between quantities that will detect species in decline well before they reach critically low levels and quantities that will often falsely list species that are nearing the end of a decline that is slowing and will soon cease.

#### Annex 6 of Resolution Conf. 9.24

72. The Criteria Working Group agreed that the format should be improved, to better track Annexes 1-5 of the listing criteria resolution. It was agreed that there is some information currently required in Annex 6 that is not really necessary, while there is other information that would allow Parties to better evaluate proposals submitted for their consideration. It was also agreed that a clearer format would benefit range countries wishing to submit proposals, particularly Parties that had never submitted proposals. A small working group of three members of the Criteria Working Group was established to draft the attached proposed revision of Annex 6. The CWG endorses submitting this proposed revision for the comments of the Parties and the consideration of the Joint meeting of the Animals and Plants Committee. Some key revisions include:

- Requiring a proponent to clearly specify which of the criteria are met by the proposal, or which are no longer satisfied in the case of a removal from the Appendices or a transfer from Appendix I to II;
- Requiring elaboration of annotations, pursuant to Resolution Conf. 11.20;
- Providing for an overview/executive summary of the proposal;
- Reorganizing the sections of the format to more closely follow the Annexes of the criteria resolution.
- Reorganizing existing sections into a new section for status and trends, to include population size, population trends, population structure, geographic trends, and habitat trends.
- Eliminating unnecessary or irrelevant items; and
- Consolidating and eliminating redundancies;

#### Amendments related to Decisions or Resolutions adopted by the Conference of the Parties

73. The current resolution on ranching (Resolution Conf. 11.16) contains a separate section related to the submission of amendment proposals. Appropriate reference to this Resolution is made in Annex 4, current paragraph B2e), and there is no need for further amendments.

74. A reference to the Resolution on the use of annotations in Appendices I and II (Resolution Conf. 11.20) can best be included in the operative part. It is recommended to insert before the last RESOLVES the following text:

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.

Amendments proposed by the Secretariat, not discussed in the Criteria Working Group

75. Paragraph B3 of Annex 4 on precautionary measures refers to the need for the withdrawal of a reservation by a proponent Party, in case of a proposal to transfer a 'species' from Appendix I to Appendix II with an export quota. However, the precautionary measures also permit the transfer of a 'species' from Appendix I to Appendix II without a quota.
76. It is therefore recommended to delete the words 'with an export quota'.
77. The last RECOMMENDS of the operative part will be redundant after the 12th meeting of the Conference of the Parties and should therefore be deleted. If the Parties envisage a next review of the criteria after that meeting, the paragraph can be maintained with an amendment to the number of the Conference of the Parties at which that second review should be completed.