

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



Twenty-sixth meeting of the Plants Committee  
Geneva (Switzerland), 5 – 9 June 2023

Thirty-second meeting of the Animals Committee  
Geneva (Switzerland), 19 – 23 June 2023

Appendices of the Convention

Nomenclature matters

Botanical and zoological nomenclature

NOMENCLATURE OF APPENDIX-III LISTINGS

1. This document has been prepared by the specialist on botanical nomenclature of the Plants Committee and the specialist on zoological nomenclature of the Animals Committee, with assistance from the Secretariat.\*
2. At its 19th meeting (CoP19; Panama City, 2022), the Conference of the Parties revised Decision 18.313, directed to the Animals and Plants Committees, to read as follows:

***Directed to the Animals and Plants Committees***

**18.313 (Rev. CoP19)** *The Animals and Plants Committees shall, taking into consideration the current guidance in Resolution Conf. 12.11 (Rev. CoP19) on Standard nomenclature, paragraph 2 g), evaluate how nomenclature changes affect Appendix-III listings and propose further guidance and recommendations as necessary, that address how such nomenclature changes are to be handled, for consideration by the Standing Committee.*

3. The particular complications created to the nomenclature of species listed in Appendix III by progress in taxonomic science were outlined in paragraph 9 of the joint report of the 30th meeting of the Animals Committee and the 24th meeting of the Plants Committee ([AC30 Doc. 31/PC24 Doc. 26](#)). At its 70th meeting, the Standing Committee included this report in its considerations, and among others proposed a draft Decision for CoP18, which was adopted as Decision 18.313.
4. The topic was further described for the 31st meeting of the Animals Committee and the 25th meeting of the Plants Committee, held online, in document [AC31 Doc. 39/PC25 Doc. 33](#) and its addendum, and the outcome of deliberations at the meeting were reported to the Standing Committee in document [SC74 Doc. 6](#) (paragraphs 38–40) and to the 19th meeting of the Conference of the Parties in document [CoP19 Doc. 84.1](#) (paragraphs 45–48).

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

5. The present document provides an updated outline of how nomenclatural changes affect Appendix III listings.

#### Background: Taxonomy and nomenclature

6. The findings of taxonomy, the science of what constitutes a species and how different species are related to each other, have direct results on the nomenclature of those species, i.e., by what name these species are known in biological science and in the wider world beyond science, including national legislation and conventions such as CITES.
7. Taxonomy examines the similarities among, and differences between, populations of similar organisms. Based on such examinations, taxonomists may conclude that two populations represent the exact same species, or slight differences between the populations may lead to a conclusion that the populations are the same species, but belong to different subspecies, or that the two populations are different enough to warrant recognition as separate species. Moreover, additional information may lead a taxonomist to conclude that one traditionally recognized species actually represents two or more species and split the species into multiple species; or conversely, a taxonomist may conclude that the differences thought to indicate the separation of two species do not stand up at closer examination, and thus will synonymize (or 'lump') the two former species under one formal name.
8. The characters on which taxonomists judge the degree of similarity or difference between populations include such aspects as reproductive compatibility, morphology (size, physical characteristics, colouration), vocalization and other behaviours, geographic and habitat occurrence, and differences in DNA, proteins and other molecules. With increasing resolution of the tools and analytical techniques available to taxonomists, and theoretical advances on species concepts, the general trend in recent decades has been towards increased recognition of additional species: What was historically considered a single, wide-ranging species showing some variability across that wide range may, by modern taxonomic insights, equally well be considered a set of related, but separate, species occurring in adjoining geographical areas. From a CITES context it is pertinent to realize that such sets of species are usually quite similar by external appearance (which is usually why they were considered a single species previously) and may thus represent identification challenges when in trade.
9. Whereas the science of taxonomy is primarily occupied with the definitions and interrelationships of species, the decisions to determine what scientific name to apply to a species are governed by the rules of nomenclature. While botanical and zoological nomenclature each have their own extensive set of rules governing the proper and valid application of names, the fundamental rule is that the oldest name for a species should be used. Thus, when two formerly recognized species are combined into a single species, the oldest of the two names used for the two former species will continue to be used as the valid/correct name for the combined species, while the younger of the two initial names becomes a synonym of the valid/correct (older) name (zoological nomenclature uses 'valid', while botanical nomenclature uses 'correct').

#### The effects of taxonomic-nomenclatural changes on species listed in CITES Appendix III

10. Trade in specimens of species listed in Appendix III is conducted in accordance with Article V of the Convention. Resolution Conf. 9.25 (Rev. CoP18) on *Implementation of the Convention for species in Appendix III* provides further recommendations on the implementation of the Convention for species in Appendix III. Including a species in Appendix III is a unilateral decision by a Party that does not require the agreement of other Parties in the listing process; it is a voluntary action by an individual Party that wishes trade in its own population of a particular species to be regulated and needs the cooperation of the Parties to monitor and control trade in the species. When listing a species or higher taxon in Appendix III, the listing Party may choose to place only its own national population(s) in Appendix III, or the entire species or higher taxon, in which case the Appendix III listing affects other range state Parties. Consultation with other range state Parties, and consideration of their feedback, are recommended in Resolution Conf. 9.25 (Rev. CoP18), subparagraphs 1.c) and d) since a listing in Appendix III means that other range State Parties are obliged to issue documentation for trade in a species they may not consider to need international trade controls. The documentation requirements for export or re-export of Appendix III specimens from Parties that have or have not listed that species in Appendix III are included in Annex 2 of Res. Conf. 9.25 (Rev. CoP18).
11. The implementation of standard nomenclature for CITES, including the process of implementing taxonomic changes recommended by the scientific community, is governed by Resolution Conf. 12.11 (Rev. CoP19) on *Standard nomenclature*. To summarize, changes in the names of species updated in Appendices I and II by

adoption by the Conference of the Parties of updated nomenclatural standard references; the effect of such changes is to maintain the CITES Appendix status of the specimens and populations concerned, irrespective of the updated name applied. In other words, if Species Y in figure 1.1 is split taxonomically as in figure 1.3, Species X, Y and Z all remain listed in the same Appendix as the original Species Y. Conversely, when species that are in different Appendices, or not listed, are synonymised / merged / lumped, only the populations that were in a particular Appendix will continue to be treated as subject to that Appendix. This usually occurs when species or subspecies listed in different Appendices are merged together as one species or subspecies, or when species are moved from an unlisted genus to a listed genus. Annex 4 of document CoP18 Doc. 99 provides a series of typical examples of the changes that occur in the Appendices and the Checklist of Species / Species+ database as a result of nomenclature updates without affecting the regulatory protocols in place for the populations and specimens concerned.

Figure 1: a theoretical example of three countries A, B, and C and the effects of taxonomic-nomenclatural splitting of a wide-ranging species.

1.1

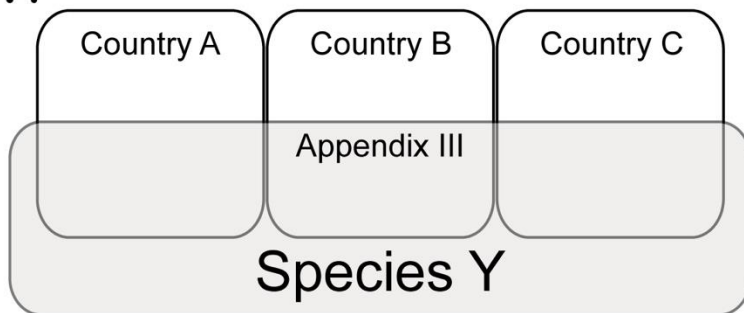


Figure 1.1 shows all three countries inhabited by a single wide-ranging species Y.

1.2

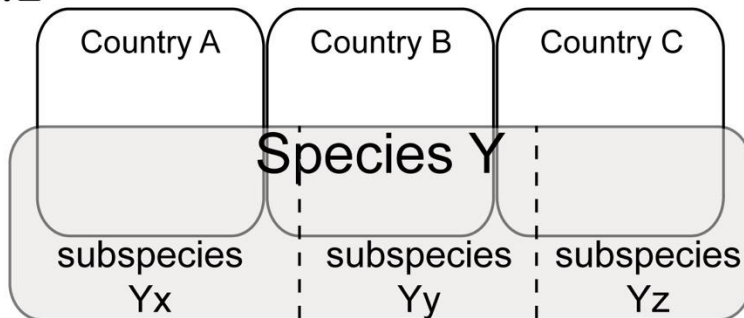


Figure 1.2 shows that taxonomic progress has recognized three subspecies among species Y, the typical subspecies Yy in Countries B and C, as well as subspecies Yx in countries A and B, and subspecies Yz endemic to country C.

1.3

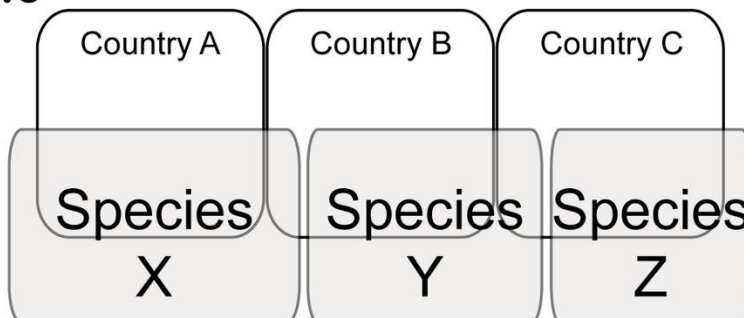


Figure 1.3 shows the same situation as 1.2 except that taxonomists have now concluded that former subspecies x and z deserve to be recognized as full separate species. As a result, Country A is inhabited by species X, Country B is inhabited by species X and species Y, and Country C is range country for species Y and Z.

12. Concerning nomenclatural changes relating to taxa in Appendix III, paragraph 2 g) of Resolution Conf. 12.11 (Rev. CoP19) recommends that 'if the Animals or Plants Committee proposes nomenclatural changes relating to taxa included in Appendix III, they should advise the Secretariat whether these changes would also result in changes in distribution that would affect the determination of which countries would be required to issue certificates of origin'.

13. In the case of species listed in Appendix I or II, the provisions of the Convention apply equally to all Parties, including the process to include, amend or delete species in the Appendices, and (with rare exceptions) apply equally to all populations of the species. But in the case of an Appendix III species, only a range state Party can include a species, and only the Party that included the species in Appendix III can delete or withdraw that species from the Appendix. Appendix-III listings of national populations create no impacts on other range state Parties, but Appendix III listings of a species in its whole range affect other Parties. A problem arises if a widespread species listed in Appendix III is divided into several closely related and similar species, some of which do not occur in the country that placed the original widespread species in Appendix III.
14. A practical example may help to illustrate the complexities that may result from a nomenclatural change concerning a species listed in Appendix III:

*Daboia russelii* (India). The Russell's Viper was included in Appendix III by India in 1984, with no geographic restriction. Thus the Appendix III provision to issue certificates of origin applies to all populations identified as *Daboia russelii*. These occur in Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Myanmar, Nepal, Pakistan, Sri Lanka, and Thailand, as listed in the adopted standard nomenclature reference for the species<sup>1</sup>. A taxonomic revision in 2007<sup>2</sup> argued that the species warrants splitting into two distinct separate species, being *Daboia russelii* inhabiting Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka, and *Daboia siamensis* occurring in Cambodia, China, Indonesia, Myanmar, and Thailand. If this nomenclatural change were to be adopted analogous to nomenclatural splits concerning species listed in Appendix I or II, then the species *Daboia siamensis* would be added to Appendix III. However, if one were to follow the intent of the original inclusion of Russell's Viper in Appendix III, then the restricted species *Daboia russelii* would be maintained in Appendix III, while the populations of Cambodia, China, Indonesia, Myanmar, and Thailand would now be recognised as *Daboia siamensis* and no longer be subject to Appendix III provisions.

15. The inclusion of a species in Appendix III originates from the identification by a range state Party that the species is subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation, and that it needs the cooperation of other Parties in the control of trade. It therefore appears reasonable to consider primarily any nomenclatural changes that concern the populations inhabiting the Party that included the species in Appendix III, and secondarily, or not at all, the nomenclatural changes that concern populations that occur outside the country that included the species.
16. It warrants highlighting that taxonomic-nomenclatural changes to a defined species listed in Appendix III can affect Parties other than the Party that included it in Appendix III in different ways. In cases where a widespread species is split (as in the *Daboia russelii* example above) and only the redefined species as occurs in that Party is retained in Appendix III, the Parties where the split-off species (e.g., *Daboia siamensis*) occurs will no longer be subject to the Appendix III provisions for the species. Conversely, in cases where two or more species are synonymised into one that is listed in Appendix III, the provisions to implement Appendix III may extend to additional Parties.
17. Over the years, the Nomenclature Specialist(s) of the Animals or Plants Committees have informed their respective Committees, in the documentation submitted for meetings of the Committees, when they have become aware of a change in the nomenclature of an Appendix III species that is broadly accepted in the scientific community. To date, such cases have generally been left 'pending' until an understanding was arrived at how such cases should be proposed for amendment.
18. In accordance with paragraph 2 g) of Resolution Conf. 12.11 (Rev. CoP19), the Secretariat should reach out to the Party that included the species in Appendix III to arrive at a nomenclaturally pragmatic solution that fulfils the regulatory needs of the listing Party. Such a revised listing of species in Appendix III would likely require an updated listing in compliance with Resolution Conf. 9.25 (Rev. CoP18) and the designation of an appropriate update of a nomenclatural standard reference defining the new species arrangement and its geographic distribution.

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<sup>1</sup> MCDIARMID, R. W., CAMPBELL, J. A. & TOURÉ, T. A. (1999): *Snake Species of the World. A Taxonomic and Geographic Reference. Volume 1*, Washington, DC. (The Herpetologists' League).

<sup>2</sup> Thorpe, R.S., C.E. Pook & A. Malhotra. 2007. *Phylogeography of the Russell's Viper (Daboia russelii) complex in relation to variation in the colour pattern and symptoms of envenomation. Herpetological Journal, Vol. 17: 209-218.*

19. Further thought is required on the possible extent, pathways and formality of the Secretariat's engagement with range state Parties in general and the Party listing the species in Appendix III in particular, as well as feasible interactions between range state Parties without creating undue administrative burden.
20. In this context, it is worth emphasizing paragraph 6 of Resolution Conf. 9.25 (Rev. CoP18), which '*URGES Parties having included species in Appendix III to review periodically the status of these species, seek assistance of the Animals or Plants Committee in undertaking the review mentioned in paragraph 5 of this Resolution, if necessary, and taking into account these guidelines and any recommendations of the Animals and Plants Committees, to consider the necessity to maintain the species in Appendix III.*
21. Finally, any nomenclatural changes concerning species listed in Appendix III should be justified by the use of a standard nomenclature reference. The Annex to Resolution Conf. 12.11 (Rev. CoP19) lists standard references as adopted by the Conference of Parties, based on documentation submitted 180 days before the start of the meeting. Any updated nomenclatural standard references for Appendix III species should ideally be communicated well ahead of this deadline (more than six months before the date of the meeting of the Conference of the Parties, according to paragraph 2. i) of Resolution Conf. 12.11 (Rev. CoP19)), which is far ahead of the recommendation in paragraph 3 of Resolution Conf. 9.25 (Rev. CoP18) that the intent to include a species in Appendix III be communicated to the Secretariat at least three months before a meeting of the Conference of the Parties.

### Conclusions

22. In conclusion, a slightly modified approach could be applied to nomenclature changes in Appendix III, as compared to the established practices when addressing nomenclatural changes in Appendices I and II [paragraph 2 f) of Resolution Conf. 12.11 (Rev. CoP19)], including consultation with the Animals or Plants Committees to determine if the change would alter the scope of protection for fauna and flora under the Convention. In those cases where nomenclature changes can lead to the inclusion or deletion of species or populations in the Appendices, the Secretariat could consult the Party that listed the species in Appendix III as well as other affected range States. Based on this consultation, Appendix III could be amended to reflect the nomenclature change. Alternatively, the Secretariat could inform the Party that listed the species in the Appendices about the nomenclature change and implications (if there is a change in scope) and invite the Party to consult with affected range States and to submit a request to the Secretariat to amend the Appendix III listing to reflect the nomenclature change. Similarly, in cases where the Party that included a species in Appendix III would no longer be a range State due to proposed nomenclature changes, the Secretariat should consult that range State Party in a timely manner to allow any changes to be published with the changes to Appendix I and II after each meeting of the Conference of the Parties in accordance with paragraph 2 b) and 3 of Resolution Conf. 9.25 (Rev. CoP18).

### Recommendations:

23. The Animals and Plants Committees are invited to:
  - a) review this document and make recommendations as appropriate, and
  - b) consider submitting an updated version of the present document to the Standing Committee for its consideration.