Original language: English AC33 Doc. 15.3

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



Thirty-third meeting of the Animals Committee Geneva (Switzerland), 12 – 19 July 2024

Compliance

Review of trade in specimens reported as produced in captivity

REVIEW OF RESOLUTION CONF. 17.7 (REV. COP18) ON REVIEW OF ANIMAL SPECIMENS REPORTED AS PRODUCED IN CAPTIVITY

- 1. This document has been prepared by the Secretariat, in consultation with the Chair of the Animals Committee and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC).
- 2. At its 19th meeting (CoP19; Panama City, 2022), the Conference of the Parties adopted Decision 19.63 on Review of Resolution Conf. 17.7 (Rev. CoP18) on Review of animal specimens reported as produced in captivity, as follows:

Directed to the Secretariat

- The Secretariat shall, in consultation with the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), produce a comparative analysis of the objectives and processes outlined in Resolution Conf. 17.7 (Rev. CoP19) on Review of trade in animal specimens reported as produced in captivity and Resolution Conf 12.8 (Rev. CoP18) on Review of Significant Trade in specimens of Appendix-II species, and draft recommendations on how these two Resolutions could become more streamlined and better aligned with each other, including possible amendments to one or both Resolutions, for consideration by the Animals and Standing Committees.
- 19.64 The Animals Committee shall review the report and draft recommendations from the Secretariat under Decision 19.63; and make its own recommendations for consideration by the Standing Committee.
- 19.65 The Standing Committee shall consider the report and draft recommendations of the Secretariat, the recommendations from the Animals Committee, and make its own recommendations, for consideration at the 20th meeting of the Conference of the Parties.

Comparative analysis

3. A comparative analysis of the two key CITES processes as called for in Decision 19.63 was made possible thanks to a generous contribution from Switzerland and was carried out by UNEP-WCMC in consultation with the Secretariat and the Chair of the Animals Committee. The Secretariat appreciates the support provided in this regard. The results of the analysis are presented in the Annexes to the present document. Annex 1 aims to highlight key similarities and differences in the Resolutions in terms of objectives and processes, including the criteria and methods used to select species and issues relating to drafting of recommendations directed to range States. Annex 2 contains for reference a table of the species selected for the review of animal specimens reported as produced in captivity at the 29th meeting of the Animals Committee (AC29; Geneva, July 2017) and the 32nd meeting of the Animals Committee (A32; Geneva, June 2023).

Summary of analysis

4. While Resolution Conf. 17.7 (Rev. CoP19) on Review of trade in animal specimens reported as produced in captivity and Resolution Conf. 12.8 (Rev. CoP18) on Review of Significant Trade in specimens of Appendix-II species are both based on an analysis of data in the CITES Trade Database, the two processes are quite different in terms of their scope and purpose. Resolution Conf. 12.8 (Rev. CoP18), hereafter referred to as the RST resolution, aims to ensure that international trade in Appendix-II listed species is sustainable and is not detrimental to the survival of species in the wild, while Resolution Conf. 17.7 (Rev. CoP19), hereafter referred to as the Captive-breeding resolution, aims to ensure that the trade in captive-produced animals is not having a detrimental effect on species in the wild. It applies to trade in Appendix-I and -II listed animal species. A comparison between the two Resolutions in terms of scope is presented in the table below:

Category	RST resolution [Resolution Conf. 12.8 (Rev. CoP18)]	Captive-breeding resolution [Resolution Conf. 17.7 (Rev. CoP19)]					
Appendix	II and I (only if subject to reservation)	I and II					
Taxonomic	Plants and animals	Animals only					
group							
Source codes	W, R, U, Y, no source specified and X	C, D, F, R					
used in trade	(specimens taken in the marine						
analysis	environment not under the jurisdiction						
	of any State)						
Purpose codes	All	All					
Years of trade	Five most recent years with CITES	At least five most recent years with					
data used in	trade data in the "summary output".	CITES trade data for criteria i) – iii), and					
initial analysis		three years for criteria iv) – viii)¹.					
Data Sources	CITES Trade Database	CITES Trade Database					
	IUCN Red List	IUCN Red List					
	Species+ (distribution, trade	Species+ (distribution, trade					
	suspensions)	suspensions)					
		Life history databases and literature					
		Expert opinion – taxonomic focus (e.g.,					
		DGHT for reptiles at AC32)					
		ZIMS (Species 360 for data on					
		specimens born/held in collections)					
CITES Trade	Direct trade (re-exports excluded)	Direct trade (re-exports excluded).					
database report		Criterion vi) on legal acquisition also					
type		considers indirect trade into the focal					
		country					

Source codes R (ranched) and F (born in captivity)

- 5. While the processes in the two resolutions generally focus on different source codes, the following issues concerning source codes R (ranched) and F² (born in captivity) have been identified:
 - a) Trade in ranched specimens is currently considered under both resolutions. Ranched specimens are taken from the wild (at a high-mortality life stage), so the requirements of Article IV clearly apply and accordingly RST is relevant. However, ranched specimens are also maintained in captivity to be reared to a marketable size, so the Captive-breeding resolution may be more suitable to address any compliance-related concerns issues relating to, for example, questionable annual production levels based on reported offtake or whether the correct source code is being applied.
 - b) The trade analysis for the selection of species under the Captive-breeding resolution includes consideration of source code F, while source code F is not in the scope of the RST resolution. Recommendations made by the Standing Committee under the Review of Significant Trade (RST) only concern trade covered by Article IV of the Convention (i.e., the export, re-export or introduction from the sea of specimens of species included in Appendix II), and not Article VII (the latter including specimens

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¹ For criteria see paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP19)

Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev. CoP19) as well as parts and derivatives thereof.

- of animal species bred in captivity). There is therefore a question as to whether source code F should be included in the trade analysis for RST.
- c) The main problem with including source code F in the selection outputs of the RST resolution is that the selection process would no longer solely be considering the trade impacting the species in the wild. In some cases, source code F is used rather than source code C because the specimens are not maintained in a controlled environment and do not therefore meet the definition in Resolution Conf. 10.16 (Rev. CoP19) on Specimens of animal species bred in captivity, despite there being no impact of trade on wild populations.

Exceptional cases

6. Stage 1 of both resolutions includes provisions for the inclusion of an exceptional case outside of the normal AC/PC selection process and timetable. For RST, an exceptional case needs to be accompanied with a justification including supporting documents and trade data analysis and is assessed and decided on by the relevant Scientific Committee, but for the Captive-breeding resolution, the case is assessed by either the Animals Committee or the Standing Committee. Where concerns are raised by the Animals Committee about a case under consideration for the Captive-breeding resolution, paragraph 2 d) specifies that the case can be referred to the RST as an exceptional case [i.e., paragraph 1 c) of the RST resolution (the text says para 1 d) erroneously)]. The RST resolution does not, however, refer specifically to the Captive-breeding resolution, and a reference could be made in paragraph 1 c) of the RST resolution that an exceptional case could include referral from the Captive-breeding resolution. Similarly, in Stage 3 of the RST resolution, it could be made clearer that cases could be referred to the Captive-breeding resolution where concerns relate to captive production systems.

Short and long-term recommendations

7. For RST, examples of possible short and long-term recommendations addressing specific problems were developed under the *Evaluation of the Review of Significant Trade*, and can be found in Annex 5 of document CoP17 Doc.33. These examples address specific problems relating to Article IV, including issues such as lack of knowledge on populations status, lack of management measures, as well as capacity-building. They were intended to assist the in-session working groups of the RST process to develop recommendations within the limited time available at the Committee meetings. As indicated in Annex 3 of the RST resolution, recommendations should be proportionate and feasible, as well as time-bound, measurable and transparent. It appears that the example list of recommendations for RST may be encouraging the Committees to select too many recommendations, placing disproportionate demands on range States. Therefore, it may seem prudent to review the list of possible RST recommendations before drafting a set of detailed recommendations that could be useful for implementing paragraph 2 j) of the Captive-breeding resolution.

Timelines / deadlines

- There are some inconsistencies between the deadlines outlined in the timelines in the RST and Captivebreeding resolutions. Based on the timeline for the RST process, recommendations are formulated at the second meeting of the relevant Committee meeting following the CoP, and range States are given specific time frames to respond. Short-term recommendation deadlines may be only 30 days (e.g., for establishment of a zero quota); while longer term actions (such as undertaking science-based studies, development of management plans etc.) are usually requested within 1 to 2 years. The 30 days deadline for short term recommendations may be too short as under paragraph 1 h) of the RST resolution, the Secretariat shall, within 30 days of the meeting of the Animals or Plants Committee, transmit these recommendations to the range States concerned. Short term recommendations need to take into account time for the Secretariat to transmit the recommendations to the range States. Longer term actions that relate to making of nondetriment findings and could include science-based studies to be conducted may be more difficult to implement given the capacity of the range State concerned. It is however noted that range States now have access to new Guidance on making Non-Detriment Findings (NDFs) developed under Decisions 19.132 to 19.134 (as outlined in document PC27 Doc. 16/AC33 Doc. 16). Range State responses are discussed at the next AC/PC (for which there are two meetings during the intersessional period). The RST process is therefore often not very expeditious.
- 9. In terms of the Captive-breeding resolution, any recommendations formulated by the Animals Committee are then endorsed and revised as needed by the next meeting of the Standing Committee. As a result, the transmission of the combined recommendations to the range State is therefore likely to be delayed by a number of months and could be more than six months depending on the timing of meetings. A consideration to address this delay could be to transmit recommendations of a scientific nature to the Party directly after

- the Animals Committee meeting, while other compliance related recommendations are referred to the Standing Committee and transmitted to the Party following the Standing Committee meeting.
- 10. It could also be worth considering adding a flow diagram to illustrate the steps and timelines of the Captive-breeding resolution as an Annex to the resolution, similar to that found in Annex 1 of the RST resolution.

Compliance and determination of whether recommendations are met

- 11. Concerning compliance and the determination of whether the recommendations are met by the Party concerned, the processes are different in the two resolutions. For RST, the Secretariat, in consultation with the AC/PC Members through the Chairs, determines whether the recommendations are met. For cases where the recommendations are considered to have been met, the relevant Party can be removed from the process, following consultation with the Chair of the Standing Committee, without further consideration by the Standing Committee.
- 12. In the case of the Captive-breeding resolution, implementation of the specific recommendations formulated are assessed by the Secretariat, after consultation with the Members of the Animals Committee through its Chair, followed by the Members of the Standing Committee through its Chair. Where the recommendations have been met, the Secretariat, following consultation with the Chair of the Standing Committee, notifies the Parties that the species-country combination was removed from the review process.

Differences in 'selection criteria'

- 13. The aim of the two resolutions differs and therefore different selection criteria are used. For RST, the selection criteria are all of a scientific nature. Some of the criteria in the Captive-breeding resolution concern science (falling within the mandate of the Animals Committee), while other criteria address compliance, and therefore fall within the mandate of the Standing Committee: i.e., iv) inconsistencies between source codes; v) apparent incorrect application of captive production codes; and vi) no evidence of lawful acquisition of parental breeding stock from non-range States. The Animals Committee may wish to consider if criteria iv), v) and vi) should be referred directly to the Standing Committee, without referral to the Animals Committee.
- 14. There are parallels with some criteria developed for the two resolutions. Both processes select cases where trade is considered to be "high volume" or where there has been a "sharp increase" in trade. Other criteria diverge between the two processes because they were developed to be specific to the differing objectives.

Breeding biology criterion in Resolution Conf. 17.7 (Rev. CoP19)

- 15. Under the Captive-breeding resolution, the Animals Committee is requested to select cases for review taking into account the breeding biology of the species under a new criterion adopted at CoP19, criterion vii) specimens produced as captive produced (source codes C, D and F), where the species are known to be difficult to breed in captivity. However, the resolution does not outline the precise metrics to be used to inform this criterion. The methodology for its application in the selection process was developed by UNEP-WCMC in consultation with the Secretariat and other experts and data holders on a trial basis for reptiles and amphibians at the 32nd meeting of the Animals Committee (AC32, Geneva, June 2023) as outlined in the Annex (and its Appendix 1) to document AC32 Doc. 15.1.
- 16. Species/country combinations met this criterion if direct gross exports reported as captive produced (source codes 'C', 'D' and 'F') during the most recent three years (2019-2021) exceeded a total threshold of 10 units, and either a) the taxon was categorised as hard to breed in captivity by taxonomic experts, or b) no animal specimens were known to be kept in captivity. Currently, under paragraph 2 h) of the resolution "The Secretariat shall also commission, if requested by the Animals Committee, a short review of the species concerned, in consultation with relevant countries and specialists, to compile and summarise known information relating to the breeding biology and captive husbandry and any impacts, if relevant, of removal of founder stock from the wild". If it is possible to include the breeding biology of species more comprehensively to inform the selection process in Stage 1, then these short reviews referred to in paragraph 2 h) may not be necessary, as this could be considered as duplication. However, given that at the present time, reasonably comprehensive data on "difficulty to breed" taxa are only available for reptiles and amphibians, it seems premature to consider any changes to the resolution at this time.

Secretariat's conclusions and suggested way forward

- 17. The Secretariat proposes a minor amendment to paragraph 2 d) of Resolution Conf. 17.7 on *Review of trade* in animal specimens reported as produced in captivity to amend an incorrect reference to a paragraph in Resolution Conf. 12.8 (Rev. CoP18).
- 18. The comparative analysis demonstrates that, while Resolution Conf. 17.7 (Rev. CoP19) on *Review of trade in animal specimens reported as produced in captivity* and Resolution Conf 12.8 (Rev. CoP18) on *Review of Significant Trade in specimens of Appendix-II species* appear to be similar, the two processes are quite different in terms of their scope, purpose and methodologies. In addition, experience with the captive-breeding review process is still relatively limited. In summary, it is the Secretariat's view that there is no need to submit substantial recommendations on streamlining the resolutions to the 20th meeting of the Conference of the Parties (CoP20) at this stage.
- 19. Alternatively, should the Animals Committee wish to continue with the process, the Animals Committee could consider proposing the following draft decisions to CoP20, to instruct the Animals Committee to review Resolution Conf. 17.7 (Rev. CoP19) and for the Animals and Plants Committees to review Resolution Conf. 12.8 (Rev. CoP18), taking into account the issues raised in this document and its Annex:

Directed to the Animals Committee, in consultation with the Secretariat

20.AA Taking into account the comparative analysis of the objectives and processes outlined in Resolution Conf. 17.7 (Rev. CoP19) on Review of trade in animal specimens reported as produced in captivity and Resolution Conf. 12.8 (Rev. CoP18) on Review of Significant Trade in specimens of Appendix-II species in document AC33 Doc. 15.3 and relevant discussions during the previous intersessional period, the Animals Committee shall, in consultation with the Secretariat, make recommendations to amend Resolution Conf. 17.7 (Rev. CoP19) for consideration by the Standing Committee.

Directed to the Animals and Plants Committees, in consultation with the Secretariat

20.BB Taking into account the comparative analysis of the objectives and processes outlined in Resolution Conf. 17.7 (Rev. CoP19) on Review of trade in specimens reported as produced in captivity and Resolution Conf 12.8 (Rev. CoP18) on Review of Significant Trade in specimens of Appendix-II species in document AC33 Doc. 15.3, relevant discussions during the previous intersessional period and the recommendations from the Animals Committee under Decision 20.AA, the Animals and Plants Committees shall, in consultation with the Secretariat, make recommendations to amend Resolution Conf. 12.8 (Rev CoP18); for consideration by the Standing Committee.

Directed to the Standing Committee, in consultation with the Secretariat

20.CC The Standing Committee shall:

- a) review the report and the recommendations of the Animals Committee under Decision 20.AA;
- b) review the report and the recommendations of the Animals and Plants Committees under Decision 20.BB; and
- c) in consultation with the Secretariat, make recommendations for consideration at the 21st meeting of the Conference of the Parties

Recommendations

- 20. The Animals Committee is invited to:
 - a) agree to propose to the 20th meeting of the Conference of the Parties to amend paragraph 2 d) of Resolution Conf. 17.7 (Rev. CoP19) on Review of trade in animal specimens reported as produced in captivity as follows:
 - d) Where the Animals Committee finds that a species/country combination raises concerns better dealt within the process of the Review of Significant Trade, it can introduce that combination into stage 2 of the process in accordance with Resolution Conf. 12.8 (Rev. CoP18), paragraph 1 d) as an exceptional case; and

- b) consider whether it wishes to continue with the process of reviewing Resolution Conf. 17.7 (Rev. CoP19) and Resolution Conf. 12.8 (Rev. CoP18) and, if so:
 - i) consider the draft decisions in paragraph 19;
 - ii) agree the submission of draft decision 20.AA for consideration by the Standing Committee at its 78th meeting; and
 - iii) agree the draft decisions 20.BB and 20.CC and request the Chair of the Animals Committee to consult the Plants Committee through its Chair on these draft decisions and submit the outcome for consideration by the Standing Committee at its 78th meeting; and
- c) agree that Decisions 19.63 and 19.64 have been implemented and can be proposed for deletion at CoP20.

COMPARISON OF RESOLUTION CONF. 17.7 (REV. COP19) ON THE REVIEW OF TRADE IN ANIMAL SPECIMENS REPORTED AS PRODUCED IN CAPTIVITY, AND RESOLUTION CONF. 12.8 (REV. COP18) ON THE REVIEW OF SIGNIFICANT TRADE IN SPECIMENS OF APPENDIX-II SPECIES.

1. Key similarities and differences

Objectives

The overarching aim of Resolution Conf. 12.8 (Rev. CoP18) on *Review of Significant Trade in specimens of Appendix-II species* (RST) is to ensure that international trade in Appendix-II species is sustainable and is not detrimental to the survival of species in the wild. The key focus of the process is compliance with Article IV of the Convention (namely the non-detriment finding process); as such it predominately considers biological aspects of species, trade sustainability and impact on wild populations. Although other non-Article IV issues may be identified as part of the review, these are secondary to its overall aims. The review was established at CoP8 (Kyoto, Japan) in 1992³, and has thus been in place for 32 years. The process has been revised twice (CoP12 and CoP17), and there have been 11 iterations to date.

The aim of Resolution Conf. 17.7 (Resolution CoP19) on **Review of trade in specimens reported as produced in captivity** is primarily around ensuring that the trade in captive-produced animals is not having a detrimental effect on species in the wild. It was established at CoP17 (Johannesburg, South Africa) in 2016, primarily to address an observed shift in trade from wild specimens towards captive production for many species since the Convention came into force. In particular, the process is a way to identify and bring to light any concerns relating to the feasibility of captive-breeding and the potential for laundering of wild specimens. In this process, there is a focus on both biological aspects and compliance issues. There have been two iterations to date.

No species were selected for either process following CoP18 due to the global pandemic.

Processes - overview

To compare similarities and differences, the two resolutions were mapped against each other on a timeline using key milestones (meetings of the CoP, AC/PC/SC). This was compiled based on the text within the resolutions and based on the figure in Annex 1 of Resolution Conf. 12.8 (Rev. CoP18). It is clear from the combined timeline (Figure 1) that both processes have four parallel stages that relate to: identification of species for review, consultation with range States/Parties included, formulation and transmission of recommendations, and review of the implementation of recommendations. It is also notable that the two resolutions link with one another, with each process having an ability to refer a case to the other where it is considered more appropriately discussed in the alternate process.

Noting that elements of the RST timeline, particularly relating to Stage 4 appeared over-simplified in the Annex to the resolution, Figure 1 includes a number of amendments that could be considered as a possible revision to Annex 1 of Resolution Conf. 12.8 (Rev. CoP18) to facilitate overall understanding of the process. As Resolution Conf. 17.7 (Rev. CoP19) does not currently include an overview of the procedure, which is likely to be helpful for Parties, a timeline could be included as an Annex, adapted from Fig. 1. Similarities and differences for each of the four stages are considered below.

Stage 1: Selection of species/country combinations for review.

For both processes, Stage 1 on the selection of taxa at the first AC/PC following a CoP is very much aligned (Figure 1). The methods for selection of the two processes have some similarities – most notably that both involve an extraction from the CITES Trade Database – but important differences exist. These are discussed further in section 2. Whilst the first action for the Secretariat to compile or make a request to compile trade data to inform the process has a deadline of 90 days after the CoP for RST in line with para 1 a), Resolution 17.7 does not have a similar deadline. This difference could be due to the different funding sources for the two resolutions, but the timing of 90 days could be more aligned.

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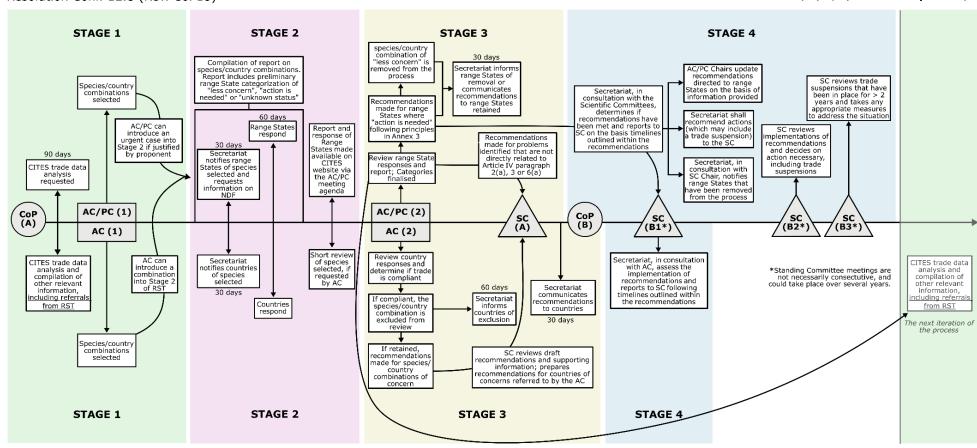
³ Process was originally in Resolution Conf. 8.9.

The scope of the two resolutions is summarised in Table 1, along with the relevant data sources included in the methods. Resolution Conf. 17. 7 (Rev. CoP19) relates to only animals but is broader in scope in terms of the Appendices, including all Appendix I and II taxa; Resolution Conf. 12.8 (Rev. CoP18) also includes plants and all Appendix-II taxa, but only Appendix I taxa that are subject to a reservation. Whilst the two processes generally focus on different source codes, there is clear overlap with source code R. Issues identified around source codes R and F are discussed below.

Figure 1. Timeline and key milestones for the Review of Significant Trade (top) and timeline and key milestones for the Review of captive-breeding (bottom).

Review of Significant Trade in specimens of Appendix-II species Resolution Conf. 12.8 (Rev. CoP18)

Source codes W, R, U, Y, no source specified, X



Review of trade in animal specimens reported as produced in captivity Resolution Conf. 17.7 (Rev. CoP18)

Source codes C, D, F, R

Table 1. Scope of the two processes and data sources used.

Category	RST [Resolution Conf. 12.8 (Rev. CoP18)]	Captive-breeding [Resolution Conf.17.7 (Rev. CoP19)]						
Appendix	II and I (subject to reservation)	I and II						
Taxonomic group	Plants and animals	Animals only						
Source	W, R, U, Y, no source specified and X (specimens taken in the marine environment not under the jurisdiction of any State)	C, D, F, R						
Purpose	All	All						
Years	Five most recent years with CITES trade data in the "summary output".	At least five most recent years with CITES trade data for criteria i-iii, and three years for iv-viii.						
Data Sources	CITES Trade Database IUCN Red List Species+ (distribution, trade suspensions)	CITES Trade Database IUCN Red List Species+ (distribution, trade suspensions) Life history databases and literature Expert opinion – taxonomic focus (e.g. DGHT for reptiles at AC32) ZIMS (Species 360 for data on specimens held/born in collections) ⁴						
CITES Trade database report type	Direct trade (re-exports excluded)	Direct trade (re-exports excluded). Criterion vi) on legal acquisition also considers indirect trade into the focal country						

Source code R (ranched specimens)

Ranched specimens are taken from the wild (at a high-mortality life stage), so the requirements of Article IV clearly apply and accordingly RST is relevant. However, ranched specimens are also maintained in captivity to be reared to a marketable size, and the captive-breeding resolution can better address any compliance-related concerns issues relating to, for example, questionable annual production levels based on reported offtake or whether the correct source code is being applied.

It is notable that the standard questions submitted to the concerned Parties included in Resolution Conf. 17.7 (Rev. CoP19) for source code R (see AC32 Com.4) include a request for information on the status of the wild population, and other aspects such as the frequency of monitoring of the wild population to allow for changes in population size and structure to be recorded, offtake levels, an estimate of the percentage of the annual wild production (eggs, neonates, etc.) that are taken for ranching, an estimate of the percentage of the distribution area of the species where ranching is operating, and details of conservation programmes carried out in relation to the ranching operation or wild population concerned. These rather comprehensive questions all relate to the impact of offtake on the wild populations, or other words, a non-detriment finding in accordance with Article IV.

A Party's response to the above source code R questions under Resolution Conf.17.7 (Rev. CoP19) may flag concerns relating to the impact of continued ranching on the wild population. It could therefore be more relevant to include a case in Stage 2 of the RST process (i.e., compile an in-depth review of the species in the country with a provisional categorisation⁵ for AC consideration). The responses to these standard questions under the captive-breeding resolution would, however, not be considered until AC2 in the timeline (Figure 1), at the same meeting as the report under para 1 e) of RST is considered. This timing issue could be addressed if, based on the response of the Party concerned, the AC members (through the Chair) made a provisional decision on whether a case concerning source code R in Resolution Conf. 17.7 (Rev. CoP19) would be more relevant to address in RST, including it as an urgent case in line with para 1 c) of Resolution Conf. 12.8 (Rev. CoP18).

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Dependent on data access and availability

⁵ In accordance with para 1 d) of Resolution Conf. 12.8 (Rev. CoP18) as "action is needed", "unknown status" or "less concern".

The retention of source code R in both processes does continue seem to valid, as both processes are considering different aspects and can refer a case, as appropriate.

Source code F (specimens born in captivity)

The trade analysis for the selection of species under Resolution Conf. 17.7 (Rev. CoP19) includes consideration of source code F⁶, while source code F is not in the scope of Resolution Conf. 12.8 (Rev. CoP18). Recommendations made by the Standing Committee under the Review of Significant Trade only concern trade covered by Article IV of the Convention (i.e., the export, re-export or introduction from the sea of specimens of species included in Appendix II), and not Article VII (the latter including specimens of animal species bred in captivity). There is therefore a question as to whether source code F should be included in the scope of RST. An NDF for source code F is required for the acquisition of the founder stock, together with any further augmentation of wild specimens to the breeding stock over time.

The main problem with including source code F in the selection outputs for Resolution Conf. 12.8 (Rev. CoP18) is that the selection process would no longer solely be considering the trade impacting the species in the wild. It could skew the selection towards some species that are produced in captivity. In some cases, source code F is used rather than source code C because the specimens are not maintained in a controlled environment and do not therefore meet the definition in Resolution Conf. 10.16 (Rev. CoP19) on *Specimens of animal species bred in captivity*, despite there being no impact of trade on wild populations.

For the RST extended analysis, all "wild" source codes⁷ are combined in the methods to provide overall trade levels presented across years, and the percentage of trade in those source codes is indicated. One possible addition could be to include separately whether there is any reported trade in source code F specimens in the contextual information. However, it is difficult to assess the impact of total trade levels in source code F specimens from a country without knowing the number of breeding facilities, or whether those facilities have acquired their founder stock from the wild, and if so, whether they are continuing to augment the breeding stock with additional wild caught specimens.

For those cases selected in the captive-breeding review process for source code F, the standard questions (F1-4) outlined in the Annex of AC32 Com. 4 are sent to the Parties concerned by the Secretariat. However, the key question on how the acquisition of the founder stock is non-detrimental to the wild population (question F2) appears less rigorous than for the questions for source code R (as outlined above). Parties concerned are simply asked if an NDF has been made and "the way [in which] in such findings have been made, particularly for species not native to your country". Further details could be requested on the specific details of the acquisition of the founder stock, particularly where the species is native to the country (e.g. how many individuals and when, the male/female ratio, was offtake from one or multiple areas, the population status in the country, whether harvest was under permit from the relevant authorities etc.), along with the determination that that level of offtake was non-detrimental.

If sufficient information is provided by the Parties concerned and the Animals Committee can make a relatively quick assessment that the acquisition of the founder stock from the wild was non-detrimental, the case could exit from the process if all other breeding details requested are coherent. It gets more complicated where a facility is regularly augmenting the founder stock with wild specimens, and therefore some kind of monitoring of impact would be needed. One option would be to request more explicitly details of monitoring in question F4. If an independent assessment that better aligns with Resolution Conf. 12.8 (Rev. CoP18) is needed, similar to source code R above, referral to the RST could be done by the AC members through the Chair. Taking this approach, consideration of source code F would be retained in the captive-breeding resolution, and only exceptionally included in the RST as determined necessary by the Animals Committee.

Exceptional cases and referral between the processes

Stage 1 of both resolutions includes provisions for inclusion of an exceptional case outside of the AC/PC selection process. An urgent case needs to be accompanied with a justification including supporting documents and trade data analysis. For RST, it is assessed and decided on by the relevant scientific committee, but for the captive-breeding resolution the case is assessed by either the Animals Committee or the Standing Committee, as appropriate (Figure 1).

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⁶ Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev. CoP19) as well as parts and derivatives thereof.

W, R, U, X, Y, and no source specified

Where concerns are raised by the Animals Committee about a case under consideration under Resolution Conf.17.7 (Rev. CoP19) as outlined above, paragraph 2 d) specifies that the case can be referred to the RST as an exceptional case [i.e., paragraph 1 c) of Resolution Conf. 12.8 (Rev. CoP18) (the text says para. 1 d) erroneously]. Resolution Conf. 12.8 (Rev. CoP18) does not, however, refer specifically to Resolution Conf. 17.7 (Rev. CoP19). A reference could be made in para 1 c) of RST that an urgent case could include referral from the captive-breeding resolution. Similarly in Stage 3 of RST, it could be made clearer that cases could be referred to Resolution Conf. 17.7 (Rev. CoP19) where concerns relate to captive production systems. At AC29, the Animals Committee referred a number of cases to the captive-breeding resolution, including six countries exporting Centrochelys sulcata, Uromastyx aegyptia from the Syrian Arab Republic, and Ornithoptera croesus and O. rothschildi from Indonesia (see AC29 Com. 5 Rev. by Sec.). Whilst the six Centrochelys sulcata cases were included as was O. croesus from Indonesia [meeting two criteria of Resolution Conf. 17.7 (Rev. CoP19)], the other two cases were not taken forward.

Stage 2: Consultation with countries and compilation of information

In Stage 2, the Secretariat notifies range States that they are included in the relevant process and requests corresponding information, as summarised below.

Table 2. Range State consultation:

Ü	RST	Captive-breeding						
Information requested	Range States are requested to provide details about the process of forming NDFs by the Scientific Authority (SA), how the SA monitors exports, details of the conservation status of the relevant species including population estimates and trends, threats, trade levels, species management and relevant laws.	Initial consultation primarily relates to the determination of source codes, with information requested on specific breeding facilities, as well as details of non-detriment findings for source codes R and F (see standard questions in Annex of AC32 Com. 4.						
Timeframe to respond	60 days	Deadlines for responses are agreed with the AC Chair, but range States are given "at least 60 days" to reply to an initial consultation.						

The initial consultation with Parties concerned on Resolution Conf. 17.7 (Rev. CoP19) largely relates to a request for information on the relevant production system to determine the correct application of source codes (see Annex of AC32 Com. 4). The Secretariat drafts the questions and structures them around issues related to each source code (C, D, F and R). Generally, these questions seem to work well in practise at getting the required information (although see discussion on source code F above).

While it makes sense for the information requested from Parties concerned to differ across the two processes, the discrepancy in the timeframes for responses could be more closely aligned to make them more streamlined (noting that cases may be referred between processes). The compilation of information in Stage 2 to inform Stage 3 decision-making is summarised in the following table.

Table 3. Compilation of information

Table 6. Compilation	RST	Captive-breeding resolution					
Decision on species/country combinations to review	All species/country combinations selected by the AC/PC are reviewed in Stage 2 [para 1 d] ii)].	The Animals Committee must decide whether to request the Secretariat to commission a short review of information for a selected number of species [Stage 1 para. 2 c)]. These reviews are completed in Stage 2 [para. 2 h)]					
Compilation of information	The Secretariat compiles, or appoints consultants to compile, a report on biology and management of, and trade in the species, including range State responses . See example in document AC30 Doc. 12.2 Annex 2 (Rev.1)	The Secretariat commissions if requested, short reviews relating to the breeding biology and captive husbandry for the species concerned, as well as any impacts of removal of the founder stock if relevant. See example in document AC30 Doc. 13.1 Annex 3					
Review provides	Conclusions about the effects of international trade on the selected species and categorization of the cases into: • "Action is needed", • "Unknown status" or • "Less concern" in accordance with para. 1 e).	Compilation of information. The example above also provided information on ease of breeding in captivity (whether bred to F1/F2 etc), the extent of breeding in captivity (quantity of specimens bred and number of breeders in different parts of the world) and relevant marking systems.					

AC32 did not specifically request the short reviews referred to in para 2 h), although it was considered by the Secretariat that this would be useful to assist AC33 with Stage 3 of the process, as external funds had been made available. How aspects relating to the breeding biology of species should be incorporated into the captive-breeding process going forward are considered further in "Review of methods for captive-breeding resolution [Resolution Conf. 17.7 (Rev. CoP19)]"

Stage 3: Review of the information provided [& categorisation by the AC/PC for RST] and formulation of recommendations

Recommendations formulated in Stage 3 of both resolutions should meet a number of guiding principles, namely that they are time-bound, feasible, measurable, proportionate and transparent. Whilst the final principle for RST also states that recommendations should be aimed at building capacity of the range State (specifically around implementation of Article IV), the captive-breeding resolution's equivalent final principle states that the recommendation should be "aimed at enduring long-term compliance which, where appropriate, aim to promote capacity-building and enhance the ability of the country to implement relevant provisions of the Convention".

For RST, examples of possible short and long-term recommendations addressing specific problems were developed under the *Evaluation of the Review of Significant Trade*, and can be found in Annex 5 of document CoP17 Doc.33. These examples address specific problems relating to Article IV, including issues such as lack of knowledge on populations status, lack of management measures, as well as capacity-building. They were intended to assist the in-session working group of the RST process to quickly develop recommendations under intense time pressure and were first used in the process at AC30 and PC24. Range States have however, raised concerns that too many recommendations were selected from this example list, making them too onerous to complete. Proportionality is already a guiding principle within the resolution, and getting the balance right is something that in-session working groups need to bear in mind. As such, the experience from the RST suggests that it is premature to conclude that drafting a detailed set of recommendations would also benefit the Review of captive-breeding at this time.

On timelines, for the RST process, recommendations are formulated at AC/PC, and range States are given specific time frames to respond. Short-term recommendation deadlines may be only 30 days (e.g., for establishment of a zero quota); longer term actions (such as undertaking science-based studies, development of management plans etc.) are usually requested within 1 to 2 years. Accordingly, given that responses are discussed at the next AC/PC (for which there are two meetings in the inter-CoP period), the RST process is often not quick.

For the captive-breeding resolution, any recommendations formulated by the AC are then endorsed and revised as needed by the next meeting of the Standing Committee (see timeline) and communicated to the country concerned by the Secretariat within 30 days of the SC meeting. The transmission of the combined recommendations to the Party is therefore likely to be delayed by a number of months and could be more than six months depending on the timing of meetings. For some criteria that relate to scientific issues, the request for information may not need SC input.

Stage 4: Measures to be taken regarding the implementation of recommendations

Determination of whether recommendations are met

For RST, the Secretariat, in consultation with the AC/PC through the Chairs determines whether recommendations are met. Consultation with the scientific committees is important, as many recommendations relate to the formulation of non-detriment findings.

The text in Stage 4 paragraph 1 k) i) of Resolution Conf. 12.8 (Rev. CoP18) suggests that once the recommendations have been considered met by the Secretariat and the Members of the AC and PC, through consultation with the Chairs, the Secretariat shall consult with the <u>SC Chair</u> and inform the range State that the case has been removed from the review. However in practise, the Secretariat does refer a recommendation to remove a case from the RST to a <u>meeting</u> of the Standing Committee (e.g. *Nardostachys grandiflora* and *Bulnesia samientoi* in document <u>SC75 Doc. 8</u>). Informing the wider SC meeting does appear to be a more precautionary measure, and gives all Parties an opportunity to provide input, especially around any scientific aspects related to NDFs. A change to paragraph 1 k) i) to align with practice on consultation with the wider SC rather than just the Chair for all cases could be considered.

Similarly, for the captive-breeding resolution, implementation of the specific recommendations formulated are assessed by the Secretariat, consulting with the AC and SC Members through the respective Chairs. Those cases where recommendations are considered to be met can be removed from the without further consideration by the Standing Committee in accordance with paragraph 2 o) i). As above, it may be more precautionary for the wider Standing Committee to endorse removal from the process.

2. Comparison of criteria and methods

There are parallels with the criteria developed for the two resolutions. Both processes select cases where trade is considered to be "high volume" or where there has been a "sharp increase" in trade (Table 4). The methods for the RST were scrutinised and amended under the joint AC/PC *Evaluation of the Review of Significant Trade*, which concluded at CoP17. Specific guidance on the methodology for the selection of species is outlined in Annex 2 of Resolution Conf. 12.8 (Rev. CoP18). The key amendments were to introduce a "sharp increase" criterion for species at the country level (noting these increases had previously been masked at the global level where there was a high level of trade from multiple countries, and increasing the sensitivity of the trade threshold levels for taxonomic groups by setting them at order rather than class level).

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Table 4. Comparison of criteria for the identification of species-country combinations for review for the Review of Significant Trade and the Review of Captive-breeding

Resolution Conf. 12.8 (Rev. CoP18)	Resolution Conf. 17.7 (Rev. CoP19)
ii) Sharp Increase (Global): Taxa showing a sharp increase in global	i) Significant Increase: significant increases in trade in specimens
trade in a focal year, in comparison to the average over the preceding five-	declared as captive-produced (source codes C, D, F and R)
year period	
iii) Sharp Increase (Country): Taxa showing a sharp increase in trade in	
a focal year at the country level (for countries of export) in comparison to	
the average over the preceding five-year period	
iv) High Volume: Taxa traded at levels considered to be high compared to	ii) Significant Numbers: trade in significant numbers of specimens declared
other taxa in their order over the most recent five year period	as produced in captivity
v) High Volume (Globally Threatened): Globally threatened, Near-	
Threatened (NT) and Data Deficient (DD) taxa traded at relatively high	
volumes for their Order over the most recent five year period	
i) Endangered Species: Species categorized as Critically Endangered (CR)	
or Endangered (EN) according to The IUCN Red List of Threatened Species	
(any species-country combinations with trade meet the criteria)	Sill Objite in account and as abite from wild to continuous desired
	iii) Shifts in source codes: shifts from wild to captive produced source codes
	iv) Reporting inconsistencies: inconsistencies between source codes
	reported by exporting and importing Parties for specimens declared as
	produced in captivity
	v) Incorrect application of source codes: apparent incorrect application of
	captive production codes such as 'D' for Appendix-I species that have not
	been registered in compliance with the provisions of Resolution Conf. 12.10
	(Rev. CoP15) on Registration of operations that breed Appendix-I animal
	species in captivity for commercial purposes
	vi) Legal acquisition: trade from non-range States of specimens declared
	as produced in captivity with no evidence of lawful acquisition of parental
	breeding stock (i.e. no recorded imports)
	vii) Breeding biology: specimens produced as captive produced (source
	codes C, D and F), where the species are known to be difficult to breed in
	captivity

Review of methods used for selection of taxa in captive-breeding resolution [Resolution Conf. 17.7 (Rev. CoP19)]

Given that Resolution Conf. 17.7 (Rev. CoP19) has been implemented only for two iterations, additional focus and review of the criteria is provided. Paragraph a) of the original resolution included six criteria for the identification of cases in the first iteration, but a seventh criterion, relating to the breeding biology of species was added at CoP19. A summary of the types of cases selected by the Animals Committee over the first two iterations is included in Annex 2, Table 1 (definitions for each of the criteria are provided in Table 4 above).

Taxonomic coverage and Red List status

Of the 44 combined cases selected for review at AC29 and AC32, almost half (21) were reptiles; seven amphibians, six mammals, four each of birds and invertebrates, and two fish were also selected. Whilst around half of all cases related to species that are globally threatened according to IUCN (3 CR, 6 EN and 12 VU) as well as *Nectophrynoides asperginis*, which is categorised as Extinct in the Wild, 22 species selected were not globally threatened (5 NT, 15 LC, 1 DD and 1 not assessed). Whilst the global conservation status of the species in the wild according to the IUCN Red List may be an influencing factor in the process, it is not an overriding one. For the captive-breeding resolution, selection appears to be more about concerns relating to captive-breeding feasibility for individual species, aligning with the resolution aim. *Centrochelys sulcata* was selected from six range States and *Macaca fascicularis* was selected from five; these two species alone represent 25% of all cases included in the process to date. Of the total 44 cases included, 30 different species have been selected.

Key criteria for selection

AC29 and AC32 prioritised a total of 20 cases (57%) where captive-produced trade was in high volumes (criterion ii) and eight cases (23%) where trade in captive-produced specimens appeared to be emerging (criterion i – sharp increase). *Hirudo medicinalis* (Azerbaijan) was the only case that met both the high volume and sharp increase criteria. Seven cases (20%) were also selected on the basis of shifts in source codes (criterion iii, e.g., from wild to captive-produced); two of which also met criterion ii).

Together with new criterion vii) on breeding biology (for which three cases were selected at AC32), these criteria all directly link to the biological feasibility of captive-breeding, for example whether it is possible to breed a species (or breed it to second generation), or whether it is feasible to produce the species in captivity at the scale or speed indicated by the trade data.

One case was selected solely on the basis of a concern relating to legal acquisition of founder stock (criterion vi): *Lorius lory* from South Africa. For five other cases where there was concern relating to legal acquisition, other criteria were also met.

No cases were selected by the AC under criterion v) (incorrect application of source codes) over the two iterations. Whilst criterion iv) (reporting inconsistencies) was relevant for *Macaca fascicularis* (Indonesia), this case was also selected under criterion ii). It is notable that criterion iv) and v) do not directly link to concerns about captive-breeding feasibility and appear to be of lower priority to the Animals Committee under this process. This aligns with paragraph 2 c) that directs the Animals Committee to select a "*limited number of species-country combinations for review, taking into account the biology of the species*". Accordingly, at AC32, outputs on criteria iv), v) and vii) were directed to the SC with minimal discussion.

Inclusion of breeding biology in the criteria

As noted above, the Animals Committee is requested to select cases taking into account the breeding biology of the species. Resolution Conf. 17.7 (Rev. CoP19) does not outline the precise metrics to be used to inform criterion vii), and thus the methodology for its application in the iteration of the species selection process was developed by UNEP-WCMC in consultation with the Secretariat and the Chair of the Animals Committee.

An attempt was made to include breeding biology into criterion vii) "difficult to breed taxa" for the second iteration (see Annex of document <u>AC32 Doc. 15.1</u>). While subjectivity may be an issue, expert knowledge in the keeping and breeding of species is more likely to be responsive to new information than published

literature. Expert knowledge was therefore the focus of data collection for criterion vii) at AC32. Expert knowledge is, however, time and resource intensive to gather, and given that there were only a limited number of weeks available to gather data to inform criterion vii) at AC32, UNEP-WCMC concentrated on gaining data for two classes highly represented in captivity: reptiles and amphibians. In addition, based on the growing number of online datasets and other sources of information on species' biological traits, four life history parameters relating to breeding biology (adult body size, female age at maturity, number of offspring produced at each reproductive event and, where available, number of offspring per year) were shown as meta data in the outputs produced for AC32.

If the breeding biology of species can inform the selection process in Stage 1, then the "short review" of species included in the process [stage 2 paragraph 2 h)] may not be necessary as this could be considered as duplication. However, given that, at the present time, reasonably comprehensive data on "difficulty to breed" taxa is only available for reptiles and amphibians, it seems premature to consider any changes to the resolution at this time.

Re-selection of cases

Three cases were re-selected at AC32 that had already gone through the process in the first iteration and had been closed: *Agalychnis callidryas* (Nicaragua), *Oophaga pumilio* (Nicaragua) and *Macaca fascicularis* (Cambodia). It is not clear if there were new AC concerns (i.e., relating to new breeding facilities) or increased production levels, noting that *Oophaga pumilio* was first included under criterion i) and for the second iteration was included under criterion ii). A database of the species that have been included in the process similar to the <u>RST Management System</u> would also be useful to track progress and ensure there is no re-selection unless there are clear concerns. In the meantime, the cases included in the first two iterations and their current status can be downloaded from the "download species lists" section of Species+.

SPECIES SELECTED FOR THE REVIEW OF ANIMAL SPECIMENS REPORTED AS PRODUCED IN CAPTIVITY AT AC29 AND AC32

Table 1. Basis of selection for 44 cases selected under the first two iterations of Resolution Conf. 17.7 (Rev. CoP19), and the number selected within each criterion of Stage 1 paragraph a). Each criterion is defined in Table 4 in Annex 1.

Iteration	Species/countries Basis of Criteria met										
	included (IUCN Red List at the time of selection)	selection	i)	ii)	iii)	iv	v)	vi)	vii)*	Review status following AC32	Source codes
First iteration	Vulpes zerda / Sudan (LC)	AC29 Doc. 14.1 Annex			Х					Closed	С
	Cacatua alba / Indonesia (EN)		Х							Closed	С
	Varanus exanthematicus / Ghana (LC)				Х					Ongoing	R
	Varanus exanthematicus /Togo (LC)			Х						Closed	R
	Varanus timorensis / Indonesia (LC)			Х						Closed	С
	Ptyas mucosus / Indonesia) (N/A)				Х					Closed	С
	Testudo hermanni / FYROM (NT)			Х						Closed	С
	Oophaga pumilio / Nicaragua (LC)		х							Closed	С
	Oophaga pumilio / Panama (LC)			Х						Closed	С
	Agalychnis callidryas / Nicaragua (LC)			Х						Closed	С
	Hippocampus comes / Viet Nam (VU)				Х					Closed	F
	Tridacna crocea / Federated States of Micronesia (LC)		Х					Х		Closed	F
	Lorius lory / South Africa (LC)							Х		Closed	C, F
	Ornithoptera croesus / Indonesia (NT)	Referral from RST		X	Х					Closed	R
	Sub-total first iteration	[14 cases]	3	6	5	0	0	2			
Second iteration	Agalychnis callidryas / Nicaragua (LC)	AC31 Doc. 15.1 Annex		Х						Selected	С
	Batagur borneoensis / United States of America (CR)								Х	Selected	С
	Cheilinus undulatus / Indonesia (EN)			Х						Selected	R
	Chlamydotis macqueenii / Kazakhstan (VU)		х							Selected	С

Included (IUCN Rod List at the time of selection I) III III III IV V VII VII Selection Selection Chlemydois undulata / Morocco (IVU) Cienosaura quinquecarinata / Nicaragua (ICC) Dendrobates auratus / Nicaragua (ICC) Dendrobates auratus / Nicaragua (ICC) Dendrobates auratus / Nicaragua (ICC) Gekko gecko / Indonesia (ICC) Hirudo medicinalis / Azerbaijan (NT) X X Selected C C Hirudo medicinalis / Azerbaijan (NT) X X Selected C C C C C C C C C	Iteration	Species/countries	Basis of	Criteria met								
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							Ongoina	C, F, R.				

Iteration	Species/countries	Basis of	Cr	iteria	met						
	included (IUCN Red List at the time of selection)	selection	i)	ii)	iii)	iv	v)	vi)	vii)*	Review status following AC32	Source codes
	Geochelone elegans / Jordan (VU)	Cases compiled by Sec. based								Closed	С
	Macaca fascicularis /Cambodia (LC)	on concerns about captive production								Closed	C, F
	Trachyphyllia geoffroyi /Indonesia (NT)	AC29 Party/ Observer suggestions								Closed	C, F
		44 cases selected AC29 and AC32									

^{*}Criterion vii) was included at CoP19 and therefore was only applicable to the second iteration