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

Thirty-first meeting of the Animals Committee
Geneva (Switzerland), 13-17 July 2020

Interpretation and implementation matters

Regulation of trade

Captive-bred and ranched specimens

REVIEW OF TRADE IN ANIMAL SPECIMENS REPORTED AS PRODUCED IN CAPTIVITY

1. This document has been submitted by the Secretariat.

Background

2. Resolution Conf. 17.7 (Rev. CoP18) on *Review of trade in animal specimens reported as produced in captivity* concerns trade in specimens traded under source codes C, D, F or R, as defined in paragraph 3 j) of Resolution Conf. 12.3 (Rev. CoP18) on *Permits and certificates*. The Animals Committee, together with the Standing Committee and in cooperation with the Secretariat, is directed to play a key role in the implementation of Resolution Conf. 17.7 (Rev. CoP18).

3. At its 18th meeting (CoP18, Geneva, August 2019), the Conference of the Parties adopted Decisions 18.176 and 18.177 on *Review of the provisions of Resolution Conf. 17.7 (Rev. CoP18)* as follows:

18.176 Directed to the Animals Committee

With the assistance of the Secretariat and in the light of its experiences with its implementation, the Animals Committee shall review the provisions of Resolution Conf. 17.7 (Rev. CoP18) on Review of trade in animal specimens reported as produced in captivity *and make any recommendations for improvements to the Standing Committee.*

18.177 Directed to the Standing Committee

With the assistance of the Secretariat, taking account of any report from the Animals Committee and in the light of its experiences with its implementation, the Standing Committee shall review the provisions of Resolution Conf. 17.7 (Rev. CoP18) and make any recommendations for improvements to the 19th meeting of the Conference of the Parties.

Review of ongoing cases

4. At its 29th meeting (AC29, Geneva, July 2017), in accordance with paragraph 2 c) of Resolution Conf. 17.7, the Animals Committee selected a number of species-country combinations for review under this Resolution, taking into account the biology of the species. The review of the cases selected after CoP17, initiated in accordance with Resolution Conf. 17.7, will now proceed under the provisions of Resolution Conf. 17.7 (Rev. CoP18). In making the selection, the Committee was mindful of paragraph 2 f) of Resolution Conf. 17.7 (Rev. CoP18), which refers to the need to "determine if the correct source codes have been used, under the applicable Resolutions, for specimens claimed to be produced in captivity", and of paragraph 2 h), which refers to the need to "determine if trade is in compliance with Article III and Article IV of the Convention, as well as Article VII, paragraphs 4 and 5".

5. In accordance with paragraph 2 c) of the Resolution, for each species-country combination selected for review, the Animals Committee drafted general or specific questions to be addressed by the Secretariat to the Parties concerned.

6. In accordance with paragraph 2 f) of the Resolution, the Secretariat, in August 2017, notified the countries concerned that certain species produced in captivity in their country had been selected for review, providing them with an overview of the review process and an explanation for the selection provided by the Animals Committee. Copies of the responses received can be found in Annex 2 of document AC30 Doc. 13.1 (Rev. 3) and its addendum. The Secretariat removed all personal details concerning the facilities/operations referred to in the replies and the names of inspectors who may have been cited as visiting them.

7. At its 30th meeting (AC30, Geneva, July 2018), the Animals Committee reviewed the report of the Secretariat (document AC30 Doc. 13.1), the responses to the questions received from countries [AC30 Doc. 13.1 A2 (Rev. 3) and AC30 Doc. 13.1 A (Rev. 3) add.], and the reviews of known information relating to breeding biology and captive husbandry and any impacts, if relevant, of removal of founder stock from the wild for species selected by AC29 (AC30 Doc. 13.1 Annex 3). It determined whether or not the trade in question is in compliance with Article III and Article IV of the Convention, as well as Article VII, paragraphs 4 and 5.

8. In some cases, the Animals Committee determined that the trade in specimens with source codes C, D, F or R was in compliance with Article III and Article IV of the Convention, as well as Article VII, paragraphs 4 and 5. In accordance with paragraph 2 g) of the Resolution, the following species-country combinations were therefore excluded from the review, and the countries concerned notified accordingly by the Secretariat in September 2018: *Macaca fascicularis* from Cambodia, *Tridacna crocea* from the Federated States of Micronesia, *Ptyas mucosus* from Indonesia, *Trachyphyllia geoffroyi* from Indonesia, *Agalychnis callidryas* from Nicaragua, *Lorius lory* from South Africa and *Varanus exanthematicus* from Togo. The fifteen species/country combinations retained involve 10 Parties. For these, the Animals Committee formulated draft recommendations, in consultation with the Secretariat, and presented them for review and endorsement by the Standing Committee in document SC70 Doc.31.3, in accordance with paragraph 2 i) of the Resolution.

9. At its 70th meeting (SC70, Sochi, October 2018), the Standing Committee endorsed the Animals Committee's detailed recommendations in relation to 12 species/country combinations, and revised recommendations to a further three species/county combinations. In accordance with paragraph 2 k) of the Resolution, the Secretariat conveyed these recommendations to the countries concerned in November 2018, inviting them to provide their responses by 1 February 2019.

10. At the 71st meeting of the Standing Committee (SC71, Geneva, August 2019), the Secretariat provided its own provisional evaluations of the implementation of the recommendations for the fifteen species/country combinations concerned. The rationale for these evaluations was presented in the Annex to document SC71 Doc. 13. The Standing Committee agreed to defer decisions on appropriate actions and recommendations to the ten countries concerned to provide the Animals Committee with the opportunity to evaluate the responses received. For the four countries that had not yet responded, the Standing Committee agreed to extend the deadline for responding to 31 December 2019. In the absence of response, the Standing Committee requested the Secretariat to publish an interim zero export quota for the specimens of the species under review. In this regard, zero quotas have been published on the CITES website for the following species/country combinations: captive bred and ranched specimens of *Centrochelys sulcata* and *Varanus exanthematicus* from Ghana; captive bred and ranched specimens of *Hippocampus comes* from Viet Nam.

11. The Secretariat continued to seek responses from the four countries which did not reply. Since SC71, additional responses have been received from Benin (concerning *Centrochelys sulcata*) and Panama (concerning *Oophaga pumilio*).

12. In accordance with paragraph 2 n) of the Resolution and the conclusions by the Standing Committee at its 71st meeting, the Secretariat will consult with the members of the Animals Committee and the Standing Committee, through their Chairs, to determine whether the recommendations to the ten countries referred to above have been implemented. These consultations will take place intersessionally. In accordance with paragraph n) i) of the Resolution, where the recommendations have been met, the Secretariat shall, following consultation with the Chair of the Standing Committee, notify the Parties that the species-country combination was removed from the review process. In accordance with paragraph 2 n) ii), in cases where the recommendations are not deemed to have been met, the Secretariat will, following consultation with the members of the Standing and Animals Committees through their Chairs, recommend to the Standing Committee appropriate action, which may include, as a last resort, a recommendation to suspend trade in the affected species with that State. In accordance with paragraph 2 o), the Secretariat will report on its evaluation of the implementation of the recommendations, including the rationale for its evaluation, and a

summary of the views expressed by the Animals Committee, to the Standing Committee, for consideration at its 73rd meeting,

Identification of new species-country combinations for review

13. Paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP18) states that:

> *The Secretariat shall produce a summary from the CITES Trade Database of annual report statistics of species traded, derived from the five most recent years, under source codes C, D, F or R and will undertake, or appoint consultants to undertake, an analysis of such data to identify species-country combinations for review using the following criteria:*
>
> *i) significant increases in trade in specimens declared as captive-produced (source codes C, D, F and R);*
>
> *ii) trade in significant numbers of specimens declared as produced in captivity;*
>
> *iii) shifts and fluctuations between different captive-production source codes;*
>
> *iv) inconsistencies between source codes reported by exporting and importing Parties for specimens declared as produced in captivity;*
>
> *v) apparent incorrect application of captive production codes such as: 'A' for animal species or '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*; and*
>
> *vi) 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)*

14. Thanks to funding from the United States of America, the Secretariat commissioned the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC), to produce such a summary and analysis. The analysis can be found within the Annex to the present document, while the full summary of trade data upon which it is based is presented in an information document.

Other relevant information with respect to concerns about captive production

15. Paragraph 2 b) of Resolution Conf. 17.7 (Rev. CoP18) states that "the Secretariat shall also compile any other relevant information made available to it with respect to concerns about captive production, including any cases identified under Resolution Conf. 12.8 (Rev. CoP18) on *Review of Significant Trade in specimens of Appendix-II species,* referred to it by Parties or available in relevant reports, including the global conservation status by species published in the IUCN *Red List of Threatened Species* or noted as not evaluated".

16. In the context of paragraph 2 b) of Resolution Conf. 17.7 (Rev. Cop18), no additional species-country combinations of possible concern have come to the attention of the Secretariat since AC29 when the first list of species/country combinations was selected, either through Resolution Conf. 12.8 (Rev. CoP18) or referred by Parties.

17. The Secretariat has not had the resources to undertake a literature review of possible cases in published reports or the IUCN *Red List of Threatened Species*. However, the global conservation status of species published in the IUCN *Red List of Threatened Species* has been taken into account in the trade analysis conducted by UNEP-WCMC (see paragraphs 14 and 15 above).

Selection process at the present meeting

18. In accordance with paragraph 2 c) of Resolution Conf. 17.7 (Rev. CoP18), the Animals Committee may select a limited number of species-country combinations for review, taking into account the biology of the species. Paragraph 2 c) is silent on the criteria to be used in the selection process. However, as stated in paragraph 4 above, paragraph 2 f) of the Resolution refers to the need to "determine if the correct source codes have been used, under the applicable Resolutions, for specimens claimed to be produced in captivity". Paragraph 2 h) directs the Animals Committee to "determine if trade is in compliance with Article III and

Article IV of the Convention, as well as Article VII, paragraphs 4 and 5". Paragraph 2 c) of the Resolution requires the Animals Committee to provide a brief explanation of the selection. In order to provide clarity, the Secretariat suggests that in this explanation the Committee specifies the Article of the Convention text and paragraph of any associated Resolution with which there is a lack of compliance.

19. For each species-country combination for review, paragraph 2 c) of the Resolution requires the Animals Committee to draft general or specific questions to be addressed by the Secretariat to the countries concerned. In drafting these questions, the Committee may wish to consider the outputs from AC30 Com 11 (Rev. by Sec). It may also be useful to ask more generally for a description of the production systems in use by particular countries, and how countries ensure there is no detriment to the species in the wild resulting from trade in captive-bred specimens.

20. To facilitate the selection process, the Secretariat will work closely with UNEP-WCMC, Species360 and the Animals Committee, through its Chair, to propose a shortlist of a limited number of potential candidate species/country combinations with a brief explanation of the criteria used to justify their selection, in advance of the present meeting, based on the outputs contained in the Annex to the present document. Draft questions to be transmitted to the countries concerned will also be prepared in advance of the meeting. The proposed shortlist and draft questions will be published in advance of the meeting as an addendum to the present document. Countries included in the shortlist will be notified in advance to give them an opportunity to respond. Comments and inputs from Parties and observers will, to the extent possible, be collected and made available in advance in an information document.

21. Paragraph 2 g) of the Resolution directs the Animals Committee to determine for which species it should request the Secretariat to commission short reviews of known information relating to the breeding biology and captive husbandry and any impacts, if relevant, of removal of founder stock from the wild. The Committee is asked to note that the number of such reviews that can be commissioned will depend on the external funding available and, for that reason, the Secretariat requests the Committee to list such requests in order of priority.

22. Any urgent enforcement matters identified in the course of the review at the present meeting should be referred to the Secretariat and the country concerned, in accordance with paragraph 2 e) of the Resolution, and subsequently reported to the Standing Committee.

Next steps following the present meeting

23. Following the activities to be undertaken at the present meeting and described in paragraphs 18 to 22, paragraph 2 f) of the Resolution directs the Secretariat , within 30 days, to notify the country or countries concerned that species produced in captivity in their country have been selected for review, provide them with an overview of the review process and an explanation for the selection provided by the Committee and convey to them the Committee's questions.

Implementation of Decision 18.176

24. Regarding the implementation of Decision 18.176 and the review of Resolution Conf. 17.7 (Rev. CoP18), the Animals Committee and the Secretariat presented their preliminary observations and recommendations to the Standing Committee in document SC70 Doc. 31.4. The Standing Committee concurred with their view that as a complete review cycle under Resolution Conf. 17.7 had yet to be completed, it would be premature to make significant changes to provisions of the Resolution, or too soon to assess whether harmonisation with the process in Resolution Conf. 12.8 (Rev. CoP18) on *Review of Significant Trade in specimens of Appendix-II species* would be advisable.

25. In support of the implementation of Decision 18.176, the Secretariat suggests that the Animals Committee consider establishing an intersessional working group to work with the Secretariat to update the review of the provisions of Resolution Conf. 17.7 (Rev. CoP18) presented in SC70 Doc. 31.4, and develop draft recommendations for improvements that can be considered at the 32nd meeting of the Animals Committee before submission to the 74th meeting of the Standing Committee. In this regard, the Secretariat welcomes further observations from Animals Committee members, Parties or observers which could contribute to such a revision.

Recommendations

25. The Animals Committee is invited to:

a) note the update on the review of ongoing cases provided in paragraphs 4 to 12;

b) taking into account the results of the consultations outlined in paragraph 22 above and presented in the addendum to this document,

i) select a limited number of species-country combinations for review,

ii) prepare a brief explanation of the criteria used to justify each selection; and

iii) draft general or specific questions for the countries selected for review;

c) determine and prioritize for which species a request should be made for the commissioning of a short review of the breeding biology, captive husbandry and any impacts, if relevant, of removal of founder stock from the wild as described in paragraph 20 of the present document;

d) identify any urgent enforcement matters which need the attention of the Secretariat, the country concerned and/or the Standing Committee; and

e) establish an intersessional working group to work with the Secretariat with terms of reference that would include the review of the provisions of Resolution Conf. 17.7 (Rev. CoP18) and drafting recommendations for improvements for consideration at the 32nd meeting of the Animals Committee.

UNEP-WCMC Technical Report

SELECTION OF SPECIES FOR INCLUSION IN THE REVIEW OF CAPTIVE TRADE IN ANIMAL SPECIMENS

Report following CoP18

UN environment programme
WCMC

Selection of species for inclusion in the Review of captive trade in animal specimens: Report following CoP18

Prepared for
CITES Secretariat

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Cover Photo: Red-Eyed Leaf Frog (*Agalychnis callidryas*) by Chris, Adobe Stock

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Contents

1 Overview

To support the implementation of paragraph 2 a) i) to iv) of Resolution Conf. 17.7 (Rev. CoP18), the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) has produced two outputs of trade in animal specimens reported as produced in captivity.

The two outputs produced to support the selection of species-country combinations are:

1. A **species selection analysis** applying the six selection criteria to the trade in captive-bred and ranched specimens for 2014-2018 (sources C, D, F and R) (see Section 2 for data used, methods and detailed results); and
2. A **full output from the CITES Trade Database of annual report statistics** of relevant trade in captive-bred and ranched specimens for 2014-2018, sources C, D, F and R (see Section 3 for details and an information document for the summary output in Excel). This output provides an opportunity for Parties to examine trade levels for any species reported as captive produced in recent years, including taxa that did not meet the selection criteria in the analysis above.

In total, the selection analysis resulted in **135 species** and **238 species/country combinations** meeting at least one of the six criteria in paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP18) based on the methodologies presented. Results of the analysis can be found in Section 2 (Tables 3-5).

Criteria	Number selected
i) Significant increase	100 species and 121 species/country combinations met a least one of these criteria **(Table 3, p. 9)**
ii) Significant numbers	
ii) Shifts in source codes	
iv) Reporting inconsistencies	17 species and 66 species/country combinations met criteria iv) and v) **(Table 4, p. 22)**
v) Incorrect application of source codes	
vi) Legal acquisition	34 species and 52 species/country combinations met criteria vi) **(Table 5, p. 28)**
Total (all criteria combined)	135 species and 238 species/country combinations

It is hoped that these outputs will assist the Animals Committee with their work in selecting a limited number of species/country combinations of potential concern for inclusion in the Review of trade in animal specimens reported as produced in captivity following CoP18.

2 Species selection analysis

Introduction and scope

Based on the criteria specified in paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP18) and applying the methodology developed following CoP17 (see AC29 Doc. 14.1 Annex), an output of data from the CITES Trade Database was produced to assist the Animals Committee with the selection of cases. Additional feedback provided by the Animals Committee at AC29 in relation to the previous output were considered (see Appendix I on Considerations for improvement), but following consultation with the Secretariat, no changes to the methodology were applied for this second iteration.

The six selection criteria defined in paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP18) form the basis of the selection analysis; these are as follows, with abbreviated terms in bold used throughout this report for ease of reference:

Criteria	Description
i) Significant increase	Significant increases in trade in specimens declared as captive-produced (source codes C, D, F and R)
ii) Significant numbers	Trade in significant numbers of specimens declared as produced in captivity
iii) Shifts in source codes	Shifts and fluctuations between different captive-production 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: 'A' for animal species or '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)

Data included

Details of the data used (e.g. year range, Appendix, trade data output type, etc.) in the selection process for each criterion are provided in Table 1.

While the focus of each criterion was on captive-produced trade (source codes C, D, F and R), wild-sourced trade (source codes W, U and trade reported without a source specified) was also considered in the context of criterion iii) relating to shifts between source codes and criterion vi) relating to reporting inconsistencies.

Data were extracted from the CITES Trade Database (trade.cites.org) on 11th May 2020.

Table 1: Data included for the criteria in paragraph 2 a) of Res. Conf. 17.7 (Rev. CoP18).

	Criteria i), ii) and iii)	Criteria iv) and v)	Criterion vi)
CITES Trade Database report type	Direct trade only (re-exports are excluded) Report type is dependent on the criterion: • Criteria i) & ii): Gross exports[1] • Criterion iii): Exporter-reported data only	Direct trade only (re-exports are excluded) Report type is dependent on the criterion: • Criterion iv): Exporter- and importer-reported data; • Criterion v): Exporter-reported data only	Direct and indirect trade into the focal country, but species/country combinations were selected on the basis of direct trade from the focal country. Gross exports were analysed for Criterion vi)
Appendix	Appendix I & II	Appendix I only[2]	Appendix I & II
Year range	2014-2018 provided in the output *[Data from 2011-2018 used in the analysis/selection process]*		
Source codes[3]	Criteria i) – iv) & vi): C, D, F, R Criteria v): D only *[For Criteria iii) and vi), trade in wild specimens (W= wild, U = unknown, and no source reported) was also used in the analysis in order to assess shifts or differences in reporting between wild to captive-produced sources.]*		
Purpose codes[3]	All Purpose codes		
Terms included	*Selected terms[4]:* baleen, bodies, bones, carapaces, carvings, caviar, cloth, eggs, egg (live), fins, gall and gall bladders, horns and horn pieces, ivory pieces, ivory carvings, live, meat, musk, plates, raw corals, scales, shells, skin pieces, skins, skeletons, skulls, teeth, trophies, and tusks.		Live only into the focal country, but selected on the basis of trade exported for any of the selected terms listed for i) – v)
Units of measure	Number (unit = blank) *[Trade in other units of measure (e.g. kilograms, metres, etc.) were excluded]*		

[1] Gross exports: the quantities reported by the exporter and importer were compared and the larger quantity was used in the analysis

[2] On the basis that Parties do not report consistently on imports of Appendix II species (in relation to importer-exporter discrepancies for criteria iv), and on the basis that criteria v) relates to the use of source code D (which is applicable only to specimens of Appendix I species).

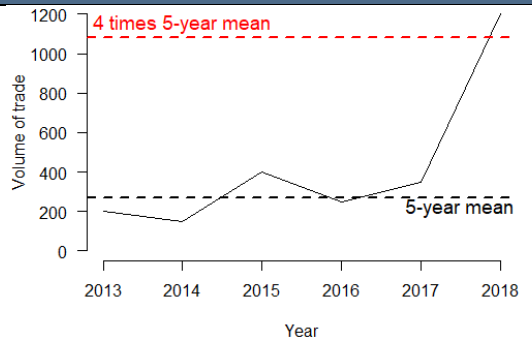
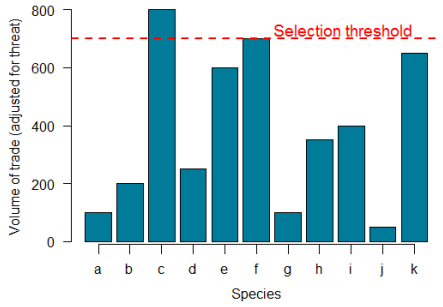
[3] A full list and description of source and purpose codes is specified in Resolution Conf. 12.3 (Rev. CoP18).

[4] Note that when applying the individual criteria, the analysis is conducted on the combined values for all the terms outlined above, but that quantities for each individual trade term have been included in the outputs in order to provide a more complete picture of the trade. A full list of "terms" (i.e. descriptions of specimens in trade) traded is available in the CITES Trade Database interpretation guide, see: https://trade.cites.org/cites_trade_guidelines/en-CITES_Trade_Database_Guide.pdf

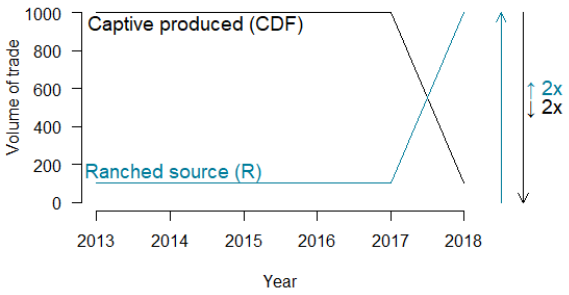
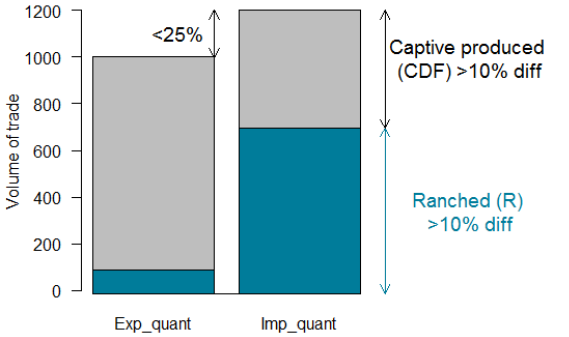
Methodology

To produce a list of species/country combinations of relevance for consideration by the Animals Committee ("**Selection Analysis**" output), the CITES trade data were filtered using a set of criteria to extract the species showing noteworthy patterns of trade in accordance with paragraph 2 a) of Res. Conf. 17.7 (Rev. CoP18). Details of the methodology applied to select species/country combinations for each of the six criteria are described below (Table 2).

Table 2: Overview of methods for producing the Selection Analysis in order to select candidate species/country combinations for consideration based on the six criteria defined in paragraph 2 a) of Res. Conf. 17.7 (Rev. CoP18).

Criteria	Aim	Methods	Illustration / Remarks
Criterion i) Significant increase	To detect significant increases in trade in the most recent year with near-complete data.	The most recent year of trade data was compared to average trade levels over the previous five years, with the aim of identifying potential emerging trends towards higher volumes of captive-produced trade in species/country combinations. Species/country combinations met this criterion if: • The volume of direct gross exports for the most recent year of data (2018) was >4 times the mean of the preceding five years (2013-2017); and • Threshold: Average annual trade over the most recent five years (2014-2018) was >200 (or >50 if the species is considered CR, EN by IUCN, or endemic according to Species+). Including a minimum threshold was necessary to produce a manageable output. *This methodology aligns with the "sharp increase" criterion of the Review of Significant Trade process, although here the selection is at the level of species/country combination.*	
Criterion ii) Significant numbers	To detect captive-produced species that were being exported at significant volumes.	To identify representative species traded at high volumes across taxonomic groups, the most highly traded species/country combinations within each order were selected. Species/country combinations met this criterion if: • Average annual trade (based on gross exports) over the most recent five years was >50 (or >12.5 if the species is considered CR, EN or endemic); and • Threshold: It was within the **top 5%** of species/country combinations traded within the order over the five most recent years or within the **top 1%** (after adjusting for globally threatened species) if the number of species/country combinations within the order was >200. For globally threatened species, a more precautionary approach was taken, with the average trade volume for species considered globally threatened[5] first multiplied by 10 before the 5% or 1% thresholds were applied. Inclusion of only the top 5% of trade by order and a minimum threshold for trade was necessary to produce a manageable output. *This methodology aligns with the "high volume" criterion of the Review of Significant Trade process, although here the selection is at the level of species/country combination.*	 *Illustration: Species c (already adjusted for threat status) exceeds the threshold and is the only species selected from within this order.*

[5] Defined as species classified in the IUCN Red List of Threatened Species as Critically Endangered, Endangered, and Vulnerable. For this criterion, species considered Near Threatened and Data Deficient have also been included.

Criteria	Aim	Methods	Illustration / Remarks
Criterion iii) Shifts in source codes	To identify notable shifts in source codes over time as reported by countries of export.	Volumes of trade from different source codes were compared to identify instances where there was a substantial change ("shift") in the reported source code over time. This methodology focuses specifically on shifts from wild sources to captive-produced sources, as follows: • Wild (W, U, source unreported) ➡ captive-produced/ranched (C, D, F, R combined) • Ranched (R) ➡ captive-produced (C, D, F combined). Species/country combinations met this criterion if: • Exporter-reported trade in one source code or a set of source codes in a focal year (2016-2018) increased to more than double the mean of the previous 5 years; • There was a corresponding decrease in trade in another set of sources for the same focal year; and • Threshold: Average annual trade over the most recent five years for both sets of source codes >50 (or >12.5 if the species is considered CR, EN or endemic). Including a minimum threshold was necessary to produce a manageable output for the AC.	
Criterion iv) Reporting inconsistencies	To identify notable discrepancies in reported source codes between countries of export and import.	Reported volumes of trade in Appendix I species from different source codes were compared between importers and exporters to identify instances where overall volumes of trade were similar (<25% difference), but source codes differed between reporting Parties (exporter vs importer) for the same species. Species/country combinations met this criterion if: • The sums of total exporter- and importer-reported trade in the most recent three years (2016-2018) differed by <25% (for wild and captive source codes combined); • Trade in one set of sources differed by >10% between exporter and importer in the most recent three years; • There was a corresponding difference of >10% in another set of source codes between importer and exporter; and • Threshold: Sum of trade over the most recent three years for both sets of source codes >20. Inconsistencies in reporting were checked between the following source code pairings: • Wild (W, U, source unreported) and captive-produced/ranched (C, D, F, R combined) • Ranched (R) and captive-produced (C, D, F combined). *Instances where importers and/or exporters had not submitted annual reports in some years were removed to avoid false positives. For the output, only trade data for 2014-2018 included.*	 In this illustration, total volumes are similar, but importers primarily reported the trade as ranched, whereas exporters reported as captive-produced. Note: Some discrepancies may be accounted for by differences in reporting (e.g. actual trade or permits issued); or "year-end trade" (trade that is reported on by an exporter in one year, and an importer in the following year).

Criteria	Aim	Methods	Illustration / Remarks
Criterion v) Incorrect application of source codes	To detect the potential for incorrect application of codes by countries of export (e.g. 'D' without a registered facility).	Species/country combinations met this criterion if direct trade was reported as source code 'D' in the most recent three years (2016-2018) for an Appendix I species with no **current** CITES registered facility in the country of export. There was no threshold applied for this criterion. For this criterion, exporter-reported trade [Appendix I / source D] was cross-checked with the list of CITES Registered breeding operations downloaded from the CITES website[6]: www.cites.org/eng/common/reg/cb/summary.html.	With respect to the first part of this criterion, as reflected in the Resolution (relating of misreporting source code 'A' for animals), it is not possible to undertake an informative analysis on trade reported for animals using source code 'A' within the CITES Trade Database. CITES annual reports are checked for errors by UNEP-WCMC before they are entered into the database and any non-compatible taxon-term codes such as 'A' for animals are corrected to source code 'C' as part of the quality assurance process. In general, this discrepancy does not arise often in the data checking process.
Criterion vi) Legal acquisition	To detect cases where there may be concerns about whether the founder stock was legally acquired.	Where species were being exported from non-range States at high volumes, the CITES trade data were searched for evidence of a founder stock being either directly or indirectly imported into that country/territory from a range State. Species/country combinations met this criterion if exports reported from non-range States during the most recent three years exceeded a threshold of 1000 units (based on gross exports) and either: (a) There was no evidence of any live imports (of any source) into the country from any range State for the species since 1975; and No evidence of any indirect imports from a non-range State (this accounts for imports into the EU28 as a regional economic integration organisation) since 1975; or (b) The first live imports from a range State, were reported *after* the first reported export from the non-range State.	It is important to note that this criterion is based only on CITES trade data, and there are many reasons why there may be no evidence of the original import in the CITES Trade Database. For example: • Founder stock may have been acquired prior to CITES coming into force, prior to the species being listed in the Appendices to the Convention, or prior to the accession of the relevant Parties; • Annual reports may be missing; and • Whilst nomenclature changes have been accounted for where possible, some species may be selected if they were previously listed under a different taxonomic name

[6] Only the current record of CITES Registered breeders is available on the CITES website. The methods did not account for historical records for facilities that were previously included on the CITES register but have subsequently been removed from the list.

Results – Species Selection

In total, **135 species** and **238 species/country combinations** met at least one of the six criteria in paragraph 2 a) of Resolution Conf. 17.7 (Rev. CoP18) based on the methodologies applied. Where possible, criteria sharing similar data requirements (e.g. i, ii and iii) were combined in order to minimise the number of tables and to ease with decision-making by showing cases where multiple criteria were met. The results of the analysis showing which species/country combinations met each criteria are included in Tables 3-5, as follows:

Overview of results of the Selection Analysis

Table No.	Criteria	Number selected
Table 3 (p. 9)	i) Significant increase	100 species and 121 species/country combinations met a least one of these criteria *(including an indication of whether the species also met criterion vi))*
	ii) Significant numbers	
	ii) Shifts in source codes	
Table 4 (p.22)	iv) Reporting inconsistencies	17 species and 66 species/country combinations met a least one of these criteria
	v) Incorrect application of source codes	
Table 5 (p. 28)	vi) Legal acquisition	34 species and 52 species/country combinations met criteria vi) (only)
Total (all criteria combined)		135 species and 238 species/country combinations

To assist the CITES Animals Committee with the task of selecting species, the following contextual information is provided in each table, where applicable:

- The **criterion met:** i) = "significant increase", ii) = "significant number", iii) = "shift source", iv) = "reporting inconsistencies", v) = "incorrect source code" and vi) = "legal acquisition";
- **Percentage of trade** that was reported over the five years for each captive-produced source (C, D, F, R), based on gross exports (Tables 3 and 5) and exporter-reported trade (Table 4);
- The Global **conservation status** of the species, if assessed, as published in The IUCN Red List of Threatened Species[7];
- Whether the species is **endemic**, according to the distribution records within Species+[8];
- Whether the country of export is considered a **range State** for the species ("native") according to the distribution records within Species+, or is not a range State ("non-native");
- If not a range State, whether the country is defined as a **neighbouring State**[9] (i.e. country shares a border with a range State), according to the distribution records within Species+;
- An indication of species where there is **no evidence of any exports from any range State** (only applicable to exports from non-range States)[10];
- The **year of first listing** in the CITES Appendices;
- Any year a **quota** has been in place during 2014-2020[11]; and
- Whether a current Standing Committee **recommendation to suspend trade** is in place.

[7] www.iucnredlist.org Data downloaded on 23rd March 2020
[8] Species+ is a database maintained by UNEP-WCMC and accessible from speciesplus.net.
[9] Defined by mledoze (2017). World countries in JSON, CSV and XML and Yaml. https://mledoze.github.io/countries/ [accessed on: 21/03/2017].
[10] Based only on the CITES trade data.
[11] Full quota details provided in an information document to AC31

Criteria i), ii) and iii)

Due to the similarities in the data requirements, the results for criteria i), ii) and iii) have been combined into one output. Table 3 provides details of all those species/country combinations that meet at least one of these criteria.

These criteria are defined as:

i) **Significant increase:** significant increases in trade in specimens declared as captive-produced (source codes C, D, F and R)**;**
ii) **Significant numbers:** trade in significant numbers of specimens declared as produced in captivity;
iii) **Shifts in source codes:** shifts and fluctuations between different captive-production source codes;

Where relevant, it is also indicated in the table if criterion vi) (relating to legal acquisition) was also met. Where multiple criteria are met, the results are provided in bold.

In total, 100 species and 121 species/country combinations met at least one of these three criteria and are included in Table 3.

Key

Exporter: see Appendix 2 for ISO codes and country and territory names
Term: see Appendix 3 for term codes and descriptions
IUCN Red List: NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered, EW = Extinct in the Wild, DD = Data Deficient.
Criteria met: species/country combinations meeting multiple criteria are in bold.
vi) legal acquisition[(a)] = no evidence of imports into the focal exporting country, vi) legal acquisition[(b)] = first year of import reported after first year of export from the focal exporting country, * = no evidence of exports from any range State(s)
Exporter distribution tag: native = exporter falls within taxon's natural range; non-native = exporter considered to be outside of the species natural range; introduced = taxon has established wild populations in a non-native range State due to accidental or deliberate release. † = neighbouring a range State
% trade by source: C = captive-bred, D = Appendix I captive-bred in a registered breeding facility, F = captive-born, R = ranched.

Table 3: Species/country combinations that met criteria i), ii) or iii) based on direct trade in captive-produced (C, D, F, and R) specimens, with an indication if criteria vi) was also met. Quantities are in gross exports and rounded to the nearest whole number, when applicable. Data extracted from the CITES Trade Database on 11th May 2020. See Key on p. 8.

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Mammals																
Artiodactyla																
Bovidae	*Kobus leche* (II)	ZA	BOD	4	0	1	3	18	**2 met: ii) significant volume; iii) source shift (W-CDFR 2016)**	NT		introduced	1975			C(4.4%); F(90.3%); R(5.3%)
			HOR	7	6	4	18	1								
			LIV	50	909	689	518	365								
			SKI	7	8	64	12	4								
			SKP	2	1	2	0	1								
			SKU	3	23	27	8	3								
			TRO	654	478	436	593	234								
Carnivora																
Felidae	*Panthera leo* (I/II)	ZA	BOD	16	620	850	109	33	1 met: ii) significant volume	VU		native	1975	2017-18		C(99.5%); F(0.5%)
			BON	42	122	217	160	0								
			CAR	13	0	0	0	0								
			LIV	161	138	198	386	176								
			SKE	1155	664	1557	646	635								
			SKI	14	52	52	26	22								
			SKP	0	0	1	0	0								
			SKU	78	74	115	6	8								
			TEE	9	4	10	0	0								
			TRO	1056	1139	731	569	293								
Primates																
Cercopithecidae	*Macaca fascicularis* (II)	CN	BON	0	32	0	0	0	1 met: ii) significant volume	LC		non-native †	1977			C(99.6%); F(0.4%)
			LIV	25122	19306	22822	21940	30450								
			SKI	0	0	200	0	0								
		MU	LIV	10846	8569	8657	10500	11259	1 met: ii) significant volume			introduced				C(23.6%); F(76.4%)
Proboscidea																
Elephantidae	*Elephas maximus* (I)	LA	LIV	21	6	50	2	8	1 met: ii) significant volume	EN		native	1975	2014-17		C(100%)
Rodentia																
Chinchillidae	*Chinchilla lanigera* (I)	BO	SKI	300	0	0	0	0	1 met: ii) significant volume *	EN		non-native †	1977			C(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Birds																
Anseriformes																
Anatidae	*Branta sandvicensis* (I)	NL	LIV	28	20	14	0	4	1 met: ii) significant volume	VU	✓	non-native	1975			C(100%)
Ciconiiformes																
Threskiornithidae	*Geronticus eremita* (I)	FR	LIV	0	70	7	7	0	1 met: ii) significant volume	EN		non-native †	1976			C(100%)
Columbiformes																
Columbidae	*Goura cristata* (II)	SG	LIV	11	17	27	29	41	1 met: ii) significant volume	VU	✓	non-native	1975			C(100%)
Falconiformes																
Falconidae	*Falco cherrug* (II)	AE	EGG	0	0	22	0	0	1 met: iii) source shift (W-CDFR 2016)	EN		native	1975			C(74.8%); F(7.1%); R(18.1%)
			LIV	14	1	14	16	88								
		DE	BOD	1	2	0	1	1	1 met: ii) significant volume			native				C(96.3%); D(3.7%)
			LIV	155	159	151	258	361								
			TRO	0	3	0	0	0								
		RU	LIV	338	356	198	183	212	1 met: ii) significant volume			native		2014-18; 2020	✓	C(98.5%); F(1.5%)
Galliformes																
Phasianidae	*Pavo muticus* (II)	ID	LIV	37	88	50	4	0	1 met: ii) significant volume	EN		native	1977			C(100%)
Gruiformes																
Otididae	*Chlamydotis macqueenii* (I)	AE	BOD	0	2	0	7	6	1 met: ii) significant volume	VU		native	1975			C(63.1%); F(13.6%); R(23.4%)
			EGG	0	0	0	0	1								
			LIV	7105	5732	1512	10970	14372								
			TRO	1	0	0	0	0								
Passeriformes																
Estrildidae	*Lonchura oryzivora* (II)	CU	LIV	11700	4420	10450	17950	23500	**2 met: ii) significant volume; vi) legal acquisition[(a)]**	EN	✓	non-native	1997			C(100%)
Piciformes																
Ramphastidae	*Ramphastos toco* (II)	ZA	BOD	3	0	0	4	1	1 met: ii) significant volume	LC		non-native	1992			C(100%)
			LIV	145	6	5	0	2000								
			TRO	0	3	0	0	0								

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Psittaciformes																
Psittacidae	*Agapornis fischeri* (II)	PH	LIV	30238	15918	27316	27100	9267	**2 met: ii) significant volume; vi) legal acquisition[(a)]**	NT		non-native	1976			C(100%)
		ZA	LIV	66310	4580	86584	91185	142070	**2 met: ii) significant volume; iii) source shift (W-CDFR 2016-2018)**			non-native †				C(100%)
	Agapornis personatus (II)	ZA	LIV	26180	95082	29911	47935	56188	1 met: ii) significant volume *	LC	✓	non-native	1976			C(100%)
	Aratinga solstitialis (II)	SG	LIV	28	28	51	58	308	1 met: i) significant increase	EN		non-native	1976			C(100%)
		TH	LIV	0	14	11	214	1731	**2 met: i) significant increase; vi) legal acquisition [(a)]**			non-native				C(100%)
		ZA	BOD	2	0	0	0	0	**2 met: ii) significant volume; vi) legal acquisition [(a)])**			non-native				C(100%)
			LIV	18426	8782	9886	12607	21599								
			TRO	0	0	0	0	3								
	Bolborhynchus lineola (II)	ZA	LIV	0	6	20	0	1878	**2 met: i) significant increase; vi) legal acquisition [(a)]***	LC		non-native	1976			C(100%)
	Cyanoramphus unicolor (II)	BE	LIV	0	68	0	0	280	1 met: i) significant increase *	VU	✓	non-native	1975			C(100%)
	Psittacus erithacus (I)	BH	LIV	9	88	1049	0	1	1 met: iii) source shift (W-CDFR 2016)	EN		non-native	1976			C(99.9%); F(0.1%)
		MZ	LIV	0	721	1302	0	200	1 met: iii) source shift (W-CDFR 2016)			non-native †				C(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Psittacus erithacus (I) (*cont.*)	ZA	BOD	1	1	2	0	0	**2 met: ii) significant volume; iii) source shift (W-CDFR 2016)**	EN		non-native	1976			C(95.3%); D(4.6%)
			LIV	76457	53122	112632	7538	6474								
			TRO	0	2	52	0	0								
									Rheiformes							
Rheidae	*Rhea americana* (II)	UY	EGG	300	200	0	0	0	1 met: ii) significant volume	NT		native	1976			C(100%)
			SHE	900	700	150	0	0								
									Sphenisciformes							
Spheniscidae	*Spheniscus demersus* (II)	ZA	BOD	0	0	1	0	0	1 met: ii) significant volume	EN		native	1975			C(79.2%); F(20.8%)
			LIV	26	16	56	39	39								
			TRO	1	3	0	2	0								
									Strigiformes							
Tytonidae	*Tyto alba* (II)	BE	LIV	34	64	115	70	32	1 met: ii) significant volume	LC		native	1976			C(100%)
									Reptiles							
									Crocodylia							
Crocodylidae	*Crocodylus niloticus* (I/II)	MZ	LIV	15000	32000	10000	6000	0	1 met: iii) source shift (W-CDFR 2017)	LC		native	1975	2014-16; 2018		C(2.4%); R(97.6%)
			SKI	11293	11161	32461	84245	69321								
			SKP	1050	0	5843	0	34871								
			SKU	64	0	0	0	0								
			TRO	0	0	1	0	0								
		ZM	SKE	306	0	0	0	0	1 met: iii) source shift (W-CDFR 2016)			native		2015-17		C(3.5%); R(96.5%)
			SKI	57337	66498	112374	31853	29672								
			SKP	43700	43050	17516	45026	6000								
			TRO	0	0	3	0	1								
	Crocodylus novaeguineae (II)	ID	SKI	250	275	1368	617	172	1 met: iii) source shift (W-CDFR 2016)	LC		native	1975	2014-19		R(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Crocodylus siamensis (I)	TH	BOD	519	37	101	146	89	1 met: ii) significant volume	CR		native	1975			D(100%)
			BON	0	0	0	500	4								
			CAR	0	0	0	1	0								
			EGG	0	50	0	0	0								
			EGL	0	0	0	50	0								
			GAB	6	0	0	0	0								
			LIV	19	250	44	12	2038								
			MEA	353365	475474	0	0	1								
			SKI	26454	26914	14588	12324	12201								
			SKP	860	778	50	0	1114								
			SKU	354	31	257	212	130								
			TEE	0	0	0	500	0								
			TRO	3	250	0	0	0								
		VN	BOD	1	5	0	5	62	1 met: ii) significant volume			native		2014- 18		C(0.3%); D(99.7%)
			BON	0	0	0	1542	2444								
			CAR	0	0	0	0	10								
			LIV	23876	30618	63225	47902	52730								
			MEA	0	0	25	0	0								
			SKI	20580	12854	16780	29240	40112								
			SKP	0	8610	1100	12694	8250								
			SKU	0	0	0	0	20								
									Sauria							
Agamidae	*Uromastyx ornata* (II)	SY	LIV	100	50	480	300	200	1 met: iii) source shift (R-CDF 2016)	LC		non-native †	1977			C(100%)
Chamaeleonidae	*Chamaeleo calyptratus* (II)	CZ	LIV	5385	4923	6346	14540	12085	1 met: ii) significant volume	LC		non-native	1977			C(100%)
	Furcifer pardalis (II)	CZ	LIV	362	894	1452	2863	2780	1 met: ii) significant volume	LC	✓	non-native	1977			C(97.4%); F(2.6%)
	Kinyongia boehmei (II)	KE	LIV	531	683	846	626	885	1 met: ii) significant volume	NT	✓	native	1977			C(100%)
	Trioceros jacksonii (II)	KE	LIV	2052	3244	5247	5128	5245	1 met: iii) source shift (R-CDF 2016)	LC		native	1977			C(100%)
Gekkonidae	*Phelsuma grandis* (II)	TH	LIV	0	0	0	496	5643	**2 met: ii) significant volume; vi) legal acquisition** [(b)]	LC	✓	non-native	1977			C(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Iguanidae	*Iguana iguana* (II)	PA	LIV	0	0	1000	1300	0	1 met: iii) source shift (R-CDF 2016)	LC		native	1977			C(100%)
		SV	LIV	253511	266399	280233	106653	76605	1 met: ii) significant volume			native				C(100%)
Varanidae	*Varanus exanthematicus* (II)	TG	LIV	9038	10248	8904	9417	8789	1 met: ii) significant volume	LC		native	1975	2014-20		C(0.6%); F(10.4%); R(88.9%)
	Varanus ornatus (II)	TG	LIV	570	1253	1977	650	396	**2 met: ii) significant volume; iii) source shift (W-CDFR 2016)**	VU		native	1975	2014-20		R(100%)
Serpentes																
Boidae	*Boa constrictor* (II)	GB	LIV	3	25	71	114	263	1 met: i) significant increase	EN		non-native	1975			C(100%)
		NL	LIV	11	0	32	41	197	1 met: i) significant increase			non-native				C(100%)
Colubridae	*Ptyas mucosus* (II)	ID	LIV	65000	18300	28200	76100	49900	1 met: ii) significant volume	NE		native	1984	2014-19		C(76.2%); F(23.8%)
			MEA	0	0	28907	10200	0								
Pythonidae	*Python bivittatus* (II)	TH	SKI	5468	1680	7818	4775	144	1 met: ii) significant volume	VU		native	1975			C(100%)
			SKP	6100	0	0	0	0								
		VN	EGG	0	17000	0	0	0	1 met: ii) significant volume			native				C(100%)
			EGL	0	0	0	1000	0								
			GAB	0	0	0	10	0								
			LIV	20	870	1370	598	2165								
			SKI	151385	115830	122452	158210	133227								
	Python regius (II)	TG	LIV	73872	44403	75139	58787	58026	1 met: ii) significant volume	LC		native	1975	2014-20		F(9.7%); R(90.3%)
Testudines																
Emydidae	*Malaclemys terrapin* (II)	US	LIV	14220	5200	6452	2743	8528	1 met: ii) significant volume	VU		native	2013			C(0.5%); F(99.5%)
Geoemydidae	*Mauremys japonica* (II)	JP	LIV	224	2574	3282	2225	1005	1 met: iii) source shift (W-CDFR 2016)	NT	✓	native	2013			F(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Podocnemididae	*Podocnemis unifilis* (II)	PE	LIV	320141	434948	607622	799206	613182	1 met: ii) significant volume	VU		native	1975			C(12.4%); F(12.7%); R(74.9%)
Testudinidae	*Astrochelys radiata* (I)	MG	LIV	0	0	0	0	1000	1 met: i) significant increase	CR	✓	native	1975			C(100%)
	Centrochelys sulcata (II)	US	LIV	11095	17511	19923	18087	5263	1 met: ii) significant volume	VU		non-native	1975			C(37.1%); F(62.9%)
	Kinixys belliana (II)	TG	LIV	1861	1113	2382	605	66	**2 met: iii) source shift (W-CDFR 2016); vi) legal acquisition** [(a)]	NE		non-native	1975	2014-19		C(1.7%); F(25.2%); R(73.2%)
	Testudo graeca (II)	SY	LIV	16600	13350	13770	7850	7540	1 met: ii) significant volume	VU		native	1975			C(99.2%); D(0.8%)
	Testudo hermanni (II)	MK	LIV	12470	15111	29067	19700	14043	**3 met: ii) significant volume; iii) source shift (W-CDFR 2016); vi) legal acquisition** [(a)]	NT		non-native †	1975			C(100%)
		SI	LIV	10347	12450	15750	15050	20758	1 met: ii) significant volume			native				C(100%)
	Testudo horsfieldii (II)	UZ	LIV	52703	49381	26500	73200	65127	**2 met: ii) significant volume; iii) source shift (R-CDF 2016)**	VU		native	1975	2014-19		C(15.7%); F(12.8%); R(71.5%)
Trionychidae	*Amyda cartilaginea* (II)	TH	LIV	0	0	0	505	13000	1 met: i) significant increase	VU		native	2005			C(100%)
Amphibians																
Anura																
Bufonidae	*Nectophrynoides asperginis* (I)	US	LIV	0	1500	2100	600	2800	**2 met: ii) significant volume; vi) legal acquisition** [(a)]*	EW	✓	non-native	1975			F(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Dendrobatidae	*Dendrobates auratus* (II)	NI	LIV	0	0	0	1105	2146	1 met: i) significant increase	LC		native	1987	2019		C(100%)
	Oophaga pumilio (II)	NI	LIV	1236	4477	3980	4860	4270	1 met: ii) significant volume	LC		native	1987	2015-17; 2019		C(100%)
Hylidae	*Agalychnis callidryas* (II)	NI	LIV	20150	22181	18911	22104	20344	1 met: ii) significant volume	LC		native	2010	2014-17; 2019		C(100%)
Microhylidae	*Dyscophus guineti* (II)	CZ	LIV	0	0	0	1080	900	**2 met: i) significant increase; ii) significant volume**	LC	✓	non-native	2017			C(100%)
		DE	LIV	0	0	0	30	750	1 met: i) significant increase			non-native				C(96.2%); F(3.8%)
Caudata																
Ambystomatidae	*Ambystoma mexicanum* (II)	AT	EGL	0	0	0	0	1180	**2 met: i) significant increase; vi) legal acquisition** [(a)]	CR	✓	non-native	1975			C(100%)
			LIV	0	0	0	0	1180								
		US	LIV	937	710	275	1074	136	1 met: ii) significant volume			non-native †				C(100%)
Fish																
Acipenseriformes																
Acipenseridae	*Acipenser baerii* (II)	FR	BOD	36	20	0	0	0	**2 met: ii) significant volume; vi) legal acquisition** [(a)]	EN		non-native	1998			C(100%)
			CAV	1200037	0	25.2	100001	10								
			EGL	900000	900000	60000	685000	0								
			FIN	76	0	0	0	0								
			LIV	39658	42867	0	0	0								
		PL	CAV	0	0	0	0	334	**4 met: i) significant increase; ii) significant volume; iii) source shift (W-CDFR 2018); vi) legal acquisition** [(a)]			non-native †				C(100%)
			EGL	0	0	0	0	900000								
			LIV	0	0	650	0	0								

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Acipenser gueldenstaedtii (II)	FR	CAV	35000	0	0	100000	0	1 met: ii) significant volume	CR		non-native	1998			C(100%)
			EGL	0	425000	125000	100000	0								
			LIV	5000	0	0	0	0								
			SKI	0	0	0	16	0								
		PL	CAV	0	0	0	0	334	1 met: i) significant increase			non-native †				C(100%)
			EGL	0	0	0	200000	200000								
	Acipenser ruthenus (II)	RO	LIV	0	0	0	5000	29700	1 met: i) significant increase	VU		native	1998	2014-15, 2017, 2020		C(100%)
Ceratodontiformes																
Neoceratodontidae	*Neoceratodus forsteri* (II)	AU	LIV	64	5	247	178	162	1 met: ii) significant volume	EN	✓	native	1975			C(81.7%); F(18.3%)
Osteoglossiformes																
Arapaimidae	*Arapaima gigas* (II)	CO	LIV	0	469	1154	7350	9052	1 met: i) significant increase	DD		native	1975			C(100%)
			SKI	0	0	0	200	0								
Osteoglossidae	*Scleropages formosus* (I)	MY	LIV	132088	119269	98805	214089	217674	1 met: ii) significant volume	EN		native	1975			C(0.1%); D(99.9%)
Perciformes																
Labridae	*Cheilinus undulatus* (II)	ID	LIV	0	0	0	8000	10000	**2 met: i) significant increase; ii) significant volume**	EN		native	2005	2014-19		R(100%)
Siluriformes																
Pangasiidae	*Pangasianodon gigas* (I)	TH	LIV	0	0	1000	30	60	1 met: ii) significant volume	CR		native	1975			D(100%)
Syngnathiformes																
Syngnathidae	*Hippocampus comes* (II)	VN	BOD	200	150	0	0	0	1 met: ii) significant volume	VU		native	2004			C(0.4%); F(99.6%)
			LIV	37496	30708	1311	0	0								
	Hippocampus ingens (II)	MX	BOD	0	0	0	700	0	1 met: iii) source shift (W-CDFR 2017)	VU		native	2004			C(100%)
			LIV	750	0	672	3700	0								
Invertebrates																
Araneae																
Theraphosidae	*Brachypelma albopilosum* (II)	NI	LIV	0	1900	1416	4735	8233	1 met: i) significant increase	LC		distribution uncertain	1995	2016; 2017; 2019		C(100%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Brachypelma baumgarteni (II)	CA	LIV	0	1800	0	0	0	1 met: ii) significant volume	EN	✓	non-native	1995			C(50%); F(50%)
	Brachypelma boehmei (II)	MX	LIV	10	0	2	1500	267	1 met: ii) significant volume	EN	✓	native	1995			C(100%)
	Brachypelma hamorii (II)	DE	LIV	0	0	0	100	950	**2 met: i) significant increase; vi) legal acquisition[(b)]**	VU	✓	non-native	1995			C(100%)
		NL	LIV	0	0	0	0	353	1 met: i) significant increase			non-native				C(100%)
	Brachypelma smithi (II)	MX	LIV	10	0	0	291	929	1 met: i) significant increase	NT	✓	native	1985			C(100%)
									Arhynchobdellida							
Hirudinidae	*Hirudo medicinalis* (II)	RO	LIV	11000	14000	21000	16500	36000	1 met: iii) source shift (W-CDFR 2016)	NT		non-native †	1987	2014-17		C(100%)
		RU	LIV	123000	121000	122000	61000	3000	1 met: ii) significant volume			native				C(100%)
									Lepidoptera							
Papilionidae	*Ornithoptera aesacus* (II)	ID	BOD	160	244	402	152	134	1 met: iii) source shift (R-CDF 2016)	VU	✓	native	1979			F(85.3%); R(14.7%)
	Ornithoptera chimaera (II)	ID	BOD	134	172	138	134	68	1 met: iii) source shift (R-CDF 2017)	LC		native	1977			F(76.8%); R(23.2%)
	Ornithoptera croesus (II)	ID	BOD	3911	2811	1914	296	0	1 met: ii) significant volume	NT	✓	native	1979			C(0.7%); F(89.5%); R(9.9%)
			TRO	0	148	0	0	0								
	Ornithoptera goliath (II)	ID	BOD	2249	3071	1829	710	2860	1 met: iii) source shift (R-CDF 2016)	LC		native	1977			C(0.2%); F(65.9%); R(33.9%)
			TRO	0	0	0	0	20								
	Ornithoptera meridionalis (II)	ID	BOD	377	484	686	376	187	1 met: iii) source shift (R-CDF 2016)	NT		native	1977			F(70.9%); R(29.1%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Ornithoptera paradisea (II)	ID	BOD	510	499	641	329	209	1 met: iii) source shift (R-CDF 2016)	NT		native	1977			C(1.1%); F(69.3%); R(29.7%)
			TRO	0	0	0	0	4								
	Ornithoptera rothschildi (II)	ID	BOD	1486	1657	1092	287	912	1 met: iii) source shift (R-CDF 2016)	NT	✓	native	1979			C(0.6%); F(44%); R(55.4%)
			TRO	0	0	0	0	20								
	Ornithoptera tithonus (II)	ID	BOD	597	561	743	432	337	1 met: iii) source shift (R-CDF 2016)	LC	✓	native	1979			F(64%); R(36%)
	Trogonoptera brookiana (II)	ID	BOD	560	960	1071	375	285	1 met: iii) source shift (R-CDF 2016)	LC		native	1979			C(1.5%); F(79%); R(19.4%)
	Troides criton (II)	ID	BOD	1328	930	1221	548	210	1 met: iii) source shift (R-CDF 2016)	LC	✓	native	1979			F(93.5%); R(6.5%)
	Troides dohertyi (II)	ID	BOD	112	139	100	75	34	1 met: iii) source shift (R-CDF 2016)	VU	✓	native	1979			F(71.3%); R(28.7%)
	Troides haliphron (II)	ID	BOD	1171	1520	998	707	252	1 met: iii) source shift (R-CDF 2016)	LC	✓	native	1979			F(74.2%); R(25.8%)
	Troides helena (II)	ID	BOD	2193	2738	1562	1648	930	1 met: iii) source shift (R-CDF 2016)	LC		native	1979			C(0.3%); F(78.5%); R(21.2%)
			LIV	1600	0	1400	0	0								
	Troides hypolitus (II)	ID	BOD	693	1020	535	524	351	1 met: iii) source shift (R-CDF 2016)	LC	✓	native	1979			C(0.3%); F(76.2%); R(23.5%)
	Troides oblongomaculatus (II)	ID	BOD	142	544	211	240	120	1 met: iii) source shift (R-CDF 2017)	LC		native	1979			F(71.9%); R(28.1%)
	Troides rhadamantus (II)	PH	BOD	1793	1413	321	106	143	1 met: ii) significant volume	LC	✓	native	1979			C(99.6%); F(0.4%)
			EGL	0	0	100	0	0								
			LIV	62675	74635	12709	8090	9374								
Scorpiones																
Scorpionidae	*Pandinus imperator* (II)	TG	LIV	10325	4500	0	0	0	1 met: ii) significant volume	NE		native	1995	2016-20	✓	R(100%)
Veneroida																
Tridacnidae	*Tridacna maxima* (II)	AU	LIV	5830	8206	5170	4340	11762	1 met: ii) significant volume	NT		native	1985			C(5.4%); F(94.6%)
		NA	LIV	7975	19346	7803	5583	6643	1 met: ii) significant volume			native				C(25.9%); F(74.1%)

Family	Species	Exporter	Term	2014	2015	2016	2017	2018	Criteria met	IUCN Red List	Endemic	Exporter dist. Tag	Year CITES listed	Quotas	Suspensions	% trade by source
Corals																
Helioporacea																
Helioporidae	*Heliopora coerulea* (II)	ID	COR	6	61	0	0	0	1 met: ii) significant volume	VU		native	1985	2014-19		C(2.4%); F(97.6%)
			LIV	75	272	10	0	0								
Scleractinia																
Acroporidae	*Acropora hyacinthus* (II)	GB	LIV	0	0	45000	0	0	1 met: ii) significant volume	NT		non-native	1985			F(100%)
	Acropora millepora (II)	ID	COR	0	26	0	68	0	1 met: ii) significant volume	NT		native	1985			C(2.2%); F(97.8%)
			LIV	14385	14852	15195	14936	6408								
	Acropora tenuis (II)	ID	COR	0	3	0	60	0	1 met: ii) significant volume	NT		native	1985			C(1.6%); F(98.4%)
			LIV	4055	6157	8396	10398	5379								
Caryophylliidae	*Euphyllia ancora* (II)	ID	COR	1184	1166	2203	1125	294	1 met: ii) significant volume	VU		native	1985			C(0.7%); F(99.3%)
			LIV	35502	50561	55389	47009	14983								
	Euphyllia glabrescens (II)	ID	COR	2936	1691	3178	1064	419	1 met: ii) significant volume	NT		native	1985			C(0.8%); F(99.2%)
			LIV	62950	75016	80691	68624	25737								
	Euphyllia paraancora (II)	ID	COR	217	304	821	280	95	1 met: ii) significant volume	VU		native	1985			C(0.6%); F(99.4%)
			LIV	5655	13150	23271	22042	8497								
	Euphyllia paradivisa (II)	ID	COR	150	258	625	119	25	1 met: ii) significant volume	VU		native	1985			C(0.2%); F(99.8%)
			LIV	2646	5851	10935	11014	2938								
	Euphyllia yaeyamaensis (II)	ID	COR	282	528	1260	326	77	1 met: ii) significant volume	NT		native	1985			C(0.4%); F(99.6%)
			LIV	8513	16873	19270	15294	6318								
Pectiniidae	*Mycedium elephantotus* (II)	ID	COR	25	45	260	35	62	1 met: iii) source shift (W-CDFR 2016)	LC		native	1990			F(100%)
			LIV	216	2143	2924	5153	669								
Trachyphylliidae	*Trachyphyllia geoffroyi* (II)	ID	COR	0	0	23	0	0	1 met: iii) source shift (W-CDFR 2018)	NT		native	1990			C(1.7%); F(98.3%)
			LIV	124	10	197	1510	1022								
Stolonifera																
Tubiporidae	*Tubipora musica* (II)	ID	COR	50	65	25	24	27	1 met: ii) significant volume	NT		native	1985			F(100%)
			LIV	875	1852	1282	1986	1376								

Criteria iv) and v)

Given the commonalities across the datasets considered for these two criteria (e.g. both considering Appendix I species), the output for criteria iv) and v) are combined.

Table 4 provides an overview of those species that met criteria iv) and v); these criteria relate to:

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: 'A' for animal species or '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;

In total, **17 species and 66 species/country combinations** met criteria iv) and v) and are included in Table 4.

Key

Exporter: see Appendix 2 for ISO codes and country and territory names
Term: see Appendix 3 for term codes and descriptions
Exp. Quantity & Imp. Quantity: represents the exporter and importer reported quantities summed across the captive source codes (C, D, F and R) for the most recent five years of trade (2014-2018).
Criterion iv reporting inconsistency: inconsistencies in reported source between exporter-reported (E) and importer-reported (I), with the two source code pairings in parentheses after each: wild (W) and captive-sourced (CDFR); and captive-sourced (CDF) and ranched (R) (see Table 2 for further details).
IUCN Red List: NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered, EW = Extinct in the Wild, DD = Data Deficient.
Exporter distribution tag: native = exporter falls within taxon's natural range; non-native = exporter considered to be outside of the species natural range; introduced = taxon has established wild populations in a non-native range State due to accidental or deliberate release. † = neighbouring a range State
% trade by Source: C = captive-bred, D = Appendix I captive-bred in a registered breeding facility, F = captive-born, R = ranched.

Table 4: Appendix I species/country combinations that met criteria iv) and v) based on direct trade in captive-produced (C, D, F, and R) specimens, 2014-2018. Quantities rounded to the nearest whole number, when applicable. Data extracted from the CITES Trade Database 11th May 2020. See Key on p. 21.

Family	Species	Exporter	Term	Exp. Quantity	Imp. Quantity	Criterion iv Reporting inconsistency	Criterion v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
Mammals										
Artiodactyla										
Bovidae	*Oryx dammah*	ZA	BOD	1	3	E(CDFR)-I(W)		EW	non-native	C(1%); F(99%)
			HOR	0	18					
			LIV	3	3					
			SKP	0	4					
			SKI	5	14					
			SKU	12	9					
			TRO	268	190					
Carnivora										
Felidae	*Panthera tigris*	ME	LIV	5	0		✓	EN	non-native	C(40%); D(60%)
Birds										
Falconiformes										
Falconidae	*Falco jugger*	IT	LIV	1	0		✓	NT	non-native	D(100%)
	Falco peregrinus	AE	EGG	105	105		✓	LC	native	C(92.8%); D(5.1%); F(2%)
			LIV	1027	548					
		AM	LIV	8	0		✓		native	C(50%); D(50%)
		BG	LIV	10	3		✓		native	C(90%); D(10%)
		SI	LIV	76	44		✓		native	C(98.7%); D(1.3%)
	Falco rusticolus	AE	EGG	122	122		✓	LC	non-native	C(69.3%); D(28.2%); F(2.5%)
			LIV	2330	1929					
		AT	LIV	429	380		✓		native	C(98.6%); D(1.4%)
		CH	LIV	20	12		✓		native	C(95%); D(5%)
		ES	LIV	1014	724		✓		non-native	C(99.7%); D(0.3%)
		KW	LIV	92	25		✓		non-native	C(62%); D(34.8%); F(3.3%)
		MA	LIV	337	82		✓		non-native	C(98.8%); D(1.2%)
		QA	LIV	54	23		✓		non-native	C(68.5%); D(31.5%)
		SA	LIV	64	11		✓		non-native	C(95.3%); D(4.7%)
		SI	LIV	31	12		✓		non-native	C(93.5%); D(6.5%)

Family	Species	Exporter	Term	Exp. Quantity	Imp. Quantity	Criterion iv Reporting inconsistency	Criterion v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
Gruiformes										
Otididae	*Chlamydotis macqueenii*	AE	BOD	12	13	E(CDF)-I(R); E(CDFR)-I(W)		VU	native	C(79.2%); F(20.8%)
			EGG	0	1					
			LIV	25816	30264					
			TRO	1	0					
Psittaciformes										
Psittacidae	*Anodorhynchus hyacinthinus*	US	LIV	24	20		✓	VU	non-native	C(29.2%); D(50%); F(20.8%)
	Ara macao	ZA	LIV	253	128		✓	LC	non-native	C(99.6%); D(0.4%)
	Psittacus erithacus	KW	LIV	4212	1250		✓	EN	non-native	C(98.4%); F(1.6%)
		TR	LIV	1032	404		✓		non-native	C(22.4%); D(77.5%); F(0.1%)
Reptiles										
Crocodylia										
Alligatoridae	*Alligator sinensis*	JP	LIV	6	1		✓	CR	non-native	C(50%); D(50%)
	Caiman latirostris	AR	SKI	9125	27032	E(R)-I(CDF); E(CDFR)-I(W)		LC	native	R(100%)
			SKP	8529	4776					
Crocodylidae	*Crocodylus acutus*	DE	SKI	348	395		✓	VU	non-native	D(100%)
		ES	SKI	18	3		✓		non-native	D(100%)
		FR	SKI	216	216		✓		non-native	D(100%)
		HK	SKI	1	1		✓		non-native	D(100%)
		IT	SKI	472	412		✓		non-native	D(100%)
		JP	SKI	197	126		✓		non-native	D(100%)
		SG	SKI	626	320		✓		non-native	D(100%)
	Crocodylus niloticus	CN	SKI	801	737	E(R)-I(CDF)		LC	non-native	C(12.1%); R(87.9%)
			SKP	0	16					
		DE	LIV	6	6	E(CDFR)-I(W)			non-native	C(72.9%); R(27.1%)
			SKI	2347	2461					
			SKP	473	0					
			SKU	1	1					

Family	Species	Exporter	Term	Exp. Quantity	Imp. Quantity	Criterion iv Reporting inconsistency	Criterion v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
	Crocodylus niloticus (*cont.*)	FR	BOD	2	0	E(CDFR)-I(W)	✓		non-native	C(52.5%); D(0.2%); R(47.2%)
			BON	3	0					
			CAR	21	3					
			EGG	60	140					
			EGL	234	74					
			LIV	40	39					
			SHE	0	8					
			SKE	6	0					
			SKI	31027	25814					
			SKP	11539	1166					
			SKU	24	22					
		MW	SKI	26046	23248	E(R)-I(CDF)			native	R(100%)
		MZ	LIV	6000	57000	E(W)-I(CDFR)			native	C(0.6%); R(99.4%)
			SKI	171226	169574					
			SKP	41764	24065					
			SKU	64	0					
			TRO	0	1					
	Crocodylus porosus	AE	LIV	1	0		✓	LC	non-native	C(33.3%); D(33.3%); R(33.3%)
			SKI	2	1					
		AU	BOD	5	24	E(CDFR)-I(W)	✓		native	C(16%); R(84%)
			BON	2604	0					
			CLO	0	1					
			EGG	1	0					
			LIV	2	2					
			MEA	1910	2382					
			SKI	97631	181463					
			SKP	32943	42427					
			SKU	22	29					
			TEE	16589	887					
			TRO	0	7					
		CN	BOD	0	5		✓		non-native	C(6.2%); D(56.2%); R(37.5%)
			CAR	0	3					
			SKI	16	20					
		DE	SKI	39	38		✓		non-native	C(87.2%); D(10.3%); R(2.6%)
		ES	SKI	4715	3600		✓		non-native	C(18.6%); D(56.6%); R(24.8%)
			SKP	362	210					

Family	Species	Exporter	Term	Exp. Quantity	Imp. Quantity	Criterion iv Reporting inconsistency	Criterion v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
	Crocodylus porosus (*cont.*)	FR	CAR	105	19	E(CDF)-I(R)	✓		non-native	C(37.8%); D(15.7%); R(46.5%)
			CLO	0	8					
			SKE	0	3					
			SKI	22564	19420					
			SKP	5051	659					
		HK	SKI	93	290		✓		native	C(31.9%); D(53.3%); R(14.8%)
			SKP	42	16					
		IT	SKI	1382	814		✓		non-native	C(47%); D(7.9%); R(45.1%)
			SKP	169	76					
		JP	CAR	0	1		✓		non-native	C(96.2%); D(2.6%); R(1.2%)
			SKI	12902	12413					
			SKP	1	1272					
		MY	BOD	28	10		✓		native	C(43.2%); D(56.5%); F(0.3%)
			LIV	14632	5700					
			MEA	0	3500					
			SKI	21038	21100					
			SKP	120	514					
			SKU	11	6					
		TR	SKI	183	183		✓		non-native	C(71%); D(29%)
		US	CAR	0	7	E(W)-I(CDFR)			non-native	C(22.7%); R(77.3%)
			SKI	12	1293					
			SKP	10	5					
	Crocodylus siamensis	CH	SKI	327	115		✓	CR	non-native	D(100%)
			SKU	10	0					
		CN	BOD	0	6		✓		non-native	D(100%)
			SKI	1	29					
		ES	SKI	280	749		✓		non-native	D(100%)
		FR	LIV	8	2		✓		non-native	C(0.2%); D(99.7%); R(0.1%)
			SKI	3548	3363					
			SKP	51	0					
		HK	SKI	812	1362		✓		non-native	D(100%)
			SKP	14	0					
		IT	SKI	1285	966		✓		non-native	D(100%)
			SKP	2	0					
		JP	LIV	3	0		✓		non-native	D(100%)
			SKI	7313	5813					
		KR	SKI	12043	7291		✓		non-native	D(100%)
		MY	SKI	2653	2953		✓		native	D(100%)

Family	Species	Exporter	Term	Exp. Quantity	Imp. Quantity	Criterion iv Reporting inconsistency	Criterion v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
	Crocodylus siamensis (*cont.*)	SG	BOD	16	7		✓		non-native	D(100%)
			SKI	25077	21804					
			SKP	10413	120					
		TR	SKI	532	146		✓		non-native	D(100%)
			SKP	15	15					
			SKU	0	25					
			TRO	25	0					
Testudines										
Testudinidae	*Astrochelys radiata*	ES	LIV	33	42		✓	CR	non-native	C(3%); D(97%)
Fish										
Osteoglossiformes										
Osteoglossidae	*Scleropages formosus*	CA	LIV	1	0		✓	EN	non-native	D(100%)
		HK	LIV	3	23		✓		non-native	D(100%)
		JP	LIV	4	0		✓		non-native	D(100%)
		MY	LIV	783221	615491	E(CDF)-I(R)			native	D(100%)
		NO	LIV	4	0		✓		non-native	D(100%)
		SG	LIV	87844	66047	E(CDFR)-I(W)			Introduced	D(100%)
		VN	LIV	15	12		✓		native	D(100%)

Criterion vi) only

Criterion vi) focuses on using the trade data to check whether there is any evidence of **legal acquisition** of the founder breeding stock for species that are traded as captive-produced by non-range States.

In total, **34 species and 52 species/country combinations** met criterion vi) only and are included in Table 5. An additional 11 species and 13 species/country combinations met this criterion in conjunction with criteria i), ii), or iii) and are included in Table 3.

It is important to note that legal acquisition can only be partially addressed by using the CITES trade data, and there are many reasons why there may be no evidence of the import of the founder breeding stock within the CITES Trade Database. A few examples of possible reasons for no evidence of legal acquisition within the CITES Trade Database include:

- Founder stocks could have been acquired prior to CITES coming into force, prior to the species being listed in the Appendices to the Convention, or prior to the accession of the relevant Parties;
- Missing annual reports may account for the lack of evidence of legal acquisition;
- Where possible, nomenclature changes have been accounted for, however some species may be selected if they were previously traded under a different taxonomic name.

In relation to concerns over legal acquisition, the Animals Committee may wish to consider whether any of these species/country combinations would merit referral to the Standing Committee.

Key

Exporter: see Appendix 2 for ISO codes and country and territory names
Term: see Appendix 3 for term codes and descriptions
Criteria vi: * = no evidence of exports from any range State(s)
IUCN Red List: NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered, EW = Extinct in the Wild, DD = Data Deficient.
% trade by Source: C = captive-bred, D = Appendix I captive-bred in a registered breeding facility, F = captive-born, R = ranched.

Table 5: Species/country combinations that met criteria vi) (legal acquisition) only, based on direct trade in captive-produced (C, D, F, and R) specimens from non-native exporting range States. Quantities are in gross exports and rounded to the nearest whole number, when applicable. Data extracted from the CITES Trade Database 11th May 2020. No species/country combinations in this table were subject to quotas or to current Standing Committee recommendations to suspend trade. See Key on p. 27.

Family	Taxon	Exporter	Term	Sum of Trade (2014-2018)	Criterion vi) legal acquisition	IUCN Red List	Endemic	Neighbour range State	Year CITES listed	% trade by source
Mammals										
Primates										
Cebidae	*Callithrix jacchus* (II)	ZA	BOD	4	no import	LC	✓		1977	C(100%)
			BON	1						
			LIV	3602						
			SKE	1						
			SKI	0						
			SKU	17						
			TRO	12						
	Callithrix penicillata (II)	ZA	BOD	0	no import	LC	✓		1977	C(100%)
			LIV	1694						
			SKI	0						
			SKU	2						
			TRO	3						
Birds										
Passeriformes										
Estrildidae	*Lonchura oryzivora* (II)	PK	LIV	2300	no import	EN	✓	✓	1997	C(100%)
		ZA	LIV	5670	no import					C(100%)
Psittaciformes										
Psittacidae	*Agapornis fischeri* (II)	CU	LIV	61850	no import	NT			1976	C(100%)
		LB	LIV	15650	no import					C(100%)
		SY	LIV	3000	no import					C(100%)
		UZ	LIV	17179	no import					C(98.6%); F(1.4%)
	Agapornis personatus (II)	UZ	LIV	11580	no import *	LC	✓		1976	C(99.1%); F(0.9%)
	Aratinga erythrogenys (II)	ZA	LIV	1240	no import *	NT			1976	C(100%)
	Aratinga jandaya (II)	ZA	BOD	0	no import	LC	✓		1976	C(100%)
			LIV	18532						
	Aratinga solstitialis (II)	PH	LIV	4499	first import after first export	EN			1976	C(100%)
	Cyanoramphus auriceps (II)	BE	LIV	4984	no import *	NT	✓		1976	C(100%)
		CZ	LIV	12799	no import *					C(100%)
	Cyanoramphus malherbi (II)	UZ	LIV	4476	no import *	CR	✓		1975	C(98.5%); F(1.5%)
	Cyanoramphus novaezelandiae (I)	CZ	LIV	3990	no import *	LC			1975	C(100%)
		NL	LIV	1741	no import *					C(100%)

Family	Taxon	Exporter	Term	Sum of Trade (2014-2018)	Criterion vi) legal acquisition	IUCN Red List	Endemic	Neighbour range State	Year CITES listed	% trade by source
	Forpus coelestis (II)	CU	LIV	1150	no import *	LC			1976	C(100%)
	Neophema pulchella (II)	ZA	BOD	1	no import *	LC	✓		1976	C(100%)
			LIV	2099						
			TRO	1						
	Neopsephotus bourkii (II)	CU	LIV	5966	no import *	LC	✓		1976	C(100%)
		CZ	LIV	1443	no import *					C(98.3%); D(1.7%)
	Platycercus elegans (II)	BE	LIV	3619	no import	LC	✓		1976	C(100%)
		CZ	LIV	10895	no import					C(100%)
		NL	LIV	2717	no import					C(100%)
		PT	LIV	48157	no import					C(100%)
	Platycercus eximius (II)	CU	LIV	4757	no import	LC	✓		1981	C(100%)
		UZ	BON	10	no import					C(98.9%); F(1.1%)
			LIV	5643						
		ZA	BOD	3	no import					C(100%)
			LIV	6197						
			TRO	5						
	Psephotus haematonotus (II)	CU	LIV	12911	no import *	LC	✓		1976	C(100%)
		UZ	BON	20	no import *					C(100%)
			LIV	2894						
		ZA	BOD	0	no import *					C(100%)
			LIV	15684						
			TRO	1						
	Psittacus erithacus (I)	AZ	LIV	2800	first import after first export	EN			1976	C(78.2%); D(21.8%)
	Pyrrhura molinae (II)	SG	LIV	2530	no import *	LC			1976	C(100%)
Reptiles										
Sauria										
Agamidae	*Uromastyx acanthinura* (II)	ML	LIV	4434	no import	NE		✓	1977	C(13.8%); F(74.2%); R(12%)
	Uromastyx ornata (II)	SD	LIV	1300	no import	LC		✓	1977	C(100%)
Chamaeleonidae	*Chamaeleo calyptratus* (II)	TH	LIV	31480	no import	LC			1977	C(100%)
		UA	LIV	16912	no import					C(100%)
Testudines										
Testudinidae	*Chelonoidis carbonarius* (II)	SV	LIV	32862	first import after first export	NE			1975	C(100%)
	Testudo graeca (II)	MK	LIV	1546	no import	VU		✓	1975	C(100%)

Family	Taxon	Exporter	Term	Sum of Trade (2014-2018)	Criterion vi) legal acquisition	IUCN Red List	Endemic	Neighbour range State	Year CITES listed	% trade by source
Fish										
Acipenseriformes										
Acipenseridae	*Acipenser baerii* (II)	DE	CAV	167.7	no import	EN			1998	C(100%)
			EGL	0						
			LIV	36419						
			SKI	18						
		HU	CAV	553	no import					C(100%)
			EGL	327000						
			LIV	28000						
		IT	CAV	199	no import					C(100%)
			EGL	115000						
			LIV	0						
			SKP	2						
	Acipenser sinensis (II)	KR	CAV	5000	no import *	CR	✓		1998	C(100%)
	Huso huso (II)	CN	LIV	11410	no import	CR		✓	1998	C(56.2%); F(43.8%)
Syngnathiformes										
Syngnathidae	*Hippocampus comes* (II)	LK	LIV	4890	no import	VU			2004	C(100%)
	Hippocampus reidi (II)	LK	BOD	0	first import after first export	NT			2004	C(99.8%); F(0.2%)
			LIV	52164						
Invertebrates										
Arhynchobdellida										
Hirudinidae	*Hirudo verbana* (II)	CA	LIV	45000	no import	NE			1987	C(100%)
		GB	LIV	17413	first import after first export					F(100%)
Veneroida										
Tridacnidae	*Tridacna crocea* (II)	NA	LIV	3306	first import after first export	LC			1985	C(1.5%); F(98.5%)
Corals										
Scleractinia										
Acroporidae	*Acropora microclados* (II)	MH	LIV	3908	no import	VU			1985	C(98.8%); F(1.2%)
	Acropora natalensis (II)	ID	COR	3	no import *	DD			1985	C(0.4%); F(99.6%)
			LIV	2367						
	Montipora peltiformis (II)	MH	LIV	1273	no import	NT			1990	C(95.3%); F(4.7%)

3 Full trade data output

To support decision making by the Animals Committee, an output of all reported direct trade in captive-bred and ranched animal specimens (sources C, D, F and R) was also produced from trade data extracted from the CITES Trade Database on 11th May 2020 (and will be available as an information document). This **full trade data output** is provided in Excel format, with filterable columns, to enable data exploration. Details of the data included in this full output are provided in Table 6.

Table 6: Data included for the full trade data output of 'captive-produced' trade.

Category	Data included
CITES Trade Database report type	Gross exports; Direct trade only (re-exports are excluded)
Appendix	Appendix I and II only
Source codes[12]	Captive-bred ('C'), Appendix I captive-bred in a registered breeding facility ('D'), captive-born ('F') and ranched ('R')
Purpose codes[12]	All
Terms included	*Selected terms*[13]*:* baleen, bodies, bones, carapaces, carvings, caviar, cloth, eggs, egg (live), fins, gall and gall bladders, horns and horn pieces, ivory pieces, ivory carvings, live, meat, musk, plates, raw corals, scales, shells, skin pieces, skins, skeletons, skulls, teeth, trophies, and tusks.
Units of measure	Number (unit = blank) *[Trade in other units of measure (e.g. kilograms, metres, etc.) were excluded]*
Year range	2014-2018[14]
Contextual information	• Percentage of captive-produced trade by source code (C, D, F, R); • Global **conservation status** of the species as published in the IUCN Red List of Threatened Species[15]; • An indication of whether the country of export is a **range State** or a **neighbouring State** to a range State; • An indication of whether the species is **endemic** to a single country, according to Species+[16]; • An indication of where there is **no evidence of any exports from any range State** (only applicable to exports from non-range States)[17]; • The **year of first listing** in the CITES Appendices; • Species/country combinations subject to **quotas** between 2014 and 2020; and • Species/country combinations that are subject to current Standing Committee **recommendations to suspend trade.**

[12] A full list and description of source and purpose codes is specified in Res. Conf. 12.3 (Rev. CoP18).
[13] A full list of "terms" (i.e. descriptions of specimens in trade) traded is available in the CITES Trade Database interpretation guide, see: https://trade.cites.org/cites_trade_guidelines/en-CITES_Trade_Database_Guide.pdf
[14] Trade data for 2018 may appear lower than other years due to missing annual reports; 60% of Parties had submitted an annual report for 2018 that could be included for this analysis (as of 11th May 2020).
[15] www.iucnredlist.org Data downloaded on 23rd March 2020.
[16] Species+ is a database maintained by UNEP-WCMC and accessible from speciesplus.net.
[17] Based only on the CITES trade data.

Appendix 1: Considerations for improvements to Resolution Conf. 17.7 (Rev. CoP18)

This section aims to assist the Animals Committee with implementation of Decision 18.76, which directs the Committee to review the provisions of Resolution 17.7 (Rev. CoP18) and make recommendations for improvements to the Standing Committee. Here we highlight lessons learned in relation to the methodology and some potential future revisions to the methods for selecting cases under Resolution Conf. 17.7 (Rev. CoP18).

Background

At AC29, as a result of the first iteration of the process, **23 species/country combinations** were selected to progress to Stage 2 of the review of trade in animal specimens reported as produced in captivity. Of these, 14 cases were selected directly from the analysis of data outlined in AC29 Doc. 14.1 Annex, and a further nine cases were included in the process based on either referral from the Review of Significant Trade Working Group at AC29, previously identified cases of concern that had been referred to the Secretariat, or they were based on suggestions from the Parties/observers present at the meeting (Table 7). See also AC29 Com. 11 for further details.

Table 7: **Basis of selection for 23 cases selected under Resolution Conf. 17.7, and the number selected within each criterion of Stage 1 paragraph a).**

Species/countries included and IUCN Red List*	Criteria met						Basis of selection
	i)	ii)	iii)	Iv	v)	vi)	
Vulpes zerda (Sudan) LC			✓				AC29 Doc. 14.1 Annex
Cacatua alba (Indonesia) EN	✓						
Varanus exanthematicus (Ghana) LC			✓				
Varanus exanthematicus (Togo) LC		✓					
Varanus timorensis (Indonesia) LC		✓					
Ptyas mucosus (Indonesia) NE			✓				
Testudo hermanni (FYROM) NT		✓					
Oophaga pumilio (Nicaragua) LC	✓						
Oophaga pumilio (Panama) LC		✓					
Agalychnis callidryas (Nicaragua) LC		✓					
Hippocampus comes (Viet Nam) VU			✓				
Tridacna crocea (Federated States of Micronesia) LC	✓					✓	
Lorius lory (South Africa) LC						✓	
Ornithoptera croesus (Indonesia) NT		✓	✓				AC29 Doc. 14.1 Annex and Referral from RST WG
Sub-total	**3**	**6**	**5**	**0**	**0**	**2**	[14 cases]
Centrochelys sulcata (Benin, Ghana, Guinea, Mali, Sudan, Togo) VU	9 additional species/country combinations added that did not meet the selection criteria.						Referral from RST WG
Geochelone elegans (Jordan) VU *Macaca fascicularis* (Cambodia) LC							Cases compiled by the Secretariat based on concerns about captive production
Trachyphyllia geoffroyi (Indonesia) NT							AC29 Party/ Observer suggestions

*Key: **IUCN Red List:** LC = Least Concern, EN = Endangered, NE = Not Evaluated, NT = Near Threatened, VU = Vulnerable.

Of the 23 cases that were selected, more than half were reptiles (12), with three amphibians and invertebrates selected each, as well as two mammal taxa, two birds and one fish. Whilst nine cases were for species that are globally threatened (1 EN and 8 VU), 14 cases were selected for species that are not globally threatened (3 NT, 10 LC and 1 not evaluated).

Lessons learned

1) Some criteria may be more relevant than others

It is notable that of the six criteria, the majority of species selected at AC29 related to criteria i), ii), and iii), which directly link to the biological feasibility of captive breeding; two criteria did not lead to the selection of any species. Specifically, no species were selected under criteria iv) (*reporting inconsistencies*) or v) (*incorrect application of source code*) at AC29. As these criteria relate to reporting discrepancies, they may be considered of lower priority to the Animals Committee.

In document AC30 Doc. 13.2, which outlined observations and recommendations on the first iteration of Resolution Conf. 17.7 (Rev. CoP18), the Secretariat recognised the lack of selected cases for criteria, iv) and v), and noted that "should a similar situation arise in future reviews, it may be worth reconsidering the inclusion of these selection criteria".

- **Recommendation**: On this basis, if no species are selected under these criteria following CoP18, the Animals Committee should consider deletion of criteria iv) and v) from paragraph a) of the Resolution.

2) Additional datasets may strengthen the selection process

Of the 23 species/country combinations selected by Parties at AC29, nine did not feature in the selection analysis and instead were proposed by Parties or the Secretariat. Several related to concerns in relation to captive production or questions over the feasibility of breeding these species in captivity. On this basis, it appears that there may be a gap within the criteria and an increased focus on breeding biology within the methods may be warranted.

Incorporation of breeding biology in the selection process

For Resolution Conf. 17.7 (Rev. CoP18), taxa of high risk include those that are particularly difficult to breed in captivity or difficult to breed to second generation, as well as those that are particularly slow growing or slow to reproduce (as these may be more likely to be laundered). It would therefore be beneficial to take into account the breeding biology of a species when assessing whether the volume of trade for a particular taxon is "significant" or not.

At AC30, the Animals Committee concluded that "the current criteria focus on species that are traded in significant numbers, or where there are significant increases in trade, but might overlook species that are difficult to breed in captivity for which trade occurs at relatively low levels. The breeding biology of species is a key consideration that ideally should be factored into the selection process to further identify species of concern" (AC30 Com 7. (Rev by Sec.); also outlined in SC70 Doc 31.4 Annex 1).

There is currently no definitive or comprehensive list of "hard to breed" taxa, and, as new breeding techniques and technologies develop, it may mean that the ease of captive breeding of a particular taxon can change, and such lists could become out of date over time. Nevertheless, there is scope

to explore further how aspects of breeding biology or prevalence in captivity could be incorporated within the selection criteria, or at least added as supporting contextual information in the outputs produced from the CITES Trade Database. Some examples of existing datasets that could be utilised include the Demographic Species Knowledge Index[18] for digitised life history traits and demographic data, and the Zoological Information Management Software (ZIMS) managed by Species 360, which holds data on the number of individuals held within over 1000 zoos globally. Information gaps could potentially be filled through specific workshops with taxonomic experts.

- **Recommendation**: The Animals Committee further consider how additional data on breeding biology could be compiled and factored into the selection process when implementing Decision 18.76.

3) Alignment of methods for CITES processes

At AC29, the Animals Committee recommended that efforts should be made to harmonise the methodology used to select species for Resolution 17.7 with that of the Review of Significant Trade (RST) especially relating to the multiplication factors used for the IUCN Red List categories" (AC29 Com. 11).

Parallels do exist between the selection criteria for the Review of Significant Trade and the Review of animals reported as produced in captivity, at least for some criteria (see Methods within Section 2 of this document for captive breeding process and Table 8 below for RST). In particular, both processes select cases where trade is considered to be "high volume" or where there has been a "sharp increase" in trade.

Table 8: **Criteria for the selection of taxa within the Review of Significant Trade Process (Extended Analysis)**

Criterion	Description
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)
ii)	**Sharp Increase (Global):** Taxa showing a sharp increase in global trade in 2015, in comparison to the average over the preceding five-year period
iii)	**Sharp Increase (Country):** Taxa showing a sharp increase in trade in 2015 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 other taxa in their order over the most recent five year period
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. Trade data are multiplied by 10 for species that are Critically Endangered (CR), Endangered (EN), Vulnerable (VU), Near Threatened (NT) or Data Deficient (DD) in the IUCN Red List.

At AC29, the Committee suggested that for the RST process, the weighting applied to individual species according to their threat status for the calculation of the "High Volume (globally threatened)" criterion should be refined; rather than using a general "x10" multiplier, it should be stratified by Red List status (AC29 Summary Record). To test the effect of different weightings within the RST process, two methods were compared (See Appendix 1 of AC31 Doc. 13.4 Annex 2).

[18] See Conde *et al*. (2019) Data gaps and opportunities for comparative and conservation biology. Proceedings of the National Academy of Sciences 116(19) 9658-9664.

The stratified multiplier method resulted in more taxa at the extremes being selected (i.e. CR or EN and LC). As CR and EN species are already selected in the RST under a separate criterion, it was decided, in consultation with the Secretariat, to retain the original method of weighting all globally threatened species (including NT and DD) equally. It should also be noted that some IUCN assessments are outdated and need re-assessment, and that the IUCN Red List guidelines indicate that IUCN Red List status should not be used for setting priorities[19]. As multiplication factors were not changed within the RST process, they were not altered for the "High volume" criterion of the Review of animal specimens reported as bred in captivity.

It should be recognised that of the cases selected in the captive-breeding process following CoP17, 14 of the 23 were species that are not globally threatened according to the Red List, which may imply that the Red List perhaps has less relevance for this process than for the trade in wild specimens as scrutinised by the RST.

[19] Section 2.4 of the IUCN Guidelines for Using the IUCN Red List Categories and Criteria (Version 14). Available at https://www.iucnredlist.org/resources/redlistguidelines

Appendix 2: ISO codes and country and territory names

Code	Name
AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AI	Anguilla
AL	Albania
AM	Armenia
AO	Angola
AQ	Antarctica
AR	Argentina
AS	American Samoa
AT	Austria
AU	Australia
AW	Aruba
AX	Åland Islands
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ	Benin
BL	Saint Barthelemy
BM	Bermuda
BN	Brunei Darussalam
BO	Bolivia, Plurinational State of
BQ	Bonaire, Saint Eustatius and Saba
BR	Brazil
BS	Bahamas
BT	Bhutan
BV	Bouvet Island
BW	Botswana
BY	Belarus
BZ	Belize
CA	Canada
CC	Cocos (Keeling) Islands
CD	Democratic Republic of the Congo
CF	Central African Republic
CG	Congo
CH	Switzerland
CI	Côte d'Ivoire
CK	Cook Islands
CL	Chile
CM	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CU	Cuba
CV	Cape Verde
CW	Curaçao
CX	Christmas Island
CY	Cyprus
CZ	Czech Republic
DE	Germany
DJ	Djibouti
DK	Denmark
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt
EH	Western Sahara
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji

Code	Name
FK	Falkland Islands (Malvinas)[20]
FM	Micronesia, Federated States of
FO	Faroe Islands
FR	France
GA	Gabon
GB	United Kingdom of Great Britain and Northern Ireland
GD	Grenada
GE	Georgia
GF	French Guiana
GG	Guernsey
GH	Ghana
GI	Gibraltar
GL	Greenland
GM	Gambia
GN	Guinea
GP	Guadeloupe
GQ	Equatorial Guinea
GR	Greece
GS	South Georgia and the South Sandwich Islands
GT	Guatemala
GU	Guam
GW	Guinea-Bissau
GY	Guyana
HK	Hong Kong
HM	Heard Island and McDonald Islands
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary
ID	Indonesia
IE	Ireland
IL	Israel
IM	Isle of Man
IN	India
IO	British Indian Ocean Territory
IQ	Iraq
IR	Iran, Islamic Republic of

Code	Name
IS	Iceland
IT	Italy
JE	Jersey
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia
KI	Kiribati
KM	Comoros
KN	Saint Kitts and Nevis
KP	Democratic People's Republic of Korea
KR	Republic of Korea
KW	Kuwait
KY	Cayman Islands
KZ	Kazakhstan
LA	Lao People's Democratic Republic
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV	Latvia
LY	Libyan Arab Jamahiriya
MA	Morocco
MC	Monaco
MD	Republic of Moldova
ME	Montenegro
MF	Saint Martin
MG	Madagascar
MH	Marshall Islands
MK	North Macedonia
ML	Mali
MM	Myanmar

[20] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas).

Code	Name
MN	Mongolia
MO	Macao
MP	Northern Mariana Islands
MQ	Martinique
MR	Mauritania
MS	Montserrat
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NC	New Caledonia
NE	Niger
NF	Norfolk Island
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NR	Nauru
NU	Niue
NZ	New Zealand
OM	Oman
PA	Panama
PE	Peru
PF	French Polynesia
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PM	Saint Pierre and Miquelon
PN	Pitcairn
PR	Puerto Rico
PT	Portugal
PW	Palau
PY	Paraguay
QA	Qatar

Code	Name
RE	Réunion
RO	Romania
RS	Serbia
RU	Russian Federation
RW	Rwanda
SA	Saudi Arabia
SB	Solomon Islands
SC	Seychelles
SD	Sudan
SE	Sweden
SG	Singapore
SH	Saint Helena, Ascension and Tristan da Cunha
SI	Slovenia
SJ	Svalbard and Jan Mayen
SK	Slovakia
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
SS	South Sudan
ST	Sao Tome and Principe
SV	El Salvador
SX	Sint Maarten
SY	Syrian Arab Republic
SZ	eSwatini
TC	Turks and Caicos Islands
TD	Chad
TF	French Southern Territories
TG	Togo
TH	Thailand
TJ	Tajikistan
TK	Tokelau
TL	Timor-Leste
TM	Turkmenistan
TN	Tunisia
TO	Tonga
TR	Turkey
TT	Trinidad and Tobago
TV	Tuvalu

Code	Name
TW	Taiwan, Province of China
TZ	United Republic of Tanzania
UA	Ukraine
UG	Uganda
UM	United States Minor Outlying Islands
US	United States of America
UY	Uruguay
UZ	Uzbekistan
VA	Holy See
VC	Saint Vincent and the Grenadines
VE	Venezuela, Bolivarian Republic of
VG	Virgin Islands, British
VI	Virgin Islands, United States
VN	Viet Nam
VU	Vanuatu
WF	Wallis and Futuna Islands
WS	Samoa
YE	Yemen
YT	Mayotte
ZA	South Africa

Appendix 3: Term codes and descriptions (see Notification to the Parties No. 2019/072)

Trade term code	Description	Explanation
BAL	Baleen	Whalebone
BOD	Bodies	Substantially whole dead animals, including fresh or processed fish, stuffed turtles, preserved butterflies, reptiles in alcohol, whole stuffed hunting trophies, etc.
BON	Bones	Bones, including jaws
CAP	Carapaces	Raw or unworked whole shells of Testudines species
CAR	Carving	Carved products other than ivory, bone or horn – for example coral and wood (including handicrafts). N.B: Ivory carvings should be specified as such (see below – "IVC"). Also, for species from which more than one type of product may be carved (e.g. horn and bone), the trade term code should indicate the type of product in trade (e.g. bone carving "BOC" or horn carving – "HOC"), where possible.
CAV	Caviar	Unfertilized dead processed eggs from all species of Acipenseriformes; also known as roe.
CLO	Cloth	Cloth – if the cloth is not made entirely from the hair of a CITES species, the weight of hair of the species concerned should instead, if possible, be recorded under 'HAI'
COR	Raw corals	Raw or unworked coral and coral rock (also live rock and substrate) [as defined in Resolution Conf. 11.10 (Rev. CoP15)]. Coral rock should be recorded as 'Scleractinia spp.' NB: the trade should be recorded by number of pieces only if the coral specimens are transported in water. Live rock (transported moist in boxes) should be reported in kg; coral substrate should be reported as number of pieces (since these are transported in water as the substrate to which non-CITES corals are attached).
EGG	Eggs	Whole dead or blown eggs (see also 'caviar')
EGL	Egg (live)	Live fertilized eggs – usually birds and reptiles but includes fish and invertebrates
FIN	Fins	Fresh, frozen or dried fins and parts of fins (including flippers)
GAB	Gall bladders	Gall bladders
GAL	Gall	Gall
HOP	Horn pieces	Pieces of horn, not manufactured – includes scrap
HOR	Horns	Horns – includes antlers
IVC	Ivory carvings	Ivory carvings, including e.g. smaller worked pieces of ivory (knife handles, chess sets, marjoram sets etc). N.B. Whole carved tusk should be reported as tusks ("TUS"). Jewellery made from carved ivory should be reported as 'jewellery – ivory' ("IJW").
IVP	Ivory pieces	Ivory pieces, not manufactured – includes scrap
LIV	Live	Live animals and plants
MEA	Meat	Meat, including flesh of fish if not whole (see 'body'), fresh or unprocessed meat as well as processed meat (e.g. smoked, raw, dried, frozen or tinned)
MUS	Musk	Musk
PLA	Plate	Plates of fur skins – includes rugs if made of several skins
SCA	Scale	Scales – e.g. of turtle, other reptiles, fish, pangolin
SHE	Shell	Raw or unworked shell of molluscs
SKE	Skeleton	Substantially whole skeletons
SKI	Skin	Substantially whole skins, raw or tanned, including crocodilian Tinga frames, external body lining, with or without scales
SKP	Skin piece	Skin pieces – including scraps, raw or tanned
SKU	Skull	Skulls
TEE	Tooth	Teeth – e.g. of whale, lion, hippopotamus, crocodile, etc.
TRO	Trophy	Trophy – all the trophy parts of one animal if they are exported together: e.g. horns (2), skull, cape, backskin, tail and feet (i.e. ten specimens) constitute one trophy. But if, for example, the skull and horns are the only specimens of an animal that are exported, then these items together should be recorded as one trophy. Otherwise the items should be recorded separately. A whole stuffed body is recorded under 'BOD'. A skin alone is recorded under 'SKI'. Trade in 'full mount', 'shoulder mount' and 'half mount', along with any corresponding parts of the same animal exported together on the same permit, should be reported as '1 TRO'
TUS	Tusk	Substantially whole tusks, whether or not worked. Includes tusks of elephant, hippopotamus, walrus, narwhal, but not other teeth