Original language: English AC29 Doc. 14.1

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



Twenty-ninth meeting of the Animals Committee Geneva (Switzerland), 18-22 July 2017

Interpretation and implementation matters

General compliance and enforcement

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. At its 17th meeting (CoP17, Johannesburg 2016), the Conference of the Parties adopted a new compliance procedure through Resolution Conf. 17.7 on *Review of trade in animal specimens reported as produced in captivity*. It concerns trade in specimens using the source codes C, D, F or R as defined in paragraph 3 i) of Resolution Conf. 12.3 (Rev. CoP17) 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 this Resolution.
- 3. In Decision 17.105, the Conference of the Parties further directed the Animals Committee to prepare at its 30th meeting, a report for the Standing Committee on its observations and recommendations regarding this first iteration of Resolution Conf. 17.7, including opportunities for harmonisation with the process in Resolution Conf. 12.8 (Rev. CoP17) on *Review of Significant Trade in specimens of Appendix-II species* and other opportunities to achieve the aims of the Resolution most effectively and cost efficiently.

Summary from the CITES Trade Database

4. Paragraph 2 a) of Resolution Conf. 17.7 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)
- 5. 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 of the present document, while the full summary of trade data upon which it is based can be found in information document AC29 Inf. 3. The Secretariat would like to warmly thank the European Union, Switzerland and the United States of America for providing the funds which made this work possible.

Consultation workshop

6. In view of the fact that this was the first time that such an exercise had been undertaken and of the scope for interpretation in sub-paragraphs 2 a) i) to vi) of Resolution Conf. 17.7, the Secretariat and UNEP-WCMC sought guidance from a representative selection of Parties and members of the Animals Committee. This was achieved during a consultation workshop on the regulation of trade in CITES specimens of captive bred and ranched source, held in Cambridge, United Kingdom, 29-30 March 2017. The workshop drew no formal conclusions, but the contents of the discussions held were taken fully into account by the Secretariat and UNEP-WCMC in producing the trade summary and analysis. The Secretariat would like to record its grateful thanks to the European Union for providing the financial support which enabled this workshop to take place.

Other relevant information with respect to concerns about captive production

- 7. Paragraph 2 b) of Resolution Conf. 17.7 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. CoP17) on Review of Significant Trade in specimens of Appendix-II species and information referred to it by Parties or available in relevant reports, including the global conservation status by species published in the Red List of Threatened Species by the International Union for Conservation of Nature (IUCN) or noted as not evaluated.
- 8. In this regard, the Secretariat draws the attention of the Committee to the following species-country combinations which came to its attention during the last five years:
 - Cases identified from the Review of Significant Trade under Resolution Conf. 12.8 (Rev. CoP17):

Species-country combination	Reference
Macaca fascicularis / Cambodia and Viet Nam	See document AC28 Com.8 (Rev. by Sec.)
Tridacna spp. / Solomon Islands	See documents AC27 WG1 Doc. 1 and SC65 Doc. 26.1
Macaca fascicularis / Lao People's Democratic	See documents AC27 WG1 Doc. 1 and
Republic (Lao PDR), Cambodia, Viet Nam	SC67 Doc. 12.1
Psittacus erithacus / Central African Republic	See document AC27 WG1 Doc. 1
Ptyas mucosus / Lao PDR	See documents AC27 WG1 Doc. 1 and
	SC67 Doc. 12.1
Python reticulatus / Lao PDR	See documents AC27 WG1 Doc. 1 and
	SC67 Doc. 12.1
Podocnemis unifilis / Peru	See document AC27 WG1 Doc. 1
Kinixys homeana / Benin, Togo	See document AC27 WG1 Doc. 1
Amyda cartilaginea / Indonesia	See document SC65 Doc. 26.1
Balearica pavonina / Nigeria	See document AC26 WG7 Doc. 1 (Rev. 1)
Hippocampus kuda / Viet Nam	See document AC26 WG7 Doc. 1 (Rev. 1)

Cases referred to it by Parties:

Species-country combination	Reference
Falco spp. / Serbia	See document SC66 Doc. 41.1
Panthera tigris / Kazakhstan	See document SC66 Doc. 41.1
Conolophus subcristatus and Amblyrhynchus	See document SC66 Doc. 41.1
cristatus / Switzerland	oce document <u>ocoo boc. 41.1</u>
Neurergus kaiseri / Germany	See document SC66 Doc. 41.1
Astrochelys radiata / Spain	See document SC66 Doc. 41.1
Psittacidae spp / Bahrain	See document SC65 Doc. 34.1
Primates spp. / Guinea	See document SC65 Doc. 34.1
Agalychnis callidryas / Central America	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Macaca spp. / Southeast and East Asia	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Dendrobatidae spp. / Central America	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Reptilia and Amphibia spp. / Kazakhstan and	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Lebanon	
Reptilia spp. / Slovenia	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Testudinidae spp. / Zambia	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Testudo horsfieldii / Ukraine	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Geochelone elegans / Jordan, Lebanon,	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Ukraine, and the United Arab Emirates	
Rhyticeros plicatus / Solomon Islands	See documents SC62 Doc. 26 and SC66 Doc. 41.1
Caiman crocodilus fuscus / Colombia	See documents SC62 Doc. 26, SC66 Doc. 41.1 and
	SC67 Doc. 16
Pythonidae spp. / Lao PDR and Viet Nam	See documents SC62 Doc. 26, SC66 Doc. 41.1 and
	SC67 Doc. 12.1
Crocodylus niloticus / Madagascar	See documents SC62 Doc. 25 and SC63 Doc. 13

 Cases in relevant reports, including the global conservation status by species published in the IUCN Red List of Threatened Species or noted as not evaluated:

The Secretariat has not had the resources to undertake a literature review of 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 developing the methodologies for the analysis, and the Red List categories are also provided as contextual information within the outputs (Tables 3, 4 and 5 of the analysis in the Annex to the present document and the full summary of trade data in information document AC29 Inf.3) in order to assist the Committee with prioritisation.

Selection process at the present meeting

- 9. In accordance with paragraph 2 c) of Resolution Conf. 17.7, the Animals Committee may select a limited number of species-country combinations for review, taking into account the biology of the species. The paragraph concerned is silent on the reasoning to be used in the selection process. However, paragraph 2 e) 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" and paragraph 2 g) 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". Paragraph 2 e) 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 specify the Article of the Convention text and paragraph of any associated Resolution that it believes may not be being complied with.
- 10. For each species-country combinations 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 Parties concerned. In drafting these questions, the Committee may wish to consider using the CITES <u>Guidance for inspection of captive breeding and ranching facilities</u> (information document AC29 Inf. 1) and in particular the data collection forms and production capacity calculator contained in that publication. In terms of the determination of the correct source code, the Committee may wish to take account of the publication <u>A Guide to the application of CITES source codes</u> (information document AC29 Inf. 2).

- 11. Paragraph 2 f) 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 at the time and, for that reason, the Secretariat requests the Committee to list such requests in order of priority.
- 12. Any urgent enforcement matters identified during the course of the review at the present meeting should be referred to the Secretariat and the country concerned and subsequently reported to the Standing Committee.

Next steps following the present meeting

- 13. Following the activities to be undertaken at the present meeting and described in paragraphs 9 to 12 of the present document, the Secretariat is instructed, within 30 days (i.e. by 21 August 2017), 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.
- 14. At its 30th meeting, the Committee will review the responses to the questions received from countries, any reviews commissioned by the Secretariat as described in paragraph 11 of the present document and any additional relevant information, and determine if 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.

Review of the implementation of Resolution Conf. 17.7

15. As noted in paragraph 3 of the present document, the Conference of the Parties directed the Animals Committee to prepare a report of its observations and recommendations regarding the first iteration of Resolution Conf. 17.7, including opportunities for harmonisation with the process in Resolution Conf. 12.8 (Rev. CoP17) and other opportunities to achieve the aims of the Resolution most effectively and cost efficiently, for transmission to the Standing Committee. Although this report is to be prepared at the 30th meeting of the Animals Committee, the Secretariat recommends that the Committee take notes of observations made which could contribute to such a report, as part of the work it undertakes intersessionally.

Recommendations

- 16. Taking into account the information referred to in paragraphs 7 and 8 of the present document, the Animals Committee is invited to:
 - a) select a limited number of species-country combinations for review in accordance with paragraph 9 of the present document;
 - b) prepare a brief explanation of the reason for each selection;
 - c) draft general or specific questions for the countries selected for review;
 - d) determine 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 10 of the present document; and
 - e) identify any urgent enforcement matters which need the attention of the Secretariat, the country concerned and the Standing Committee.

Selection of species for inclusion in the Review of trade in animal specimens reported as produced in captivity following CoP₁₇

CITES Project No. A-498



Selection of species for inclusion in the Review of trade in animal specimens reported as produced in captivity following CoP₁₇

Prepared for

CITES Secretariat

Published

May 2017

Citation

UNEP-WCMC. 2017. Selection of species for inclusion in the Review of trade in animal specimens reported as produced in captivity following CoP17. UNEP-WCMC, Cambridge.

Copyright

CITES Secretariat, 2017

The UN Environment World Conservation Monitoring Centre (UNEP-WCMC) is the specialist biodiversity assessment centre of UN Environment, the world's foremost intergovernmental environmental organisation. The Centre has been in operation for over 30 years, combining scientific research with practical policy advice.

This publication may be reproduced for educational or non-profit purposes without special permission, provided acknowledgement to the source is made. Reuse of any figures is subject to permission from the original rights holders. No use of this publication may be made for resale or any other commercial purpose without permission in writing from UN Environment. Applications for permission, with a statement of purpose and extent of reproduction, should be sent to the Director, UNEP-WCMC, 219 Huntingdon Road, Cambridge, CB3 oDL, UK.

The contents of this report do not necessarily reflect the views or policies of UN Environment, contributory organisations or editors. The designations employed and the presentations of material in this report do not imply the expression of any opinion whatsoever on the part of UN Environment or contributory organisations, editors or publishers concerning the legal status of any country, territory, city area or its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries. The mention of a commercial entity or product in this publication does not imply endorsement by UN Environment.



UNEP World Conservation Monitoring Centre (UNEP-WCMC) 219 Huntingdon Road, Cambridge CB₃ oDL, UK Tel: +44 1223 277314

www.unep-wcmc.org

UN Environment promotes environmentally sound practices globally and in its own activities. Printing on paper from environmentally sustainable forests and

Contents

1. Over	view	1
2. Analy	ysis	2
	uction and scope	
2.2 Metho	odology	4
2.3 Specie	es selection results	9
2.3.1.	Criteria i), ii) and iii)	10
2.3.2.	Criteria iv) and v)	24
2.3.3.	Criterion vi) only	27
3. Trade	summary	31

1. Overview

To support the implementation of paragraph 2 a) i) to iv) of Resolution Conf. 17.7, the UN Environment World Conservation Monitoring Centre (UNEP-WCMC) has produced two outputs of trade in animal specimens reported as produced in captivity (an analysis and a summary output). 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 CoP17.

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

- i) significant increases in trade in specimens declared as captive-produced (source codes C, D, F and R) ("significant increase");
- ii) trade in significant numbers of specimens declared as produced in captivity ("significant numbers");
- iii) shifts and fluctuations between different captive-production source codes ("shifts in source codes");
- iv) inconsistencies between source codes reported by exporting and importing Parties for specimens declared as produced in captivity ("**reporting inconsistencies**");
- 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 ("incorrect application of source codes"); 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) ("legal acquisition").

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

- 1. An <u>analysis</u> applying the six selection criteria above to the trade in captive-bred and ranched specimens for 2011-2015 (sources C, D, F and R) (see Section 2 for data used, methods and detailed results); and
- 2. A <u>summary</u> output from the CITES Trade Database of annual report statistics of relevant trade in captive-bred and ranched specimens for 2011-2015, sources C, D, F and R (see Section 3 for details and AC29 Inf. 3 for the summary output in Excel). This output provides an opportunity for Parties to scrutinise 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 **160 species** and **227 species/country combinations** met at least one of the six criteria in paragraph **2** a) of Resolution Conf. 17.7 based on the methodologies presented. Results of the analysis can be found in Tables 3-5.

2. Analysis

2.1 Introduction and scope

Based on the criteria specified in paragraph 2 a) of Resolution Conf. 17.7, the methodology for the analysis was developed by UNEP-WCMC with advice from the Secretariat and taking into consideration the guidance provided by regional representatives of the Animals Committee and other relevant Parties at a consultation workshop co-hosted by the CITES Secretariat and UNEP-WCMC in Cambridge, United Kingdom (March 2017), hereafter referred to as the 'workshop'. Discussions at the workshop focussed on how best to translate the criteria in the Resolution into a series of filters applied to the trade data in order to select a reasonable number of species/country combinations that may be in most need of scrutiny by the Animals Committee (see Methods section below). The scope of the criteria, in terms of the data included (e.g. Appendices, years of trade data, sources, purposes, reporter type, etc.), was also considered by the workshop.

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 20th April 2017.

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

	Criteria i), ii) and iii)	Criteria iv) and v)	Criterion vi)			
CITES Trade	Direct trade only (re-	Direct trade only (re-exports	Direct and indirect trade			
Database report	exports are excluded)	are excluded)	into the focal country,			
type			but species/country			
	Report type is dependent	Report type is dependent on	combinations were			
	on the criterion:	the criterion:	selected on the basis of			
	Criteria i) & ii): Gross	Criterion iv): Exporter- ar	nd direct trade from the			
	exports ¹	importer-reported data;	focal country.			
	Criterion iii): Exporter-	 Criterion v): Exporter- 	Gross exports were			
	reported data only	reported data only	analysed for Criterion vi)			
Appendix	Appendix I & II	Appendix I only ²	Appendix I & II			
Year range	2	011-2015 provided in the outp	ut			
	[Data from 200	8-2015 used in the analysis/se	election process]			
Source codes ³		Criteria i) - iv) & vi): C, D, F, F	₹			
		Criteria v): D only				
	[For Criteria iii) and vi), trade	e in wild specimens (W= wild,	= unknown, and no source			
	reported) was also used	in the analysis in order to asse	ess shifts or differences in			
	reporting b	etween wild to captive-produc	ed sources.]			
Purpose codes ³		All Purposes				
Terms included	Selected	l terms ⁴ :	Live only into the focal			
	baleen, bodies, bones, ca	rapaces, carvings, caviar,	country, but selected on the			
	cloth, eggs, egg (live), fins,	gall and gall bladders, horns	basis of trade exported for			
	and horn pieces, ivory piece	es, ivory carvings, live, meat,	any of the selected terms			
	musk, plates, raw corals,	scales, shells, skin pieces,	listed for i) – v)			
	skins, skeletons, skulls, t	eeth, trophies, and tusks.				
Units of measure		Number (unit = blank)				
	[Trade in other units of	measure (e.g. kilograms, meti	res, 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 Res. Conf. 12.3 (Rev. CoP17).

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

2.2 Methodology

To produce a list of species/country combinations for consideration by the Animals Committee, 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. Details of the methodology applied to select species/country combinations for each of the six criteria are described below (Table 2).

When defining the methodologies that should be applied for each criteria, key points under consideration at the workshop and by UNEP-WCMC when testing the methods on the trade data subsequently were: the scope of the data included (as described above), defining the most relevant contextual information to include in order to help inform the discussions at the Animals Committee; defining thresholds in order to select a reasonable number of species for consideration; and the importance of inclusion of species global threat status (as defined by the IUCN) for certain criteria, amongst others. These aspects were taken into consideration when defining the data included and methods applied.

As there was overlap with the species/country combinations selected under various criteria, some criteria were combined when presenting the results of the analysis in order to simplify the number of tables produced. To avoid compiling one table for each of the six criteria, the criteria have been combined where possible to ease the work of the Animals Committee. The criteria that were considered by the workshop to have highest relevance to conservation of species were criteria i), ii), and vi). As the data requirements were similar for these criteria, the species-country combinations that met criteria i), ii) and iii) are presented together, so it is clear where multiple criteria are met, and additionally if any of these species-country combinations also meet criterion vi, this is indicated. The species country combinations that met criteria iv) and v), which both relate to reporting issues and focus only on Appendix I species, are also presented together. Whilst 'legal acquisition' is related to the conservation of the species within range States, it also is relevant to compliance. A large number of species-country combinations met criteria vi) only, therefore it was decided to present these separately.

Table 2. Overview of methods for selecting candidate species/country combinations for consideration based on the six criteria defined in paragraph 2 a) of Res. Conf. 17.7.

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 (2015) was >4 times the mean of the preceding five years (2010-2014); and Threshold: Average annual trade over the most recent five years (2011-2015) 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 	1200 4 times 5-year mean 1000 - 90 800 - 1000 400 - 200 5-year mean 2010 2011 2012 2013 2014 2015
Criterion ii) Significant numbers	To detect captive- produced species that were being exported at significant volumes.	 process, although here the selection is at the level of species/country combination. 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 threatened⁵ was 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. 	

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	To identify notable shifts in source codes over time as	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:	
codes	reported by countries of export.	 Wild (W, U, source unreported) captive-produced/ranched (C, D, F, R combined) Ranched (R) captive-produced (C, D, F combined). 	Captive produced (CDF)
		Exporter-reported trade in one source code or a set of source codes in a focal year (2013-2015) increased to more than double the mean of the previous 5 years; There were a server and line decrease in trade in great the control of the previous for the previous for the control of the previous for the previous for the control of the previous for the previou	1 2x 1 2x 2x
		 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). 	2010 2011 2012 2013 2014 2015
		Including a minimum threshold was necessary to produce a manageable output for the Animals Committee.	Year
Criterion iv) Reporting inconsistenc ies	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 (2013-	1200
		 2015) 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 	Ranched (R) >10% diff
		 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). 	In this illustration, total volumes are similar, but importers primarily reported the trade as ranched, whereas exporters reported as captive-produced.
		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 2011-2015 included.	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	export (e.g. 'D'	Species/country combinations met this criterion if direct trade was reported as source code 'D' in the most recent three years (2013-2015) 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 analyses 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 exporting 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 were 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) If there have been live imports from a range State, this was subsequent to the first 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 (see Section 2.3.3 on p. 27 for further details) .

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.

Box 1. Determination of species meeting criterion ii) (significant numbers)

To illustrate criterion ii) (significant numbers), we consider a sample order with 11 species/country combinations reported in trade (see table below). Selecting the top 5% means that one species/country combination would be selected in this example.

In the absence of any globally threatened species, species/country combination F would have met this criterion, because the average trade volume (2011-2015) was the highest (700). However, as C and J are globally threatened species, the average trade volumes for these species/country combinations are adjusted by multiplying the trade volume by 10 to give them a higher weighting. The species/country combination with the highest trade volume after adjustment would then be C (in grey below), which would be selected as meeting criterion ii).

Species/country combination	Average Trade Volume 2011-2015	Globally threatened (CR, EN, VU, NT or DD)	Adjusted average trade volume 2011-2015	Criterion met
Α	100	No	100	
В	200	No	200	
C (EN)	80	Yes	800	Sig. numbers
D	250	No	250	
Е	600	No	600	
F	700	No	700	
G	100	No	100	
Н	350	No	350	
1	400	No	400	
J (CR)	50	Yes	500	
К	650	No	650	

2.3 Species selection results

In total, **160 species** and **227 species/country combinations** met at least one of the six criteria in paragraph **2** a) of Resolution Conf. 17.7 based on the methodologies applied. Where possible, criteria sharing similar data requirements were combined in order to minimise the number of tables and to ease with decision-making by showing cases where multiple criteria were met.

Details of which species/country combinations met each criteria are included in Tables 3-5:

- **Table 3** covers species/country combinations that met criteria i), ii) and iii), with an indication of whether the species also met criterion vi) (p. 10).
- Table 4 covers species/country combinations that met criteria iv) and v) (p. 24).
- Table 5 covers species/country combinations that met only criterion vi) (p. 26).

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

- The **criterion met:** i) = "significant increase", ii) = "significant number", iii) = "shift source", iv) = "reporting inconsistencies", v) = "incorrect source code" and vi) = "no legal acquisition";
- **Percentage of trade** that was reported over the five years for each captive-produced source code (C, D, F, R), based on gross exports for Tables 3 and 5, and exporter-reported trade for Table 4;
- The Global **conservation status** of the species, if assessed, as published in The IUCN Red List of Threatened Species⁷;
- Whether the species is considered endemic, according to the distribution records within the Species+⁸;
- Whether the country of export is considered a **range State** for the species ("native") according to the distribution records within the Species+, or is not a range State ("non-native");
- If not a range State, whether the country is defined as a **neighbouring State**9, according to the distribution records within the 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 2011-2017¹¹; and
- Whether a current Standing Committee **recommendation to suspend trade** is in place.

⁷ www.iucnredlist.org Data downloaded on 03rd April 2017

⁸ Species+ is a database maintained by UNEP-WCMC and accessible from <u>speciesplus.net</u>.

⁹ As 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 Annex B.

2.3.1. Criteria i), ii) and iii)

Table 3 provides details of all those species/country combinations that meet criteria i), ii) and iii). These criteria are defined as:

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

Due to the similarities in the data requirements, the output for criteria i) "significant increase", ii) "significant number" and iii) "source shift" have been combined. 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, 118 species and 157 species/country combinations met at least one of these three criteria and are included in Table 3.

Key

Exporter: see Annex A for ISO codes and country and territory names

Term: see Annex B 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.

Criteria met: species/country combinations meeting multiple criteria are in bold.

vi_no legal acquisition^(a) = no evidence of imports into the focal exporting country, vi_no legal acquisition^(b) = first year of import reported <u>after</u> first year of export from the focal exporting country, * = no evidence of exports from any range State(s)

Exporter distribution tag: † = 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 decimal place, when applicable. Data extracted from the CITES Trade Database on 20th April 2017. See Key on p. 10.

Family	Species	Exporter	Term	2011	2012	2013	2014	2015 Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES Quotas listed	Suspensions	% trade by source
								Mammals						
							- 1	Artiodactyla						
Bovidae	Kobus leche (II)	ZA	BOD	1	1	2	4	0 1 met: iii) source	LC		introduced	1975		C(0.3%);
			HOR	12	0		7	5 shift (W-CDFR						F(97%);
			LIV	0	0		50	689 2013)						R(2.7%)
			SKP	5	1	10	2	1						
			SKI	13	119		7	8						
			SKU	18	12		3	19						
			TEE	0	1	0	0	0						
			TRO	129	324		654	477				10=0		D(1000()
Hippopotamidae	Hippopotamus amphibius (II)	MW	TEE	0	0	2303	0	0 1 met: ii) significant number	VU		native	1976		R(100%)
								Carnivora						
Canidae	Vulpes zerda (II)	SD	LIV	45	162	477	634	236 1 met: iii) source shift (W-CDFR 2014)	LC		native	1976		C(100%)
Felidae	Panthera leo (II)	ZA	BOD	18	129	54	16	620 1 met: ii) significant	VU		native	1976		C(99.2%);
	, ,		BON	2108	14	713	42	122 number						F(0.7%)
			CAR	0	0	1	13	0						
			LIV	181	260	159	161	138						
			SKE	498	110	764	1155	477						
			SKI	38	13		14	52						
			SKU	27	32		78	74						
			TEE	4	0		9	4						
			TRO	751	793	760	1056	1139						
								Primates						
Cebidae	Callithrix jacchus	s ZA	BOD	0	2		2	0 2 met: ii)	LC	✓	non-native	1977		C(93.2%);
	(II)		BON	0	0		0	1 significant						F(6.8%)
			LIV	809	1746		911	1442 number; vi) no 0 legal acquisition(b)						
			SKI	0	3		0	<u>~</u>						
			SKU	4	3		5	5						
		011	TRO	3	0		0	3						0(00 =5:)
Cercopithecidae	Macaca	CN	BON	140	172		0	32 1 met: ii) significant	LC		non-	1977		C(99.7%);
	fascicularis (II)		LIV	15210	12580		25122	19306 number			native†			F(0.3%)
			SKU	0	51	700	0	0						

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
								Probos								
Elephantidae	Loxodonta africana (I/II)	ZA	BOD LIV SKP	0 0 0	2	2	2 ()	0 1 met: ii) significant 0 number	VU		native	1976	2011-17		C(0.4%); R(99.6%)
			<u> </u>	<u> </u>		, , ,		Rodei	•							
Chinchillidae	Chinchilla lanigera (I)	ВО	SKI	0	() (0 300)	0 2 met: ii) significant number; vi) no legal acquisition ^(a) *	EN *		non- native†	1977			C(100%)
								Bird								
Anatidae	Cygnus melancoryphus	NL	LIV	465	33′	17		Anserifo	7 1 met: ii) significant number	LC		non-native	1975			C(100%)
	(II)							Ciconiif	ormes							
Phoenicopteridae	Phoenicopterus ruber (II)	CU	LIV	686	1102	2 49			0 1 met: ii) significant number	LC		native	1976			R(100%)
	· ,						(Columbif								
Columbidae	Gallicolumba luzonica (II)	BE	LIV	6	65	5 3			6 1 met: ii) significant number	NT	✓	non-native	1975			C(100%)
								Falconif								
Falconidae	Falco cherrug (II)	DE	BOD LIV TRO	0 155 0	193	3 10	8 15	5 15	2 1 met: ii) significant 9 number	EN		native	1975			C(77.7%); D(22.3%)
		RU	LIV	217	180		•	3 18	9 1 met: ii) significant number	_		native	_	2011-17	✓	C(95.5%); F(4.5%)
								Gallifo								
Phasianidae	Pavo muticus (II)	ID	LIV	0	4		4 37		8 1 met: ii) significant number	EN		native	1977			C(100%)
							_	Gruifor								- /··
Otididae	Chlamydotis macqueenii (I)	AE	BOD LIV	0 290	3067		•	5 573	2 2 met: ii) 2 significant	VU		native	1975			C(35.8%); F(64.2%)
			TRO	0	()	0	1	number; iii) source shift (W-CDFR 2013)	•						
		KZ	LIV	0	() 20			5 1 met: i) significant increase	_		native	_			C(100%)
								Passerife Passer								
Estrildidae	Lonchura oryzivora (II)	CU	LIV	11500	10900	1070	0 11700	390	0 2 met: ii) significant number; vi) no legal acquisition ^(a)	VU		non-native	1997			C(100%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

- amily	Species	Exporter	Term	2011 2	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES Quota listed	s Suspensions	% trade by source
	-							Psittaci							
Cacatuidae	Cacatua alba (II)	ID	LIV	30	20				75 1 met: i) significant increase		√	native	1981		C(100%)
Psittacidae	Agapornis fischeri (II)	ΙΤ	LIV	353	210	954		0 12	40 2 met: ii) significant number; iii) source shift (W-CDFR 2014)	NT e		non- native†	1976		C(100%)
		NL	LIV	6413	32398	20334	220	6 38	99 1 met: i) significant increase	_		non-native			C(100%)
		PH	LIV	3370	10452	28953	3023	8 2	26 1 met: ii) significant number	_		non-native			C(99.8%); F(0.2%)
		UZ	LIV	215	723	2197	7 54	4 34	90 2 met: ii) significant number; vi) no legal acquisition ^(a)			non-native			C(100%)
		ZA	LIV	3519	7931	33545	6631	0 20	80 2 met: i) significan increase; vi) no legal acquisition ^(a)	it		non-native			C(100%)
	Agapornis personatus (II)	ID	LIV	0	0	0) 8	0 5	60 2 met: i) significan increase; vi) no legal acquisition ^(a)	t LC	✓	non-native	1976		C(100%)
		UZ	LIV	75	302	799)	0 29	00 1 met: i) significant increase			non-native			C(100%)
		ZA	LIV	9826	10590	19855	2618	0 950	82 2 met: i) significan increase; ii) significant numbe			non-native			C(100%)
	Agapornis taranta (II)	BE	LIV	75	151	186	5 24	0 5	32 2 met: i) significan increase; vi) no legal acquisition ^(a)			non-native	1976		C(100%)
	Amazona aestiva (II)	AR	LIV	771	1014	726	3 20	0 11	44 1 met: iii) source shift (R-CDF 2013)	LC		native	1976		C(67.6%); R(32.4%)
	Amazona farinosa (II)	ZA	LIV	111	107				42 1 met: i) significant increase			non-native			C(100%)
	Cyanoramphus novaezelandiae (I)	UZ	LIV	0	16	98	3 23	6 18	96 2 met: i) significan increase; vi) no legal acquisition ^(a)			non-native	1975		C(100%)
	Myiopsitta monachus (II)	BE	LIV	157	141	166	3 28	6 11	15 1 met: i) significant increase	LC		non-native	1976		C(100%)
	()	CZ	LIV	18	155	34	35	5 7	26 1 met: i) significant increase	_		non- native† ^(intro)			C(100%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	S Quotas	Suspensions	% trade by source
Psittacidae cont	Platycercus eximius (II)	UZ	LIV	10	299) 25	1 19		66 2 met: i) significan increase; vi) no legal acquisition ^(a)		✓	non-native				C(100%)
	Prosopeia personata (II)	NL	LIV	0					50 1 met: i) significant increase		✓	non-native				C(100%)
	Psephotus haematonotus (II)	UZ	LIV	0	64	10	1 318	8 50	00 1 met: i) significant increase	LC	√	non-native	1976			C(100%)
	Psittacula columboides (II)	ZA	LIV	0	С) 8	0 118	8 17	72 2 met: i) significan increase; vi) no legal acquisition ^(a)		✓	non-native	1976			C(100%)
	Psittacus	ZA	BOD	0	C)	0	1	0 2 met: ii)	EN		non-native	1976			C(98.1%);
	erithacus (I)		LIV	30726	41794	4972	7645	7 5312	22 significant							F(1.9%)
			TRO	1	1			0	number; iii) source shift (W-CDFR 2014)	•						
								Rheifo	rmes							
Rheidae	Rhea americana	UY	EGG	150	300)	0 30	0	0 1 met: ii) significant	NT		native	1976			C(100%)
	(II)		SHE	200	900	30	0 90	0 70	00 number							
			SKP	0	14000) (0 (0	0							
			SKI	0	6000	600	0 (0	0							
								Strigifo								
Strigidae	Ptilopsis leucotis	GB	BOD	0	2			0	0 1 met: ii) significant	LC		non-native	1976			C(100%)
	(II)		LIV	66	65	5 7:	3 6	1 ;	38 number							
							S	truthion	iformes							
Struthionidae	Struthio camelus (I)	XX	LIV	0	C	32	0 (0	0 1 met: ii) significant number	LC		non-native	1983			C(100%)
								Rept	iles							
								Croco								
Crocodylidae	Crocodylus	BW	LIV	1	1	00		0	0 1 met: iii) source	LC		native	1975	2011		C(46.4%);
	niloticus (I/II)		SKI	1800	2800				oo shift (W-CDFR							R(53.6%)
			SKP	0	C			0	<u>0</u> 2013,2014)							
			TRO	5	C			0	0	_			_			
		MG	SKI	368	C				48 1 met: i) significant			native		2011	✓	C(91%);
			SKP	357	C			0	0 increase							R(9%)
			SKU	0	C			0 309		_			_			<u> </u>
		MW	SKI	2160	6563				46 1 met: iii) source			native		2011-12	2	C(2.7%);
			SKP	150	C			0	0 shift (W-CDFR							R(97.3%)
		NIA.	SKU	2	00			0	0 2013)	_			_	0044.45	,	0(000()
		NA	SKI SKP	201	807 800		3 1803 0 289		<u>10</u> 0			native		2011-17	•	C(80%); R(20%)
			SNP	U	000	,	J 289	I	U							11(20/0)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

	Crocodylus niloticus (cont.)	UG ZM	SKI SKI BOD SKE SKI	0 0 48 0	405	400		0	1 met: iii) source shift (R-CDF 2013,2014) 1 met: iii) source						
			BOD SKE SKI	48		400	515		1 mat: :::\ aa;;raa						
		ZM	SKE SKI		Ω				shift (W-CDFR 2013,2014)	_	native	_			C(0.4%); R(99.6%)
			SKI	Λ	U	0	0	0	1 met: iii) source	_	native		2011-	,	C(4.2%);
				J	0	0	306	0	shift (W-CDFR				12,		R(95.8%)
			OLCD	40015	14673	45368	57337	43926	2014,2015)				2015-17		
			SKP	9807	14250	11300	43700	109048	•						
			SKU	2	0	0	0	0	•						
			TRO	6	4	0	0	0	•						
		ZW	LIV	0	5	0	0	0	1 met: ii) significant		native	_	2011-17		C(48.6%);
			SKI	141083	111999	149339	129947	140607	number						R(51.4%)
			SKP	43962	38384	36281	40808	67018							
			SKU	1	0	0	40	1							
			TRO	0	1	8	1	1	•						
	Crocodylus	TH	BOD	313	236	78417	519		1 met: ii) significant	CR	native	1975			D(100%)
Sia	siamensis (I)		EGG	70	1000	200			number						
			GAB	0	0	0									
			LIV	10530	405	74	19								
			MEA	500	0		353365								
			SKI	35298	29171	36462	26454	26914							
			SKP	869	1743	37157	860	778							
			SKU	153	252	543	354	31							
			TEE	500	0	6314	0								
			TRO	18	7	4				_		_			
		VN	BOD	0	2	115			1 met: ii) significant		native		2012-17		C(0.7%);
			LIV	12152	15083	36000	23876		number						D(99.3%)
			SKI	7602	6280	9319		9116							
			SKP	0	1400	1000	0								
								Sauria							2/12/21/
	Chamaeleo calyptratus (II)	CZ	LIV	1350	9844	9544	5385		1 met: ii) significant number	_	non-native	_			C(100%)
		TH	LIV	0	0	0	643		2 met: i) significant increase; vi) no	t	non-native				C(100%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
Chamaeleonidae (cont.)	Furcifer pardalis (II)	CZ	LIV	0	0	350	362	894	1 met: i) significant increase	LC	√	non-native				C(100%)
,	()	HU	LIV	0	0	C	216	380	1 met: i) significant increase	_		non-native	-			C(100%)
		UA	LIV	548	1622	2027	728	198	1 met: ii) significant number			non-native	=			C(100%)
		US	LIV	82	0			536	1 met: i) significant increase			non-native				C(32.5%); F(67.5%)
	Kinyongia boehmei (II)	KE	LIV	210	1030	1172	2 531	683	1 met: ii) significant number	NT	√	native	1977			C(86.5%); F(12.1%); R(1.4%)
Iguanidae	Iguana iguana (II)	SV	BOD LIV	0 243802	232988				1 met: ii) significant number	NE		native	1977			C(100%)
Varanidae	Varanus exanthematicus (II)	GH	LIV	90	653	550	350	890	1 met: iii) source shift (W-CDFR 2014)	LC		native	1975			C(21.7%); R(78.3%)
		TG	LIV	8096	8042	11006	9038	10968	1 met: ii) significant number	_		native	_	2011-17		C(0.1%); F(5.9%); R(94%)
	Varanus ornatus (II)		LIV	360	400	400	570	1253	1 met: ii) significant number	VU		native	1975	2011-17		R(100%)
	Varanus timorensis (II)	ID	LIV	1070	609	444	825		1 met: ii) significant number	NE	✓	native	1975			C(98.6%); F(1.4%)
								Serpent								
Colubridae	Ptyas mucosus (II)	ID	LIV	50000	47500	34500	65000	18300	1 met: iii) source shift (W-CDFR 2014)	NE		native	1984	2011-17		C(99.3%); F(0.7%)
Pythonidae	Python bivittatus (II)		SKI	29500	37800	7000	0		1 met: ii) significant number			native	1975			C(100%)
		VN	EGG	0	0				1 met: ii) significant	_		native	-			C(100%)
			LIV	2577	3360				number							
			SKI	192964	160240											
	Python regius (II)	TG	LIV	54486	60966				1 met: ii) significant	LC		native	1975	2011-17		F(1.1%);
			SKI	0	0				number							R(98.9%)
	Python reticulatus (II)	VN	LIV	0	29				1 met: ii) significant	NE		native	1975			C(100%)
	reticulatus (II)		SKP SKI	25	50020			<u> </u>	number							
		LA	SKI	126916 96000	50832 131400			46229	1 met: ii) significant	_		native	_		✓	C(100%)
								Tastur	number							
Emudidos	Emydoidea	US	LIV	^	^	119) 0	Testudir		EN		notive	2013			F(100%)
Emydidae	Emydoidea blandingii (II)	US	LIV	0	0	118	0	367	1 met: i) significant increase	CIN		native	2013			F(100%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
Geoemydidae	Cuora amboinensis (II)	ID	LIV	40	43	C	324	950	1 met: i) significant increase	VU		native	2000	2011-17	•	C(6.1%); F(93.9%)
	Cuora mouhotii (II)	VN	LIV	0	275	857	' 0	0	1 met: iii) source shift (W-CDFR 2013)	EN		native	2000			C(96.5%); R(3.5%)
	Mauremys annamensis (II)	US	LIV	12	0	35	5 50	593	1 met: i) significant increase	CR	✓	non-native	2003			C(80.7%); F(19.3%)
	Mauremys japonica (II)	JP	LIV	0	0	C	224		1 met: i) significant increase		✓	native	2013			F(100%)
	Mauremys nigricans (II)	US	LIV	33	58	60	103	372	2 met: i) significant increase; vi) no legal acquisition ^{(a)*}	EN		non-native	2005			C(1.8%); F(98.2%)
Podocnemididae	Podocnemis unifilis (II)	PE	LIV	76806	133786	205876	320141	434948	1 met: ii) significant number	VU		native	1975			C(7.4%); F(13.1%); R(79.6%)
Testudinidae	Centrochelys sulcata (II)	IT	LIV	0	0	C	2409	5200	1 met: i) significant increase	VU		non-native	1975			C(100%)
		SD	LIV	17	150	1083	1463	2544	1 met: i) significant increase	_		native	_	2012-16	3	C(100%)
		SV	LIV	1266	795				1 met: i) significant increase	_		non-native	_			C(100%)
		US	LIV	10883	10340	6867			1 met: ii) significant number			non-native				C(47.4%); F(52.6%)
	Chelonoidis carbonarius (II)	SV	LIV	200	1200	2104			1 met: i) significant increase	NE		non-native				C(100%)
	Indotestudo elongata (II)	VN	LIV	535	1046	10439	710		1 met: iii) source shift (W-CDFR 2013)	EN		native	1975			C(99.2%); R(0.8%)
	Kinixys belliana (II)	TG	LIV	1302	350	762	2 1861	1316	2 met: iii) source shift (W-CDFR 2014); vi) no legal acquisition ^(a)	NE		non-native	1975	2011-17		C(2.2%); F(2.1%); R(95.7%)
	Stigmochelys pardalis (II)	KE	LIV	510	310	1300	3705	10465	1 met: i) significant increase	LC		native	1975			C(100%)
		TZ	LIV	3800	1292	4645	6868	8618	1 met: iii) source shift (W-CDFR 2014)	-		non-native	-			F(100%)
	Testudo graeca (II)	SY	LIV	13750	6950	7801	5900	1300	1 met: ii) significant number	VU		native	1975			C(51.7%); F(1.7%); R(46.6%)
	Testudo hermanni (II)	MK	LIV	8600	8101	10101			1 met: ii) significant number	NT		native	1975			C(99.6%); F(0.4%)
		SI	LIV	1722	3252	7084	10347	12450	1 met: ii) significant number			native				C(96.7%); D(3.3%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
Testudinidae (cont.)	Testudo horsfieldii (II)	UA	LIV	14200	5590	10700	7720	190	00 2 met: ii) significant number; vi) no legal acquisition ^(b)	VU		non- native†	1975	2011-17		C(13.4%); F(86.6%)
		UZ	LIV	21478	31500	35131	52703	4888	1 1 met: ii) significant number			native	-			C(2.4%); R(97.6%)
								Amphil	oians							
								Anu								
Bufonidae	Nectophrynoides asperginis (I)	US	LIV	200	3500	2000) () 150	00 2 met: ii) significant number; vi) no legal acquisition ^(a) *	EW	√	non-native	1975			C(27.8%); F(72.2%)
Dendrobatidae	Oophaga pumilio	NI	LIV	0	0	0	1236	6 447	7 1 met: i) significant increase	LC		native	1987	2015-16		C(100%)
		PA	LIV	4525	6180	5220	6300) 117	75 1 met: ii) significant number			native	_			C(100%)
	Ranitomeya amazonica (II)	CA	LIV	0					32 1 met: i) significant increase	DD	✓	non-native				C(100%)
	Ranitomeya fantastica (II)	CA	LIV	418	552	678	350		64 1 met: ii) significant number		√	non-native	1987			C(100%)
Hylidae	Agalychnis callidryas (II)	NI	LIV	22769	33202	26156	20150	2218	31 1 met: ii) significant number	LC		native	2010	2013-16		C(99.9%); F(0.1%)
								Caud								
Ambystomatidae	Ambystoma mexicanum (II)	US	BOD EGG	0 60	250 0	0)	0 2 met: ii) 0 significant	CR	✓	non- native†	1975			C(100%)
			LIV	604	665	464	937		0 number; vi) no legal acquisition ^(a) *	;						
								Fis								
			0.417						riformes				1000			0//000//
Acipenseridae	Acipenser baerii (II)	DE	CAV LIV	57 1243	68 650	1000	760	2939	0 2 met: i) significant no increase; vi) no	t EN		non-native	1998			C(100%)
			SKI	0		0			0 legal acquisition(b)	_			_			
		FR	BOD	0		7350			20 2 met: ii)			non-native				C(99.9%);
			CAV	21	501842	C	120000		o significant number; vi) no							D(0.1%)
			EGL	3000000	3700000	1270000			legal acquisition(b)							
			FIN	3900000	0	1270000			<u>0</u>							
			LIV	7900	29365											
		PL	EGL	450000	23303				0 2 met: ii)	_		non-	-	-		C(100%)
			LIV	650	2580	1100			o significant			native†				3(10070)
			MEA	2620	0			·	number; vi) no legal acquisition ^(b)			'				

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	listed		Suspensions	% trade by source
Acipenseridae (cont.)	Acipenser gueldenstaedtii (II)	BG	CAV	0	122			859 590	1 met: i) significant increase	CR		native	1998	2011- 15, 2017		C(100%)
	(11)	FR	CAV EGL LIV	3 0 0	1	50000	35000	0 425000	1 met: i) significant increase	_		non-native		2017		C(100%)
	Acipenser sturio (I)		LIV	0	0			380	1 met: i) significant increase			native	1975			C(58.7%); D(41.3%)
Polyodontidae	Polyodon spathula (II)	US	BOD CAV EGL	0 12000 485750	250000 599000	0	0	0	1 met: ii) significant number	VU		native	1992			F(100%)
								atodonti	formes							
Neoceratodontidae	e Neoceratodus forsteri (II)	AU	BOD LIV	78 143	0 189				1 met: ii) significant number	NE	✓	native	1975			C(10%); F(90%)
							Ost	eoglossi	iformes							
Arapaimidae	Arapaima gigas (II)	BR	BOD LIV PLA	12 0 0	12 100 0	0	0	100	1 met: i) significant increase	DD		native	1975			C(72.4%); F(27.6%)
		10/	SKP SKI	0	0	0	369	394 1968	- - -							0(0.400)
Osteoglossidae	Scleropages formosus (I)	MY	LIV	61572	139760	158137	132088	119039	2 met: ii) significant number; iii) source shift (W-CDFR 2013)	EN •		native	1975			C(0.1%); D(99.9%)
							Sy	ngnathif	ormes							
Syngnathidae	Hippocampus comes (II)	VN	BOD LIV	7700	5300				1 met: iii) source shift (W-CDFR 2013,2014)	VU		native	2004	2011-13		C(0.2%); F(99.8%)
	Hippocampus ingens (II)	MX	LIV	350	660	2250	750	0	1 met: iii) source shift (W-CDFR 2013)	VU		native	2004			C(100%)
	Hippocampus kuda (II)	VN	LIV	66070	37980	15342			1 met: ii) significant number	VU		native	2004	2011-12	✓	C(0.7%); F(99.3%)
							ı	nvertebr								
Theraphosidae	Brachypelma smithi (II)	MX	LIV	2303	2633	180	10	Aranea 0	ae 1 met: ii) significant number	NT	√	native	1985			C(100%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
							Ari	hynchob	dellida							
Hirudinidae	Hirudo medicinalis (II)	RO	LIV	0	1000	15000	11000	14000	1 met: iii) source shift (W-CDFR 2013-2015)	NT		non- native†	1987	2011, 2013-17		C(100%)
		RS	LIV	0	0	0	2680	5700) 2 met: i) significant increase; vi) no legal acquisition ^(a)	_		non- native†	_			F(100%)
		RU	LIV	123000	120000	124000	123000	121000	1 met: ii) significant number	_		native	_			C(100%)
								Lepidop	tera							
Papilionidae	Ornithoptera croesus (II)	ID	TRO	6113 260	3717 0	1355 0			2 met: ii) 3 significant number; iii) source shift (R-CDF 2014,2015)	EN	√	native	1979			C(3.5%); F(32.3%); R(64.2%)
	Ornithoptera goliath (II)	ID	BOD LIV TRO	2804 0 230	2121 0 0		0	C	1 met: iii) source shift (R-CDF 2015)	NE		native	1977			C(1.6%); F(28.8%); R(69.6%)
	Ornithoptera priamus (II)	SB	BOD	0	0	800	0	684	1 met: i) significant increase	NE		native	1979		✓	F(46.1%); R(53.9%)
		ID	BOD LIV TRO	12264 2400 530	10169 1200 0	5877 0	0	C	3 1 met: iii) source shift (R-CDF 2015)	NE		native				C(6%); F(17.4%); R(76.6%)
	Ornithoptera rothschildi (II)	ID	BOD TRO	2631 135	2061	678 0			1 met: iii) source shift (R-CDF 2015)	VU	✓	native	1979			C(1.5%); F(13.4%); R(85%)
	Troides amphrysus (II)	ID	BOD	951	335	176	862	382	2 1 met: iii) source shift (R-CDF 2015)	NE		native	1979			C(0.6%); F(38.3%); R(61.1%)
	Troides criton (II)) ID	BOD	1580	1043	129	1328	930	1 met: iii) source shift (R-CDF 2015)	NE	√	native	1979			C(0.2%); F(39.5%); R(60.3%)
	Troides haliphron (II)	ID	BOD	2157	1035	199	1171	1370	1 met: iii) source shift (R-CDF 2015)	NE	✓	native	1979			C(0.2%); F(25.1%); R(74.7%)
	Troides helena (II)	ID	BOD EGL LIV	2437 0 2500	1932 0 1900	456 400 0	0	C	1 met: iii) source shift (R-CDF 2015)	NE		native	1979			C(1.3%); F(26.8%); R(71.8%)
	Troides hypolitus (II)	s ID	BOD	1338	1007	351			1 met: iii) source shift (R-CDF 2015)	NE	✓	native	1979			C(1.4%); F(22.4%); R(76.3%)
	Troides rhadamantus (II)	PH	BOD LIV	951 52693	552 67691	80370			1 met: ii) significant number	NE	✓	native	1979			C(99.8%); F(0.2%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
	Troides vandepolli (II)	ID	BOD	567	144	129			253 1 met: iii) source shift (R-CDF 2015)	NE	✓	native	1979			F(36.1%); R(63.9%)
							IV	/lesoga	astropoda							
Strombidae	Strombus gigas (II)	TC	SHE	2712	3132	0) (0	0 1 met: ii) significant number	NE		non-native	1992			R(100%)
Scorpionidae	Pandinus imperator (II)	TG	LIV	22830	34650	27017	1082		piones 500 1 met: ii) significant number	NE		native	1995	2011- 12, 2016-17	<u> </u>	R(100%)
								Ven	eroida							
Tridacnidae	Tridacna crocea (II)	FM	LIV	0	0	C	11.	1 1	317 2 met: i) significant increase; vi) no legal acquisition ^(b)	: LC		non-native	1985			F(100%)
		PW	LIV SHE	1142 62	3536 19	8076 54			610 1 met: iii) source 150 shift (W-CDFR 2014)	_		native	-			C(13.9%); F(86.1%)
	Tridacna derasa (II)	MH	LIV	12226	6553	4964	4837	7 4	055 1 met: ii) significant number	VU		introduced	1983			C(100%)
	Tridacna maxima (II)	FM	LIV	6928	6630	9082	? 797	5 19	346 1 met: ii) significant number	NT		non-native	1985			C(20.2%); F(79.8%)
		PW	SHE	781 24	774 0	3253 40.5			940 1 met: iii) source 50 shift (W-CDFR 2014)			native				C(12.2%); F(87.8%)
		ТО	COR LIV	0 17	0			0 1 13	0 1 met: i) significant 678 increase	_		native	-			C(1%); F(99%)
	Tridacna squamosa (II)	AU	BOD LIV	200 200	0 200	08 80		0 0	0 1 met: i) significant 735 increase	NT		native	1985			F(100%)
									orals							
									poracea							
Helioporidae	Heliopora coerulea (II)	ID	LIV COR	0	0	0		6	272 1 met: ii) significant 61 number	VU		native	1985	2011-17		C(2.4%); F(97.6%)
								Scle	ractinia							
Acroporidae	Acropora millepora (II)	ID	COR LIV	3365	0 10678	14296		0 5 14	26 1 met: ii) significant 852 number			native	1985			C(4.2%); F(95.8%)
	Acropora tenuis (II)	ID	COR LIV	3 1579	0 4346	5811		0 5 6	3 1 met: ii) significant	NT		native	1985			C(6%); F(94%)
Caryophylliidae	Catalaphyllia jardinei (II)	ID	COR LIV	0	0 21	12 743	5	7	14 1 met: i) significant 206 increase	VU		native	1990	2011-17		C(0.7%); F(99.3%)
	Euphyllia ancora (II)	ID	COR LIV	0 7079	70 13177	376 36240	1184	4	821 1 met: ii) significant 546 number	VU		native	1985	2011-17		C(0.7%); F(99.3%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015 Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas Suspensions	% trade by source
Caryophylliidae (cont.)	Euphyllia divisa (II)	ID	COR	0	0			shift (W-CDFR	NT		native	1985	2011-17	C(0.2%); F(99.8%)
	Frankrallia	ID.	LIV	772	310				NIT			4005	2011-17	C(0.00():
	Euphyllia glabrescens (II)	ID	COR LIV	773 25728	856 36643				INI		native	1985	2011-17	C(0.9%); F(99.1%)
	Euphyllia	ID	COR	23728	30043				+ \/		native	1985	2013-17	C(0.5%);
	paraancora (II)	ID.	LIV	0	0						nauve	1905	2013-17	F(99.4%); R(0.1%)
	Euphyllia	ID	COR	0	0	C	150	228 1 met: i) significant	٧U		native	1985	2013-17	C(0.1%);
	paradivisa (II)		LIV	0	0	C	2646							F(99.9%)
	Euphyllia yaeyamaensis	ID	COR	0	0 1280			number	NT		native	1985		C(0.2%); F(99.8%)
	(II)													
	Physogyra	ID	COR	0	0				VU		native	1990	2011-17	C(0.1%);
	lichtensteini (II)		LIV	0	100									F(99.9%)
	Plerogyra	ID	COR	0	0				NT		native	1990		C(1.6%);
	simplex (II)		LIV	0	0							1000		F(98.4%)
	Plerogyra	ID	COR	0	0				ΝI		native	1990	2011-17	C(0.1%);
	sinuosa (II)	. ID	LIV	0	8				\// 1			1000	0044.47	F(99.9%)
	Plerogyra turbida	מו פּ	COR LIV	0	0				VU		native	1990	2011-17	F(100%)
Faviidae	Diploastrea	ID	COR	0	0				NIT		native	1990	2011-17	F(100%)
raviluae	heliopora (II)	טו	LIV	0	0				INI		Halive	1990	2011-17	F(100%)
Fungiidae	Polyphyllia	ID	COR	0	0				LC		native	1985	2011-17	F(100%)
rungildae	talpina (II)	טו	LIV	0	5				LC		Halive	1905	2011-17	1 (100 %)
Mussidae	Acanthastrea	ID	COR	0	0				LC		native	1990		C(0.7%);
Massiace	echinata (II)	10	LIV	0	867				LO		Hativo	1000		F(99.3%)
	Australomussa	ID	COR	0	0	C) 21	1 35 1 met: i) significant	NT		native	1990		C(0.3%);
	rowleyensis (II)		LIV	0	0	206	833							F(99.5%); R(0.2%)
	Blastomussa	ID	COR	0	0				LC		native	1990		F(100%)
	merleti (II)		LIV	0	0									
	Blastomussa wellsi (II)	ID	LIV	0	0	27		increase			native	1990	2011-17	C(1.3%); F(98.7%)
Pectiniidae	Mycedium	ID	COR	0	0			, ,	LC		native	1990	2014-15	F(100%)
	elephantotus (II)		LIV	0	110									
Pocilloporidae	Stylophora	ID	COR	368	877	539			NT		native	1985		C(0.5%);
	pistillata (II)		LIV	8291	17702									F(99.5%)
Poritidae	Porites	ID	COR	653	585				VU		native	1990		C(0.4%);
	nigrescens (II)		LIV	6703	7442	670) 19	9 22 number						F(99.6%)

Table 3. Species/country combinations that met criteria i), ii) or iii) with an indication if criteria vi) was also met

Family	Species	Exporter	Term	2011	2012	2013	2014	2015	Criteria met	IUCN Red List	Endemic	Exporter dist. tag	Year CITES listed	Quotas	Suspensions	% trade by source
								Stolo	nifera							
Tubiporidae	Tubipora musica	a ID	COR	() ()	0 5	0	59 2 met: i) significan	t NT		native	1985	2011-17		F(100%)
	(II)		LIV	2′	1 () 4	10 87	'5 18	52 increase; ii)							
									significant number	•						

2.3.2. Criteria iv) and v).

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

- iv) inconsistencies between source codes reported by exporting and importing Parties for specimens declared as produced in captivity ("reporting inconsistencies");
- 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 ("incorrect application of source codes");

In total, 18 species and 23 species/country combinations met criteria iv) and v) and are included in Table 4.

Given the commonalities across the datasets considered for these criteria the output for criteria iv) and v) are combined. In particular, only trade in Appendix I species is considered for these two criteria. As criteria iv) relates to cross-checking discrepancies across trading partners (e.g. trade as reported by countries of import and countries of export), it was decided at the workshop and in consultation with the Secretariat, that only Appendix I trade should be considered for criteria iv) as Parties do not report consistently on imports of Appendix II species. Similarly, as criteria v) is concerned with misreporting of source code D (which is only applicable to Appendix I species), only Appendix I trade was checked to detect cases where source code D was used in the absence of a current CITES registered breeding facility.

The workshop considered that criteria iv) and v) on reporting discrepancies may be of lower relevance to concerns relating to the conservation of species than criteria i), ii), iii) and vi), although it was noted that issues identified in this context might also be of relevance to the Standing Committee.

<u>Key</u>

Exporter: see Annex A for ISO codes and country and territory names

Term: see Annex B for term codes and descriptions

Exp. Quant & Imp. Quant: exporter and importer reported quantities summed across the captive source codes (C, D, F and R) for the most recent five years of trade (2011-2015).

IUCN Red List: NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered, EW = Extinct in the Wild.

% 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, 2011-2015. Quantities rounded to the nearest decimal place, when applicable. Data extracted from the CITES Trade Database 20th April 2017. See Key on p. 24.

Family	Species	Exporter	Term	Exp. Quant.	Imp. Quant	Criteria iv) Reporting inconsistency	Criteria v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
						Mammals				
						Artiodactyla				
Bovidae	Oryx dammah	ZA	SKU	5	7	E (CDFR) - I (W)		EW	non-native	C (2.7%); F (96%); R (1.3%)
			TRO	272	194	<u> </u>				
			HOR	2	17	<u>-</u>				
			SKP	0	2					
			BOD	3	7	_				
			SKI	10	12	2				
			LIV	8	3	3				
						Carnivora				
Canidae	Speothos venaticus	FR	LIV	1	(✓	NT	non-native	D (100%)
elidae	Panthera tigris	DE	BOD	2	•	<u>L</u>	✓	EN	non-native	C (80%); D (20%)
			LIV	23	27					
						Birds				
						Falconiformes				
alconidae	Falco peregrinus	PE	LIV	49	20)	✓	LC	native	C (67.3%); D (32.7%)
		SI AE	LIV	14	2′		✓	_	native	C (64.3%); D (35.7%)
		AE	LIV	104	4(✓		native	C (76%); D (1%); F (23.1%)
						Passeriformes				
Sturnidae	Leucopsar rothschildi	DE	LIV	13	8		✓	CR	non-native	C (84.6%); D (15.4%)
						Psittaciformes				
sittacidae	Amazona auropalliata	IT	LIV	27	39)	✓	VU	non-native	C (70.4%); D (29.6%)
	Amazona brasiliensis	DE	LIV	7	4		✓	VU	non-native	D (100%)
	Amazona oratrix	UK	LIV	51	(}	✓	EN	non-native	C (88.2%); D (2%); F (9.8%)
	Amazona vinacea	IT	LIV	4	2)	✓	EN	non-native	C (50%); D (50%)
	Anodorhynchus hyacinthinus	DE	LIV	7	1()	✓	VU	non-native	C (14.3%); D (85.7%)
		US	SKI	0	•		✓	='	non-native	D (58.3%); F (41.7%)
			LIV	12	19	-				
	Ara macao	DE	LIV	20	48	3	✓	LC	non-native	C (90.5%); D (4.8%); F (4.8%)
			BOD	1	•	_				
		ΙΤ	LIV	9	3	3	✓		non-native	C (77.8%); D (22.2%)
	Eunymphicus cornutus	DE	LIV	27	(3	✓	VU	non-native	C (40.7%); D (59.3%)
	Guarouba guarouba	DE	BOD	3	()	✓	VU	non-native	C (37.5%); D (62.5%)

Table 4. Species/country combinations that met criteria iv) or v)

Family	Species	Exporter	Term	Exp. Quant.	Imp. Quant	Criteria iv) Reporting inconsistency	Criteria v Incorrect source code	IUCN Red List	Exporter distribution tag	% trade by source
			LIV	5	13	3				
	Primolius couloni	DE	LIV	2	2		✓	VU	non-native	D (100%)
						Reptiles				
						Crocodylia				
Crocodylidae	Crocodylus porosus (I/II)	MY	SKP	240	1241	_	✓	LC	native	C (2.2%); D (96.9%); F (0.9%)
			LIV	1850	560	-				
			SKI	8301	10301	_				
			TRO	11	0	<u></u>				
			BON	428	0	<u></u>				
			SKU	5	4	<u> </u>				
			MEA	17	3500	<u>.</u>				
			EGG	150	0	<u></u>				
			TEE	10	0	_				
			BOD	57	13			•		
		VN	SKI	108	0		✓		native	C (4.4%); D (95.6%)
			SKP	112	C					
			LIV	4800	C					
	Crocodylus siamensis	KR	SKI	6592	0		√	CR	non-native	D (100%)
						Serpentes				
Boidae	Acrantophis madagascariensis	DE	LIV	6	1		√	LC	non-native	C (83.3%); D (16.7%)
						Fish				
<u> </u>						Osteoglossiformes				5 (1992)
Osteoglossida	e Scleropages formosus	SG	LIV	81777	63336	6 E (CDFR) - I (W)		EN	introduced	D (100%)

Criterion vi) only 2.3.3.

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, 37 species and 52 species/country combinations met criterion vi) only and are included in Table 5. An additional 9 species and 16 species/country combinations met this criteria 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 Annex A for ISO codes and country and territory names

Term: see Annex B 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.

% 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) 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 decimal place, when applicable. Data extracted from the CITES Trade Database 20th April 2017. 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	Species	Exporter	Term	Sum of trade (2011-15)	Criteria vi) no legal acquisition	IUCN Red List	Endemic	Neighbour range state	Year CITES listed	% trade by source
				Bir						
				Passerif	formes					
Strildidae	Lonchura oryzivora (II)	ZA	LIV	4610	no import	VU			1997	C(100%)
				Psittaci	formes					
oriidae	Lorius lory (II)	ZA	BOD	1	no import	LC			1981	C(98.7%);
			LIV	2306						F(1.3%)
			SKU	1						
sittacidae	Agapornis fischeri (II)	CU	LIV	50250	no import	NT			1976	C(100%)
	Agapornis nigrigenis (II)	BE	LIV	1488	first import after first export	VU			1976	C(100%)
		PH	LIV	4944	no import			•	_	C(100%)
	Aratinga jandaya (II)	ZA	LIV	19708	no import	LC	✓		1976	C(100%)
	Aratinga solstitialis (II)	PH	LIV	2409	no import	EN			1976	C(100%)
		ZA	BOD	2	no import	<u></u>			-	C(99.9%);
			LIV	62827						F(0.1%)
	Cyanoramphus auriceps (II)	BE	LIV	5631	no import	NT	✓		1976	C(100%)
		CZ	LIV	9075	no import				_	C(100%)
		IT	LIV	1260	no import				_	C(100%)
		NL	LIV	2717	no import					C(100%)
	Cyanoramphus novaezelandiae (I)	BE	LIV	2012	no import	NT			1975	C(100%)
		CZ	LIV	5158	no import				_	C(98.1%);
										R(1.9%)
	Neophema pulchella (II)	BE	LIV	2019	no import	LC	✓		1976	C(100%)
		NL	LIV	2142	no import	_			_	C(100%)
		ZA	LIV	6982	no import					C(100%)
	Neopsephotus bourkii (II)	BE	LIV	3403	no import	LC	✓		1976	C(100%)
		CU	LIV	1242	no import					C(100%)
	Platycercus caledonicus (II)	BE	LIV	1660	no import	LC	✓		1976	C(100%)
	Platycercus elegans (II)	BE	LIV	6327	first import after first export	LC	✓	-	1976	C(100%)
		NL	LIV	7212	first import after first export					C(100%)
	Platycercus eximius (II)	BE ZA	LIV	12744	first import after first export	LC	✓	-	1976	C(100%)
		ZA	BOD	3	no import					C(100%)
			LIV	6821	_					
			TRO	3						
	Platycercus icterotis (II)	BE	LIV	2110	no import	LC	✓		1976	C(100%)

Table 5. Species/country combinations that met criteria vi) only.

Family	Species	Exporter	Term	Sum of trade (2011-15)	Criteria vi) no legal acquisition	IUCN Red List	Endemic	Neighbour range state	Year CITES listed	% trade by source
Psittacidae cont.	Poicephalus rueppellii (II)	ZA	BOD	1	no import	LC		✓	1976	C(100%)
			LIV	2473						
	Polytelis alexandrae (II)	BE	LIV	1484	first import after first export	NT	✓		1976	C(100%)
	Polytelis swainsonii (II)	CZ	LIV	2569	first import after first export	LC	✓		1976	C(100%)
	Psephotus haematonotus (II)	BE	LIV	22960	first import after first export	LC	✓		1976	C(100%)
		CU	LIV	1712	no import				_	C(100%)
		ZA	LIV	5626	no import					C(100%)
			TRO	1						
	Pyrrhura hoffmanni (II)	ZA	LIV	3344	no import	LC			1976	C(100%)
	Pyrrhura perlata (II)	ZA	LIV	8461	no import	VU			1976	C(100%)
	Pyrrhura rhodocephala (II)	ZA	LIV	1676	no import*	LC	✓		1976	C(100%)
				Rept	iles					
				Sau	ria					
Agamidae	Uromastyx acanthinura (II)	ML	LIV	3756	no import	NE		✓	1977	C(36.3%); F(49.5%); R(14.2%)
	Uromastyx ornata (II)	ML	LIV	2026	no import	LC			1977	C(46.2%); F(53.8%)
Chamaeleonidae	Chamaeleo calyptratus (II)	UA	LIV	20331	no import	LC			1977	C(100%)
				Serpe	entes					
Pythonidae	Morelia spilota (II)	CA	LIV	2027	first import after first export	LC			1975	C(96%); F(4%)
•	Python brongersmai (II)	LA	SKI	22500	no import	LC		✓	1975	C(100%)
				Testu	dines					
Testudinidae	Testudo hermanni (II)	RS	LIV	7700	first import after first export	NT		✓	1975	C(100%)
	,	UA	LIV	1776	first import after first export			✓	_	C(100%)
				Fis	h					<u> </u>
				Acipense	riformes					
Acipenseridae	Acipenser baerii (II)	HU	CAV	35	first import after first export	EN			1998	C(100%)
•	, , ,		EGL	310000	- · · ·					,
			LIV	10000	_					
	Acipenser gueldenstaedtii (II)	CN	CAV	300000	no import	CR		✓	1998	C(98.4%);
	, ,		LIV	10000	_					F(1.6%)
	Acipenser transmontanus (II)	IT	CAV	1278	first import after first export	LC			1998	C(100%)
	,		EGL	10000	,					- (,
	Huso huso (II)	CN	LIV	10000	no import	CR		✓	1998	C(50%); F(50%)
				Syngnath						
Syngnathidae	Hippocampus comes (II)	LK	LIV	22770	no import	VU			2004	C(99.1%); F(0.9%)
	Hippocampus reidi (II)	LK	BOD	122	first import after first export	DD			2004	C(98.8%);
			LIV	51924	, , , , , , , , , , , , , , , , , ,					F(0.8%); R(0.4%)

Table 5. Species/country combinations that met criteria vi) only.

Family	Species	Exporter	Term	Sum of trade (2011-15)	Criteria vi) no legal acquisition	IUCN Red List	Endemic	Neighbour range state	Year CITES listed	% trade by source
				Inverte	brates					
				Aran	ieae					
Theraphosidae	Brachypelma baumgarteni (II)	CA	LIV	1800	no import*	NE	✓		1995	C(50%); F(50%)
				Arhyncho	obdellida					
Hirudinidae	Hirudo verbana (II)	CA	LIV	6000	no import	NE_			1987	C(100%)
		RS	LIV	1500	no import	-		✓		F(100%)
				Cor	als					
				Sclera	ctinia					
Acroporidae	Acropora microclados (II)	MH	LIV	4980	no import	VU			1985	C(99.1%); F(0.9%)
Caryophylliidae	Physogyra lichtensteini (II)	FM	COR	20	no import	VU			1990	F(100%)
			LIV	1321						

3. Trade summary

To support decision making by the Animals Committee, an output of reported 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 20th April 2017 (see AC29 Inf. 3). This output is provided in Excel format, with filterable columns, to enable data exploration. Details of the data included in this summary trade output are provided in Table 6.

Table 6. Data included for the summary output of 'captive-produced' trade

	Data included			
CITES Trade Database report type	Gross exports; Direct trade only (re-exports are excluded)			
Current 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	2011-2015 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 Species¹⁵; 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 2011 and 2017; and 			
	 Species/country combinations that are subject to current Standing Committee recommendations to suspend trade. 			

31

¹² A full list and description of source and purpose codes is specified in Res. Conf. 12.3 (Rev. COP17).

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 2015 may appear lower than other years due to missing annual reports; 59% of Parties had submitted an annual report for 2015 that could be included for this analysis (as of 20th April 2017).

¹⁵ www.iucnredlist.org Data downloaded on 03rd April 2017.

¹⁶ Species+ is a database maintained by UNEP-WCMC and accessible from speciesplus.net.

¹⁷ Based only on the CITES trade data.

Annex A: ISO codes and country and territory names

<u>Annex</u>	A: ISO codes and country and territory na
Code	Name
AF	Afghanistan
AX	Åland Islands
AL	Albania
DZ	Algeria
AS	American Samoa
AD	Andorra
АО	Angola
Al	Anguilla
AQ	Antarctica
AG	Antigua and Barbuda
AR	Argentina
AM	Armenia
AW	Aruba
AU	Australia
AT	Austria
AZ	Azerbaijan
BS	Bahamas
ВН	Bahrain
BD	Bangladesh
ВВ	Barbados
BY	Belarus
BE	Belgium
BZ	Belize
BJ	Benin
ВМ	Bermuda
ВТ	Bhutan
ВО	Bolivia, Plurinational State of
BQ	Bonaire, Saint Eustatius and Saba
ВА	Bosnia and Herzegovina
BW	Botswana
BV	Bouvet Island
BR	Brazil
Ю	British Indian Ocean Territory
BN	Brunei Darussalam
BG	Bulgaria
BF	Burkina Faso
BI	Burundi

e <u>s</u>		
Code	Name	
KH	Cambodia	
СМ	Cameroon	
CA	Canada	
CV	Cape Verde	
KY	Cayman Islands	
CF	Central African Republic	
TD	Chad	
CL	Chile	
CN	China	
СХ	Christmas Island	
CC	Cocos (Keeling) Islands	
СО	Colombia	
KM	Comoros	
CG	Congo	
CK	Cook Islands	
CR	Costa Rica	
CI	Côte d'Ivoire	
HR	Croatia	
CU	Cuba	
CW	Curaçao	
CY	Cyprus	
CZ	Czech Republic	
KP	Democratic People's Republic of Korea	
CD	Democratic Republic of the Congo	
DK	Denmark	
DJ	Djibouti	
DM	Dominica	
DO	Dominican Republic	
EC	Ecuador	
EG	Egypt	
SV	El Salvador	
GQ	Equatorial Guinea	
ER	Eritrea	
EE	Estonia	
ET	Ethiopia	

Code	Name	Code	Name
FK	Falkland Islands (Malvinas) ¹⁸	IE	Ireland
FO	Faroe Islands	IM	Isle of Man
FJ	Fiji	IL IL	Israel
FI	Finland	IT	Italy
FR	France	JM	Jamaica
GF	French Guiana	JP	Japan
PF	French Polynesia	JE	Jersey
TF	French Southern Territories	JO	Jordan
GA	Gabon	KZ	Kazakhstan
GM	Gambia	KE	Kenya
GE	Georgia	KI	Kiribati
DE	Germany	KW	Kuwait
GH	Ghana	KG	Kyrgyzstan
GI	Gibraltar	LA	Lao People's Democratic Republic
GR	Greece	LV	Latvia
GL	Greenland	LB	Lebanon
GD	Grenada	LS	Lesotho
GP	Guadeloupe	LR	Liberia
GU	Guam	LY	Libyan Arab Jamahiriya
GT	Guatemala	LI	Liechtenstein
GG	Guernsey	LT	Lithuania
GN	Guinea	LU	Luxembourg
GW	Guinea-Bissau	MO	Macao
GY	Guyana	MG	Madagascar
HT	Haiti	MW	Malawi
НМ	Heard Island and McDonald Islands	MY	Malaysia
VA	Holy See	MV	Maldives
HN	Honduras	ML	Mali
HK	Hong Kong	MT	Malta
HU	Hungary	MH	Marshall Islands
IS	Iceland	MQ	Martinique
IN	India	MR	Mauritania
ID	Indonesia	MU	Mauritius
IR	Iran, Islamic Republic of	YT	Mayotte
IQ	Iraq	MX	Mexico

-

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
FM	Micronesia, Federated States of
MC	Monaco
MN	Mongolia
ME	Montenegro
MS	Montserrat
MA	Morocco
MZ	Mozambique
MM	Myanmar
NA	Namibia
NR	Nauru
NP	Nepal
NL	Netherlands
NC	New Caledonia
NZ	New Zealand
NI	Nicaragua
NE	Niger
NG	Nigeria
NU	Niue
NF	Norfolk Island
MP	Northern Mariana Islands
NO	Norway
ОМ	Oman
PK	Pakistan
PW	Palau
PA	Panama
PG	Papua New Guinea
PY	Paraguay
PE	Peru
PH	Philippines
PN	Pitcairn
PL	Poland
PT	Portugal
PR	Puerto Rico
QA	Qatar
KR	Republic of Korea
MD	Republic of Moldova
RE	Réunion

Code	Name
RO	Romania
RU	Russian Federation
RW	Rwanda
BL	Saint Barthelemy
SH	Saint Helena, Ascension and Tristan da Cunha
KN	Saint Kitts and Nevis
LC	Saint Lucia
MF	Saint Martin
PM	Saint Pierre and Miquelon
VC	Saint Vincent and the Grenadines
WS	Samoa
SM	San Marino
ST	Sao Tome and Principe
SA	Saudi Arabia
SN	Senegal
RS	Serbia
SC	Seychelles
SL	Sierra Leone
SG	Singapore
SX	Sint Maarten
SK	Slovakia
SI	Slovenia
SB	Solomon Islands
SO	Somalia
ZA	South Africa
GS	South Georgia and the South Sandwich Islands
SS	South Sudan
ES	Spain
LK	Sri Lanka
SD	Sudan
SR	Suriname
SJ	Svalbard and Jan Mayen
SZ	Swaziland
SE	Sweden
СН	Switzerland
SY	Syrian Arab Republic

Code	Name
TW	Taiwan, Province of China
TJ	Tajikistan
TH	Thailand
MK	The former Yugoslav Republic of Macedonia
TL	Timor-Leste
TG	Togo
TK	Tokelau
ТО	Tonga
TT	Trinidad and Tobago
TN	Tunisia
TR	Turkey
TM	Turkmenistan
TC	Turks and Caicos Islands
TV	Tuvalu
UG	Uganda
UA	Ukraine
AE	United Arab Emirates
GB	United Kingdom of Great Britain and Northern Ireland
TZ	United Republic of Tanzania
US	United States of America
UM	United States Minor Outlying Islands
UY	Uruguay
UZ	Uzbekistan
VU	Vanuatu
VE	Venezuela, Bolivarian Republic of
VN	Viet Nam
VG	Virgin Islands, British
VI	Virgin Islands, United States
WF	Wallis and Futuna Islands
EH	Western Sahara
YE	Yemen
ZM	Zambia
ZW	Zimbabwe

Annex B: Term codes and descriptions (see Notification to the Parties No. 2017/006)19

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
НОР	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
		Live animals and plants

¹⁹ A full list of "terms" (i.e. descriptions of specimens in trade) traded is available from https://trade.cites.org/cites trade guidelines/en-CITES Trade Database Guide.pdf

Trade term code	Description	Explanation
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