

July | 2015

Application of CITES Source Codes - Key 1

IUCN

1.0 Background and Introduction

The role of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is to regulate international trade in CITES-listed animals and plants to ensure their survival in the wild is not threatened. To achieve this, it is important that management systems used to produce specimens for international trade are clearly defined and understood, and the impact of each regime on wild populations is appropriately assessed. Each system should have an associated source code to be used on CITES permits and certificates, which informs Parties about the management system used to produce specimens and thus which provisions of the Convention apply. For example, an animal that is born in the wild has the source code “W” for wild. There are ten source codes currently used to signify the origin of specimens of CITES-listed species in trade (explained in detail in Section 2.0). However, a diverse range of management systems are used by Parties, many of which are tailored to suit the biological characteristics of a particular species or environment, and source codes are subject to varying interpretations by Parties.

To assist Parties with the task of correctly applying source codes for exports of CITES species, Decision 15.52(a) from the Fifteenth Meeting of the CITES Conference of the Parties (Doha, Qatar, 13-25 March 2010) requested the CITES Secretariat to:

“...contract an appropriate expert to prepare a guide to advise the Parties on the appropriate use of source codes...to be provided to the Animals and Plants Committee for review and comment”.

<http://www.cites.org/sites/default/files/eng/cop/16/doc/E-CoP16-48.pdf>

The CITES Secretariat in turn commissioned the IUCN to carry out this task. This report is the result of this work and aims to guide CITES Parties in the appropriate application of source codes for specimens entering international trade.

2.0 Current Source Codes and Production Systems

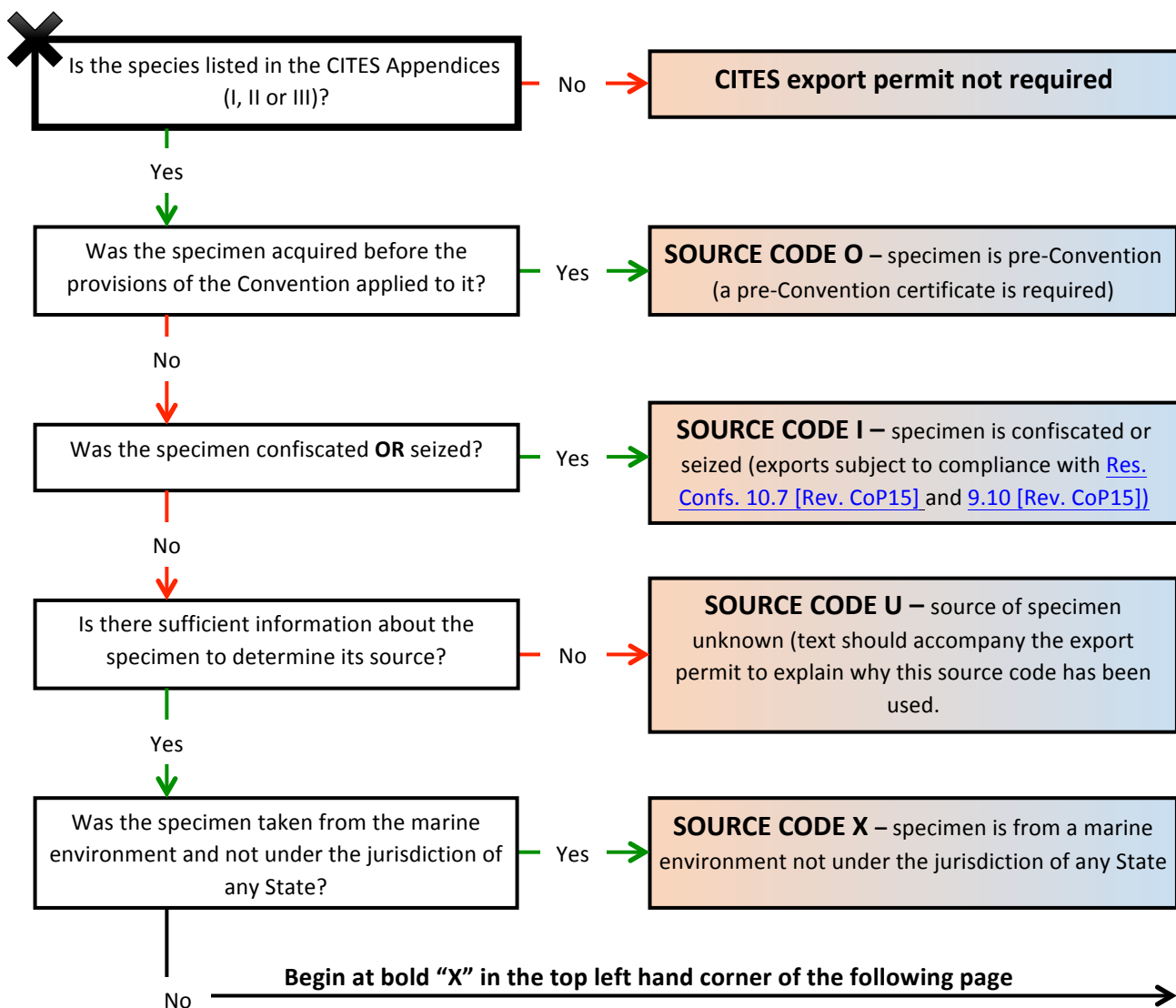
The source code definitions used here are taken from the CITES website. For further explanation of terms please see the CITES Glossary: <http://www.cites.org/eng/resources/terms/glossary.php>

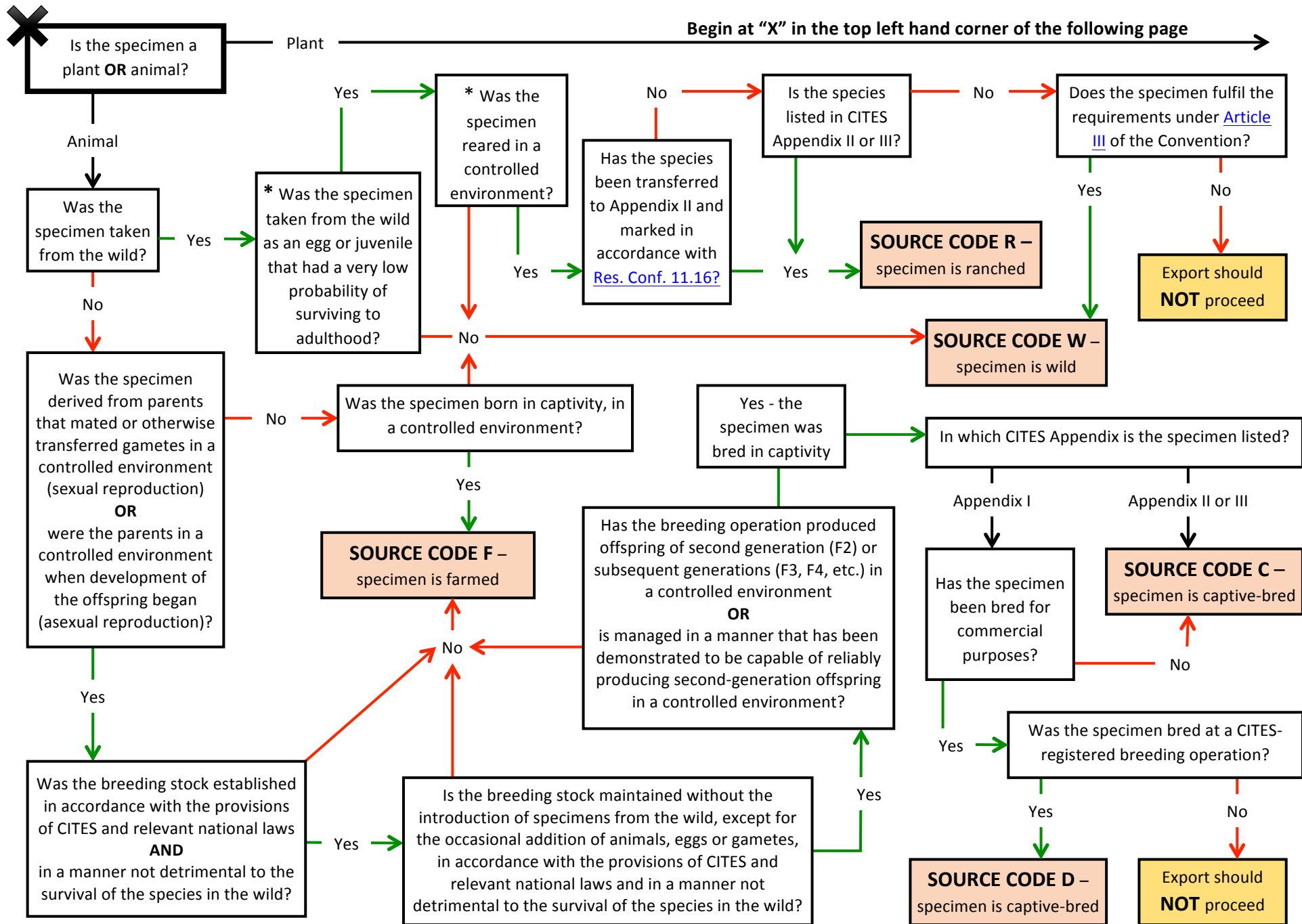
Source code	Description	CITES Appendix	Definition
W	Wild	I, II, III	Specimens taken from the wild.
X	Marine environment	I, II, III	Specimens taken from the marine environment not under the jurisdiction of any State.
R	Ranched animal	I, II, III	Specimens of animals reared in a controlled environment, taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.
D	Captive-bred animal or artificially propagated plant	I	Appendix-I animals bred in captivity for commercial purposes in operations included in the Secretariat's Register, in accordance with Resolution Conf. 12.10 (Rev. CoP15) , and Appendix-I plants artificially propagated for commercial purposes, as well as parts and derivatives thereof, exported under the provisions Article VII, paragraph 4 , of the Convention.
A	Artificially propagated plant	I, II, III	Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15) , as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III).
C	Bred in captivity	I, II, III	Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.) , as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5.
F	Born in captivity	I, II, III	Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of 'bred in captivity' in Resolution Conf. 10.16 (Rev.) , as well as parts and derivatives thereof.
U	Unknown	I, II, III	Source of the specimen is unknown, but must be justified.
I	Confiscated or seized	I, II, III	Specimens that have been confiscated or seized, this source code must be used in conjunction with another source code.
O	Pre-Convention	I, II, III	Specimen acquired before the provisions of the Convention applied to it. If a certificate is issued by a Management Authority, then no other permit or certificate is required under the Convention to authorise export, import or re-export.

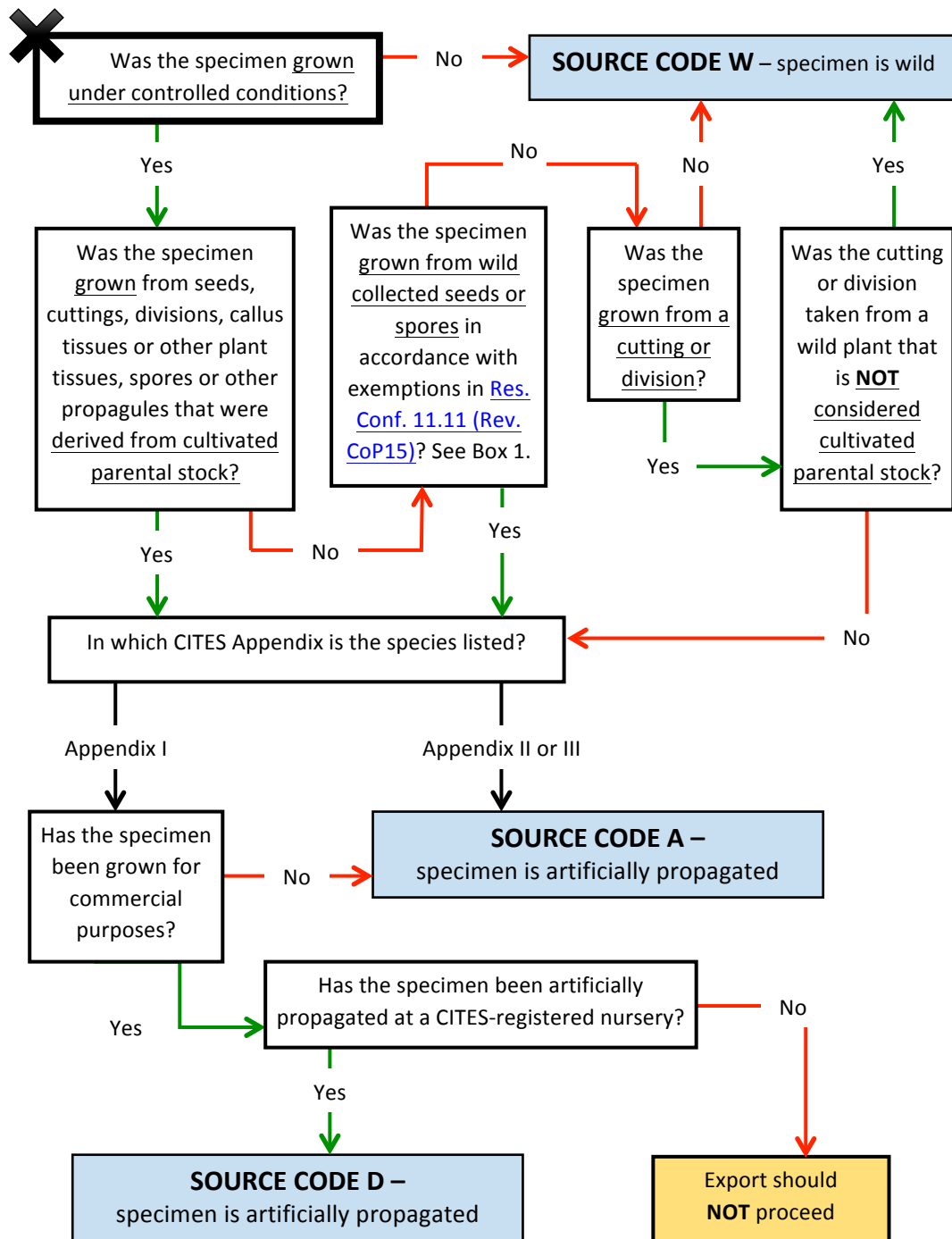
3.0 Source Code dichotomous key

A source code dichotomous key was developed to assist Parties in correctly applying source codes for exports of CITES-listed specimens. Instructions on how to use the key are as follows:

1. For international trade in both plants and animals, including their parts and derivatives, begin at the bold “**X**” below on this page.
2. For each question follow either the “yes” or “no” arrows to the next question box until finishing with a coloured box. The coloured boxes indicate the CITES source code that should be used when issuing permits and certificates for a specimen.
3. Some boxes feature an asterisk that direct the user to further guidance (found in Sections 4.0 to 7.0) for determining source codes.
4. If still unsure which source code should be used for a particular specimen, consult the Chairs of the CITES Animals and Plants Committees and/or the CITES Chief of Scientific Services.
5. Also note there are several exemptions and special provisions that apply to CITES-listed specimens – **links to exemptions and special provisions are provided in Section 7.0 of this guidance.**







Box 1. Exemptions for plants grown from seeds and spores (Resolution. Conf. 11.11 [Rev. CoP15])

An exception may be granted and specimens deemed to be artificially propagated if grown from wild-collected seeds or spores only if, for the taxon involved:

- a)
 - i) the establishment of a cultivated parental stock presents significant difficulties in practice because specimens take a long time to reach reproductive age, as for many tree species;
 - ii) the seeds or spores are collected from the wild and grown under controlled conditions within a range State, which must also be the country of origin of the seeds or spores;
 - iii) the relevant Management Authority of that range State has determined that the collection of seeds or spores was legal and consistent with relevant national laws for the protection and conservation of the species; and
 - iv) the relevant Scientific Authority of that range State has determined that:
 - A. collection of the seeds or spores was not detrimental to the survival of the species in the wild; and
 - B. allowing trade in such specimens has a positive effect on the conservation of wild populations;
- b) at a minimum, to comply with subparagraphs a) iv) A. and B. above:
 - i) collection of seeds or spores for this purpose is limited in such a manner such as to allow regeneration of the wild population;
 - ii) a portion of the plants produced under such circumstances is used to establish plantations to serve as cultivated parental stock in the future and become an additional source of seeds or spores and thus reduce or eliminate the need to collect seeds or spores from the wild; and
 - iii) a portion of the plants produced under such circumstances is used for replanting in the wild, to enhance recovery of existing populations or to re-establish populations that have been extirpated; and
- c) in the case of operations propagating Appendix-I species for commercial purposes under such conditions they are registered with the CITES Secretariat in accordance with Resolution Conf. 9.19 (Rev. CoP15) on Guidelines for the registration of nurseries exporting artificially propagated specimens of Appendix-I species.

4.0 Additional guidance with applying Source Code R

CITES defines the term “ranching” as ***the rearing in a controlled environment of animals taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood***. Although already amended to be more specific ([Resolution, Conf. 11.16 \[Rev. Cop15\]](#)), the ranching definition still contains several ambiguous terms that are open to interpretation and mis-declaration of source if not well defined. This section provides further information to assist Parties in correctly applying source code “R”.

What constitutes a “very low probability of surviving to adulthood”?

Probability of surviving to adulthood is the most fundamental consideration when determining whether a specimen is of a species that can be ranched (as the term is currently defined by the Parties to CITES). Probability of survival relates to a species’ life-history strategy. Some species are r-selected: they have large numbers of offspring, only a small proportion of which survive to become adults. Other species are k-selected: they have a small number of offspring, with each individual having a high likelihood of surviving to adulthood. For example, sea turtles, crocodilians, bony fishes and most invertebrates are r-selected and produce large numbers of eggs, only a small proportion of which survive to become mature adults. On the other hand, juveniles of species such as elephants and big cats are k-selected and have a relatively high likelihood of surviving to become adults. Thus, removing juveniles of k-selected species from the wild for ranching is likely to have greater impact on wild populations than removing r-selected species. A ranching production system is, therefore, only applicable to eggs and juveniles of species where the vast majority of these individuals in the wild die from natural causes (e.g., predation, disease, environmental, etc).

What constitutes ‘rearing in a controlled environment’?

For the purpose of correctly applying source code “R”, the term “rearing” should be related to the degree of growth and/or development a specimen has undergone while under captive management and not necessarily to a length of time spent in captivity. This distinction is important because of the diversity of life histories among taxa. For example, some invertebrates may be considered ranched after only two weeks in a controlled environment because of their rapid rates of development. Conversely, some reptiles (e.g., slow-growing tortoises) may require substantially longer periods under captive management before they can be considered ranched. When determining what constitutes rearing in a controlled environment, Management Authorities, in consultation with the Scientific Authority, should determine whether:

- 1) The ranching facility actively provides conditions necessary for the growth and well-being of the specimen (e.g., adequate shelter, food, veterinary care, etc), or
- 2) Simply holds the specimen pending export.

If the Management Authority considers that the facilities provide the necessary conditions for growth and development, then the specimens derived from such facilities are likely to be ranched. However, if no such conditions are provided, then the specimen is likely to be wild. However, it should be noted that “rearing in a controlled environment” does not imply that individual animals must be managed in captivity until reaching adulthood in order to satisfy the definition of “ranched”

Understanding the market

Another useful piece of information for guiding the correct application of CITES source code “R” is to understand the nature and characteristics of the market that the specimen has been produced to supply. For example, specimens exported live for the pet trade are usually required to be juveniles or neonates. In general these specimens have not undergone significant development in a controlled environment before export and thus are not ranched. Conversely, species that are exported for the meat or skin trade are usually required to be larger and thus are more likely to have been reared in a controlled environment for a prolonged period in order to achieve body sizes required by the prevailing market.

5.0 Additional assistance with applying source code C

1. When evaluating an application to export specimen(s) of CITES-listed species claimed by the applicant to have been bred in captivity, the following considerations will assist in verifying whether or not the specimen(s) fulfil the CITES requirements for being “bred-in-captivity”.
2. Having established that the specimen has been bred in captivity in accordance with the definition in [Resolution Conf. 10.16 \(Rev.\)](#), in order to ascribe the correct source code, it is necessary to determine:
 - i. in which Appendix the species is included; and
 - ii. the purpose of the export (commercial or non-commercial).
3. If the specimen(s) is an Appendix-I species that has been bred in captivity, and the export is for commercial purposes - consult the CITES website to determine whether or not the specimen(s) have been derived from a breeding operation included in the Secretariat's Register of breeding operations <http://www.cites.org/eng/common/reg/cb/summary.html>.
4. If there is no doubt that the specimen(s) have been derived from a CITES-registered breeding operation then APPLY source code D.
5. If doubt exists, and the applicant is unable to provide adequate evidence to prove that the specimen(s) originated from a CITES-registered operation, DO NOT APPLY source code D. In this circumstance, it will be necessary to determine whether or not the specimen(s) have actually been bred in captivity, harvested from the wild or derived from another source.
6. If no verifiable evidence exists that the specimen(s) in question have been bred in captivity in accordance with the definition in [Resolution Conf. 10.16 \(Rev.\)](#) then caution should be exercised and a more detailed evaluation undertaken.
7. In this respect, information on the following questions will assist in determining whether or not a breeding operation satisfies the definition of “bred in captivity” in [Resolution Conf. 10.16 \(Rev.\)](#), thereby enabling the Management Authority to make an informed decision on whether to apply source code C, F or reject the application:
 - i. Are there any licensed breeding operations for the species in question? If no licensed operation for the species exists, no source code should be used and the legality of the export should be questioned.
 - ii. What date was each breeding operation first licensed or registered to operate?
 - iii. How many permits have been issued, over what period of time, to collect specimens from the wild, and how many individuals were collected, in order to establish the captive population?
 - iv. What are the annual production quantities and, based on independent scientific advice on the biological characteristics of the species, are these quantities feasible for the species concerned?
 - v. What is the total number of individuals of the species kept by the breeding operation and how many breeding adult male and female animals comprise the parental stock?
 - vi. Have the facilities been inspected by officials from the Scientific and Management Authorities, and are inspection reports available?
8. In cases where there is doubt about the accuracy of a source code, the Management Authority of the importing country should, if necessary, consult the Scientific Authority of the exporting country (including other specialist scientific institutions) to determine whether the species is commonly bred in captivity within the jurisdiction of the Management Authority of the exporting country.

6.0 Relevant Definitions

These definitions are taken from the CITES website. For explanation of additional terms please see the CITES Glossary: <http://www.cites.org/eng/resources/terms/glossary.php>

Artificially propagated (for plants)	<p>Plant specimens that have been:</p> <ul style="list-style-type: none"> • Grown under controlled conditions; and • Grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that either are exempt from the provisions of the Convention or have been derived from cultivated parental stock; • Or, for agarwood-producing taxa, grown from seeds, seedlings, saplings, cuttings, grafting, marcoting/air-layering, divisions, plant tissues or other propagules that have been derived from wild or cultivated parental stocks, according to the definition of 'cultivated parental stock' in Resolution Conf. 11.11 (Rev. CoP15).
Bred in captivity (for animals)	<p>Animals born or otherwise produced in a controlled environment only if:</p> <ol style="list-style-type: none"> i) the parents mated or gametes were transferred in a controlled environment (if reproduction is sexual), or the parents were in a controlled environment when development of the offspring began (if reproduction is asexual). ii) The breeding stock, to the satisfaction of the competent government authorities of the exporting country: <ol style="list-style-type: none"> a) was established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild; b) is maintained without the introduction of specimens from the wild, except for the occasional addition of animals, eggs or gametes, in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild as advised by the Scientific Authority; <ol style="list-style-type: none"> 1. to prevent or alleviate deleterious inbreeding, with the magnitude of such addition determined by the need for new genetic material; 2. to dispose of confiscated animals in accordance with Resolution Conf. 10.7 (Rev. CoP15); or 3. exceptionally, for use as breeding stock; and c) <ol style="list-style-type: none"> 1. has produced offspring of second generation (F2) or subsequent generation (F3, F4, etc.) in a controlled environment; 2. is managed in a manner that has been demonstrated to be capable of reliably producing second-generation offspring in a controlled environment.
Breeding Stock	The ensemble of the animals used for reproduction in a captive-breeding operation
Controlled environment (for animals) / Controlled conditions (for plants)	<p>For animals: an environment that is manipulated for the purpose of producing a particular species, that has boundaries designed to prevent animals, eggs or gametes of the species from entering or leaving it, and the general characteristics of which may include but are not limited to: artificial housing; waste removal; health care; protection from predators; and artificially supplied food. For plants: a non-natural environment that is intensively manipulated by human intervention for the purpose of plant production. General characteristics of controlled conditions may include but are not limited to tillage, fertilization, weed and pest control, irrigation, or nursery operations such as potting, bedding or protection from weather.</p>
Cultivated parental stock (for plants)	<p>The ensemble of plants grown under controlled conditions that are used for reproduction, and which must have been to the satisfaction of the designated CITES authorities of the exporting country:</p> <ul style="list-style-type: none"> • established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild; and • maintained in sufficient quantities for propagation so as to minimize or eliminate the need for augmentation from the wild, with such augmentation occurring only as an exception and limited to the amount necessary to maintain the vigour and productivity of the cultivated parental stock.

7.0 Additional Guidance

Guidance on Permits and Certificates:

<http://www.cites.org/eng/disc/text.php#VI>

Guidance on Exemptions and Other Special Provisions Relating to Trade:

<http://www.cites.org/eng/disc/text.php#VII>

Guidance on Resolution Conf. 12.3 (Rev. CoP16) - Permits and Certificates:

<http://www.cites.org/eng/res/12/12-03R16.php>

Application of CITES Source Codes - Key 2

IUCN

Jessica A Lyons, Daniel J D Natusch, Robert W G Jenkins

1.0 Background and Introduction

The role of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is to regulate international trade in CITES-listed animals and plants to ensure their survival in the wild is not threatened. To achieve this, it is important that management systems used to produce specimens for international trade are clearly defined and understood, and the impact of each regime on wild populations is appropriately assessed. Each system should have an associated source code to be used on CITES permits and certificates, which informs Parties about the management system used to produce specimens and thus which provisions of the Convention apply. For example, an animal that is born in the wild has the source code “W” for wild. There are ten source codes currently used to signify the origin of specimens of CITES-listed species in trade (explained in detail in Section 2.0). However, a diverse range of management systems are used by Parties, many of which are tailored to suit the biological characteristics of a particular species or environment, and source codes are subject to varying interpretations by Parties.

To assist Parties with the task of correctly applying source codes for exports of CITES species, Decision 15.52(a) from the Fifteenth Meeting of the CITES Conference of the Parties (Doha, Qatar, 13-25 March 2010) requested the CITES Secretariat to:

“...contract an appropriate expert to prepare a guide to advise the Parties on the appropriate use of source codes...to be provided to the Animals and Plants Committee for review and comment”.

<http://www.cites.org/sites/default/files/eng/cop/16/doc/E-CoP16-48.pdf>

The CITES Secretariat in turn commissioned the IUCN to carry out this task. This report is the result of this work and aims to guide CITES Parties in the appropriate application of source codes for specimens entering international trade.

2.0 Current source codes and production systems

The source code definitions used here are taken from the CITES website. For further explanation of terms please see the CITES Glossary: <http://www.cites.org/eng/resources/terms/glossary.php>

Source code	Description	CITES Appendix	Definition
W	Wild	I, II, III	Specimens taken from the wild.
X	Marine environment	I, II, III	Specimens taken from “ <i>the marine environment not under the jurisdiction of any State</i> ”.
R	Ranched animal	I, II, III	Specimens of animals reared in a controlled environment, taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.
D	Captive-bred animal or artificially propagated plant	I	Appendix-I animals bred in captivity for commercial purposes in operations included in the Secretariat's Register, in accordance with Resolution Conf. 12.10 (Rev. CoP15) , and Appendix-I plants artificially propagated for commercial purposes, as well as parts and derivatives thereof, exported under the provisions Article VII, paragraph 4 , of the Convention.
A	Artificially propagated plant	I, II, III	Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP15) , as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in Appendix I that have been propagated artificially for non-commercial purposes and specimens of species included in Appendices II and III).
C	Bred in captivity	I, II, III	Animals bred in captivity in accordance with Resolution Conf. 10.16 (Rev.) , as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5.
F	Born in captivity	I, II, III	Animals born in captivity (F1 or subsequent generations) that do not fulfil the definition of ‘bred in captivity’ in Resolution Conf. 10.16 (Rev.) , as well as parts and derivatives thereof.
U	Unknown	I, II, III	Source of the specimen is unknown, but must be justified.
I	Confiscated or seized	I, II, III	Specimens that have been confiscated or seized, this source code must be used in conjunction with another source code.
O	Pre-Convention	I, II, III	Specimen acquired before the provisions of the Convention applied to it. If a certificate is issued by a Management Authority, then no other permit or certificate is required under the Convention to authorise export, import or re-export.

3.0 Source code dichotomous key

A source code dichotomous key was developed to assist Parties in correctly applying source codes for exports of CITES-listed specimens. Instructions on how to use the key are as follows:

1. For international trade in both plants and animals, including their parts and derivatives, begin at the bold “**question 1**” below on this page.
2. For each question answer either the “yes” or “no” to proceed to the next question box or until finishing with a source code.
3. Some boxes feature an asterisk that direct the user to further guidance (found in Sections 4.0 to 7.0) for determining source codes.
4. If still unsure which source code should be used for a particular specimen, consult the Chairs of the CITES Animals and Plants Committees and/or the CITES Chief of Scientific Services.
5. Also note there are several exemptions and special provisions that apply to CITES-listed specimens – **links to exemptions and special provisions are provided in Section 7.0 of this guidance.**

1. Is the species listed in the CITES Appendices (I, II or III)?

Yes go to question 2

No CITES export permit not required

2. Was the specimen acquired before the provisions of the Convention applied to it?

Yes SOURCE CODE O

No go to question 3

3. Was the animal confiscated OR seized? Exports subject to compliance with [Res. Confs. 10.7 \(Rev. CoP15\)](#) and [9.10 \(Rev. CoP15\)](#)

Yes SOURCE CODE I

No go to question 4

4. Is there sufficient information about the specimen to determine its source?

Yes go to question 5

No SOURCE CODE U

5. Was the specimen taken from the marine environment and not under the jurisdiction of any State?

Yes SOURCE CODE X

No go to question 6

6. Is the specimen a plant OR animal?

Animal go to question 7

Plant go to question 21

7. Was the specimen taken from the wild?

Yes go to question 8

No go to question 13

8. * Was the specimen taken from the wild as an egg or juvenile that had a very low probability of surviving to adulthood?

Yes go to question 9

No SOURCE CODE W

9. * Was the specimen reared in a controlled environment?

Yes go to question 10

No SOURCE CODE W

10. Has the specimen been transferred to Appendix II and marked in accordance with [Res. Conf. 11.16](#)?

Yes SOURCE CODE R

No go to question 11

11. Is the specimen listed in CITES Appendix II or III?

Yes SOURCE CODE R

No go to question 12

12. Does the specimen fulfil the requirements under [Article III](#) of the Convention?

Yes SOURCE CODE W

No Export should NOT proceed

13. Was the specimen derived from parents that mated or otherwise transferred gametes in a controlled environment (sexual reproduction) OR were the parents in a controlled environment when development of the offspring began (asexual reproduction)?

Yes go to question 15

No go to question 14

14. Was the specimen born in captivity, in a controlled environment?

Yes SOURCE CODE F

No SOURCE CODE W

15. Was the breeding stock established in accordance with the provisions of CITES and relevant national laws AND in a manner not detrimental to the survival of the species in the wild?

Yes go to question 16

No SOURCE CODE F

16. Is the breeding stock maintained without the introduction of specimens from the wild, except for the occasional addition of animals, eggs or gametes, in accordance with the provisions of CITES and relevant national laws AND in a manner not detrimental to the survival of the species in the wild?

Yes go to question 17

No SOURCE CODE F

17. Has the breeding stock produced offspring of second generation (F2) or subsequent generations (F3, F4, etc.) in a controlled environment OR is managed in a manner that has been demonstrated to be capable of reliably producing second-generation offspring in a controlled environment?

Yes, the specimen was bred in captivity go to question 18

No SOURCE CODE F

18. In which CITES Appendix is the specimen listed?

Appendix I go to question 19

Appendix II or III SOURCE CODE C

19. Has the specimen been bred for commercial purposes?

Yes go to question 20

No SOURCE CODE C

20. Was the specimen bred at a CITES-registered breeding operation?

Yes SOURCE CODE D

No Export should NOT proceed

21. Was the specimen grown under controlled conditions?

Yes go to question 21

No SOURCE CODE W

22. Was the specimen grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that were derived from cultivated stock?

Yes go to question 26

No go to question 23

23. Was the specimen grown from wild collected seeds or spores in accordance with exemptions in [Res. Conf. 11.11 \(Rev. CoP15\)](#)?

Yes go to question 26

No go to question 24

24. Was the specimen grown from a cutting or division?

Yes go to question 25

No SOURCE CODE W

25. Was the cutting or division taken from a wild plant that is NOT considered cultivated parental stock?

Yes SOURCE CODE W

No go to question 26

26. In which CITES Appendix is the species listed?

Appendix I go to question 27

Appendix II or III..... SOURCE CODE A

27. Has the specimen been grown for commercial purposes?

Yes go to question 28

No SOURCE CODE A

28. Has the specimen been artificially propagated at a CITES-registered nursery?

Yes SOURCE CODE D

No Export should NOT proceed

4.0 Additional guidance with applying Source Code R

CITES defines the term “*ranching*” as ***the rearing in a controlled environment of animals taken as eggs or juveniles from the wild, where they would otherwise have had a very low probability of surviving to adulthood.*** Although already amended to be more specific ([Resolution, Conf. 11.16 \[Rev. Cop15\]](#)), the ranching definition still contains several ambiguous terms that are open to interpretation and mis-declaration of source if not well defined. This section provides further information to assist Parties in correctly applying source code “R”.

What constitutes a “very low probability of surviving to adulthood”?

Probability of surviving to adulthood is the most fundamental consideration when determining whether a specimen is of a species that can be ranched (as the term is currently defined by the Parties to CITES). Probability of survival relates to a species’ life-history strategy. Some species are r-selected: they have large numbers of offspring, only a small proportion of which survive to become adults. Other species are k-selected: they have a small number of offspring, with each individual having a high likelihood of surviving to adulthood. For example, sea turtles, crocodilians, bony fishes and most invertebrates are r-selected and produce large numbers of eggs, only a small proportion of which survive to become mature adults. On the other hand, juveniles of species such as elephants and big cats are k-selected and have a relatively high likelihood of surviving to become adults. Thus, removing juveniles of k-selected species from the wild for ranching is likely to have greater impact on wild populations than removing r-selected species. A ranching production system is, therefore, only applicable to eggs and juveniles of species where the vast majority of these individuals in the wild die from natural causes (e.g., predation, disease, environmental, etc).

What constitutes ‘rearing in a controlled environment’?

For the purpose of correctly applying source code “R”, the term “rearing” should be related to the degree of growth and/or development a specimen has undergone while under captive management and not necessarily to a length of time spent in captivity. This distinction is important because of the diversity of life histories among taxa. For example, some invertebrates may be considered ranched after only two weeks in a controlled environment because of their rapid rates of development. Conversely, some reptiles (e.g., slow-growing tortoises) may require substantially longer periods under captive management before they can be considered ranched. When determining what constitutes rearing in a controlled environment, Management Authorities, in consultation with the Scientific Authority, should determine whether:

- 1) The ranching facility actively provides conditions necessary for the growth and well-being of the specimen (e.g., adequate shelter, food, veterinary care, etc), or
- 2) Simply holds the specimen pending export.

If the Management Authority considers that the facilities provide the necessary conditions for growth and development, then the specimens derived from such facilities are likely to be ranched. However, if no such conditions are provided, then the specimen is likely to be wild. However, it should be noted that “rearing in a controlled environment” does not imply that individual animals must be managed in captivity until reaching adulthood in order to satisfy the definition of “ranched”

Understanding the market

Another useful piece of information for guiding the correct application of CITES source code “R” is to understand the nature and characteristics of the market that the specimen has been produced to supply. For example, specimens exported live for the pet trade are usually required to be juveniles or neonates. In general these specimens have not undergone significant development in a controlled environment before export and thus are not ranched. Conversely, species that are exported for the meat or skin trade are usually required to be larger and thus are more likely to have been reared in a controlled environment for a prolonged period in order to achieve body sizes required by the prevailing market.

5.0 Additional assistance with applying source code C

1. When evaluating an application to export specimen(s) of CITES-listed species claimed by the applicant to have been bred in captivity, the following considerations will assist in verifying whether or not the specimen(s) fulfil the CITES requirements for being “bred-in-captivity”.
 2. Having established that the specimen has been bred in captivity in accordance with the definition in [Resolution Conf. 10.16 \(Rev.\)](#), in order to ascribe the correct source code, it is necessary to determine:
 - i. in which Appendix the species is included; and
 - ii. the purpose of the export (commercial or non-commercial).
 3. If the specimen(s) is an Appendix-I species that has been bred in captivity, and the export is for commercial purposes - consult the CITES website to determine whether or not the specimen(s) have been derived from a breeding operation included in the Secretariat's Register of breeding operations <http://www.cites.org/eng/common/reg/cb/summary.html>.
 4. If there is no doubt that the specimen(s) have been derived from a CITES-registered breeding operation then APPLY source code D.
 5. If doubt exists, and the applicant is unable to provide adequate evidence to prove that the specimen(s) originated from a CITES-registered operation, DO NOT APPLY source code D. In this circumstance, it will be necessary to determine whether or not the specimen(s) have actually been bred in captivity, harvested from the wild or derived from another source.
 6. If no verifiable evidence exists that the specimen(s) in question have been bred in captivity in accordance with the definition in [Resolution Conf. 10.16 \(Rev.\)](#) then caution should be exercised and a more detailed evaluation undertaken.
 7. In this respect, information on the following questions will assist in determining whether or not a breeding operation satisfies the definition of “bred in captivity” in [Resolution Conf. 10.16 \(Rev.\)](#), thereby enabling the Management Authority to make an informed decision on whether to apply source code C, F or reject the application:
 - i. Are there any licensed breeding operations for the species in question? If no licensed operation for the species exists, no source code should be used and the legality of the export should be questioned.
 - ii. What date was each breeding operation first licensed or registered to operate?
 - iii. How many permits have been issued, over what period of time, to collect specimens from the wild, and how many individuals were collected, in order to establish the captive population?
 - iv. What are the annual production quantities and, based on independent scientific advice on the biological characteristics of the species, are these quantities feasible for the species concerned?
 - v. What is the total number of individuals of the species kept by the breeding operation and how many breeding adult male and female animals comprise the parental stock?
 - vi. Have the facilities been inspected by officials from the Scientific and Management Authorities, and are inspection reports available?
 8. In cases where there is doubt about the accuracy of a source code, the Management Authority of the importing country should, if necessary, consult the Scientific Authority of the exporting country (including other specialist scientific institutions) to determine whether the species is commonly bred in captivity within the jurisdiction of the Management Authority of the exporting country.
-

6.0 Relevant Definitions

These definitions are taken from the CITES website. For explanation of additional terms please see the CITES Glossary: <http://www.cites.org/eng/resources/terms/glossary.php>

Artificially propagated (for plants)	<p>Plant specimens that have been:</p> <ul style="list-style-type: none"> • Grown under controlled conditions; and • Grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that either are exempt from the provisions of the Convention or have been derived from cultivated parental stock; • Or, for agarwood-producing taxa, grown from seeds, seedlings, saplings, cuttings, grafting, marcoting/air-layering, divisions, plant tissues or other propagules that have been derived from wild or cultivated parental stocks, according to the definition of 'cultivated parental stock' in Resolution Conf. 11.11 (Rev. CoP15).
Bred in captivity (for animals)	<p>Animals born or otherwise produced in a controlled environment only if:</p> <ol style="list-style-type: none"> i) the parents mated or gametes were transferred in a controlled environment (if reproduction is sexual), or the parents were in a controlled environment when development of the offspring began (if reproduction is asexual). ii) The breeding stock, to the satisfaction of the competent government authorities of the exporting country: <ol style="list-style-type: none"> a) was established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild; b) is maintained without the introduction of specimens from the wild, except for the occasional addition of animals, eggs or gametes, in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild as advised by the Scientific Authority; <ol style="list-style-type: none"> 1. to prevent or alleviate deleterious inbreeding, with the magnitude of such addition determined by the need for new genetic material; 2. to dispose of confiscated animals in accordance with Resolution Conf. 10.7 (Rev. CoP15); or 3. exceptionally, for use as breeding stock; and c) <ol style="list-style-type: none"> 1. has produced offspring of second generation (F2) or subsequent generation (F3, F4, etc.) in a controlled environment; 2. is managed in a manner that has been demonstrated to be capable of reliably producing second-generation offspring in a controlled environment.
Breeding Stock	<p>The ensemble of the animals used for reproduction in a captive-breeding operation</p>
Controlled environment (for animals) / Controlled conditions (for plants)	<p>For animals: an environment that is manipulated for the purpose of producing a particular species, that has boundaries designed to prevent animals, eggs or gametes of the species from entering or leaving it, and the general characteristics of which may include but are not limited to: artificial housing; waste removal; health care; protection from predators; and artificially supplied food. For plants: a non-natural environment that is intensively manipulated by human intervention for the purpose of plant production. General characteristics of controlled conditions may include but are not limited to tillage, fertilization, weed and pest control, irrigation, or nursery operations such as potting, bedding or protection from weather.</p>
Cultivated parental stock (for plants)	<p>The ensemble of plants grown under controlled conditions that are used for reproduction, and which must have been to the satisfaction of the designated CITES authorities of the exporting country:</p> <ul style="list-style-type: none"> • established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild; and • maintained in sufficient quantities for propagation so as to minimize or eliminate the need for augmentation from the wild, with such augmentation occurring only as an exception and limited to the amount necessary to maintain the vigour and productivity of the cultivated parental stock.

7.0 Additional Guidance

Guidance on Permits and Certificates:

<http://www.cites.org/eng/disc/text.php#VI>

Guidance on Exemptions and Other Special Provisions Relating to Trade:

<http://www.cites.org/eng/disc/text.php#VII>

Guidance on Resolution Conf. 12.3 (Rev. CoP16) - Permits and Certificates:

<http://www.cites.org/eng/res/12/12-03R16.php>
