GUIDANCE FOR INSPECTION OF CAPTIVE BREEDING AND RANCHING FACILITIES



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We also thank the many people in range States ranching and captive breeding mammals, birds, reptiles, fish and invertebrates who generously provided us information useful for completing this guidance. In addition, we thank staff from several CITES Management and Scientific Authorities who shared experiences about the challenges inherent in inspecting facilities for different taxa.

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SECTION 1. INTRODUCTION

Animals bred or raised in a controlled captive environment, independent of wild populations, except for the occasional acquisition of wild specimens to avoid inbreeding, can be traded without detriment to the wild population. In the case of threatened species, by reducing harvest pressure on wild populations, trade in captive-bred specimens can benefit the recovery and conservation of seriously depleted wild populations. In the same way, ranching of species for trade, whereby eggs or juveniles with a very low probability of survival in the wild are harvested and raised in captivity, is a biologically safe production system, which can also confer conservation benefits to wild populations.

But unless appropriate controls are applied to captive breeding and ranching operations, there is a real potential for these facilities to receive and launder specimens obtained illegally from the wild. In order to avoid this occurring, it is important that CITES Management Authorities and other relevant government regulatory agencies undertake regular and effective inspections of all operations under their jurisdiction that produce specimens of species for trade.

Officials responsible for inspecting a facility should be familiar with the species that is/are being managed in captivity by that facility. Inspections should be preceded by some background research on the biology of the species in question. For example, up do date information on the biology and status of many CITES-listed species can be found at <u>www.iucnredlist.org</u>. This is particularly important when undertaking an initial inspection of a facility or in cases where an established facility has altered its management or expanded its operation to include a new species. If possible, Management Authority personnel, when undertaking an inspection, should be accompanied by a representative of the Scientific Authority or an authorized, independent expert(s).

Inspections undertaken diligently will ensure that a facility is:

- Legally established under, and operates in full compliance with, relevant national legislation;
- Producing captive-bred specimens without regular augmentation of wild-caught specimens or acquisition of illegally obtained specimens; and
- Capable of producing specimens in numbers claimed as captive-bred or ranched.

Regular inspections of each facility, along with the numbers and types of species produced and exported by those facilities, should be conducted with due care and diligence. Inspections should be accompanied by accurate record-keeping by the Management Authority. This will enable the correct source code to be ascribed to CITES Export Permits, thereby facilitating undisrupted, legal and non-detrimental trade in captive-bred and/or ranched specimens of CITES-listed species that will be readily accepted by trading partners and not subject to disruptions in order to verify the accuracy of export documents.

This guidance is modeled on and complemented by a comprehensive inspection and guidance document for reptile captive breeding facilities in Southeast Asia, which was commissioned by the CITES Secretariat and completed by TRAFFIC (2013). It provides an example of how the general framework presented herein can be tailored to be more specific to production systems and species of interest. The reptile inspection manual is available here: https://cites.unia.es/cites/file.php/1/files/cb-captive-breeding-manual-en.pdf

SECTION 2. HOW TO USE THIS INSPECTION MANUAL

This manual guides users through the three steps of a facility inspection:

- Before inspection of the facility;
- During inspection of the facility; and
- After inspection of the facility.

Information gathered during these three steps should be compared to determine the veracity of a facility's claims of captive breeding and/or ranching. It is important that the responsible regulatory agency keep detailed and accurate records of inspections, as these are essential for long-term monitoring and assessing annual production levels and overall management performance.

For each step, detailed instructions and data collection forms are provided. Begin the procedure at STEP 1: BEFORE INSPECTION OF FACILITY. Ensure all tasks and steps are completed before proceeding to the next step.

STEP 1: BEFORE INSPECTION OF THE FACILITY

The aim of this guidance is to provide a general framework for national CITES Management and Scientific Authorities, and other relevant agencies, to assist in assessing facilities claiming to produce captive-bred and/or ranched specimens and evaluating their capacity to produce the numbers of specimens being traded each year. Regular and objective inspections of captive breeding and ranching facilities should ideally be undertaken annually as part of the Management Authority's work plan, and are important to ensure the statutory requirements of the Convention are fulfilled.

A. <u>Timing of inspections</u>

If an operation is licensed, or claims to ranch or breed a species in captivity, the principal purpose of regulatory inspections is to verify the authenticity and legality of the operation. It is very important, therefore, that inspections, whenever possible, coincide with key activities (or events) that characterise (or define) the management regime being practised (i.e. ranching and/or captive breeding).

Where a species is being ranched and/or bred in captivity, inspections should coincide with either:

- The collection and incubation of eggs and/or husbandry of wild-caught neonates delivered to the facility for incubation and/or rearing in the case of ranching operations; or
- On-site egg production and hatching and/or live birth in the case of closed-cycle captive breeding operations.

B. <u>Pre-inspection preparations (to be completed at least 24 hours prior an inspection)</u>

The following steps should be undertaken when preparing to inspect a facility that produces, keeps and exports specimens with the intent of exporting the offspring produced.

- 1. Examine existing records to ensure the facility is legally registered to keep, breed or ranch the species in question. Confirm there are no outstanding infringements that are being investigated by enforcement officials.
- 2. Determine, from past records and inspections, what kind of captive management is practised by the facility (e.g. captive breeding, ranching and/or wild harvest). Many facilities practise a combination of some (or all) of the foregoing management regimes. Inspections of these facilities may require more detailed scrutiny to ensure compliance with the more restrictive forms of management such as captive breeding and ranching. For newly established operations, the Management Authority, in the company of the Scientific Authority, should undertake inspections. These initial inspections should be rigorous, in order to establish detailed baseline information on the type of captive management practised and numbers of specimens held, against which subsequent inspection can be compared.
- 3. Examine existing records to determine what species are held by the facility, and what types of specimens (live animals, skins, etc.) and quantities (numbers or weights) have been exported in the past. Record this information in <u>FORM 1</u> (on page 9).
- 4. To estimate the number of specimens of different life-stages or year classes that should be present during the inspection, complete the <u>Production Capacity Calculator</u> (on page 5) based on information obtained during the last inspection or, if available, more recent information. Note that the number of specimens that can be present is the total production of successive years minus the numbers sold/exported by the facility and the average mortality during growth of the year classes. This is why it is important to be aware of, and have ready access to, previous information on inspections and the acquisition, sale and export of specimens.
- 5. Ensure that all the necessary inspection forms and writing instruments are taken on the inspection visit to avoid the need to commit important information to memory. If possible, a digital camera should be used to support written details of the inspection.
- 6. Ideally, two officials should undertake inspections to ensure objectivity and to avoid an individual official being compromised in the event that any discrepancy or anomaly is detected.

STEP 1 TASKS TO COMPLETE (tick boxes when completed):

- Confirm the facility owner or manager will be present at the facility for the inspection.
- Confirm the facility owner or manager is aware of what information is required and is willing to provide records of stock (such as copies of permits to keep, breeding records, etc.).
- Using information from previous inspections complete <u>FORM 1</u> (page 9) relating to which species the facility is registered to keep and the numbers of specimens held. If such information is not available, this should be treated as your initial inspection and <u>FORM 1</u> should be completed during the present visit.
- Complete the Production Capacity Calculator based on available information (page 5).
- Ensure you have writing material (pencil, notebook, ruler), previous inspection reports (if available) and digital camera (if available).

PRODUCTION CAPACITY CALCULATOR

This calculator allows inspectors to objectively estimate the mean number of individuals capable of being produced by a facility based on the number of adult (reproductive) females observed and the average number of reproductive events per annum. The calculation should be completed before the inspection (using information from previous inspections and official records on exports, etc.). The calculation should then be repeated using the number of stock observed during the current inspection. This calculation can be reversed (e.g., by using division), to determine the number of female stock required to meet annual reported production.

Begin at the red box and finish at the yellow box in the diagram below to complete the production capacity calculations before and after the inspection based on reported production by the facility. Explanatory text is provided below the diagram.

# breeding females Example: 50	
% females breeding per season Example: 0.7 (70%)	
# litters / clutches per year # offspring / eggs in litter / clutch Example: 2	
% surviving after two weeks Example: 0.8 (80%)	
# young per year Example: 11 at facility inspected Example: 11	.20

BREEDING PARAMETER	INFORMATION ENTERED INTO PRODUCTION CALCULATOR
# of breeding females	The total number of breeding females observed or claimed to be at the
	facility. Enter as a whole number. E.g., 50.
Mean % females breeding	The mean percentage (proportion) of females producing a clutch or litter
per season	per year. This information can be supplied by the facility, but should be
	confirmed using reliable external sources. E.g., enter 70% enter as 0.7.
Mean number of litters /	The mean number of litters or clutches produced by females per year.
clutches per year	This information can be supplied by the facility, but should be confirmed
	using reliable external sources. Enter as a whole number, such as 2.
Mean number of offspring	This information can be supplied by the facility, but should be confirmed
/ eggs in litter / clutch	using reliable external sources. Enter as a whole number, such as 20.
¹ Mean % surviving after	The mean number of eggs or live offspring produced that survive two
two weeks	weeks after hatching or birth. Enter as a percentage (of offspring
	surviving). E.g., Enter 80% as 0.8.
# of young per year at the	The estimated number of offspring the observed or claimed number of
facility inspected	female stock can produce each year.

STEP 2: DURING INSPECTION OF THE FACILITY

A. Meeting with the facility owner or manager

- 1. Upon arriving at the facility, meet with the facility owner or manager. Provide an explanation for the purpose of the inspection and reconfirm the types of information to be gathered.
- 2. Confirm with the facility owner or manager the information entered into data collection <u>FORM 1</u> based on information from prior inspections or trade records. Update the form as appropriate.
- 3. Be aware of the information contained in <u>FORM 1</u> regarding previous numbers of specimens and past trading activity of the facility. Together with information provided by the facility owner or manager, keep this in mind and begin to decide if it is corroborated by what is observed during the physical inspection.

B. Inspection of facility

- 1. Inspect the facility with owner and/or manager. When conducting an inspection be sure to take photos of specimens from all life-stages, enclosures or containment facilities, food storage and/or preparation areas, and incubation areas.
- 2. Complete the questions in <u>FORMS 2-4</u>, keeping in mind the production level of the facility that has been claimed by owner or manager.
- 3. Using the information gathered in <u>FORMS 2-4</u>, complete the <u>Determination of Source</u> (Page 7) to identify the correct source of the specimens at the facility.
- 4. After conducting a physical inspection of the captive stock and facilities, the Management Authority official and (ideally) representative(s) of the Scientific Authority should meet with the owner or manager of the operation to examine records and discuss any issue related to the inspection.

¹ % surviving after two weeks is an arbitrary time period in which animals of most taxa experience their highest mortality rates. We acknowledge the two-week period may be more applicable to some species than others and encourage inspectors to use their own taxon specific estimators where necessary.

TASKS TO COMPLETE:

Complete data collection <u>FORMS 2-4</u> (pages 10-12).

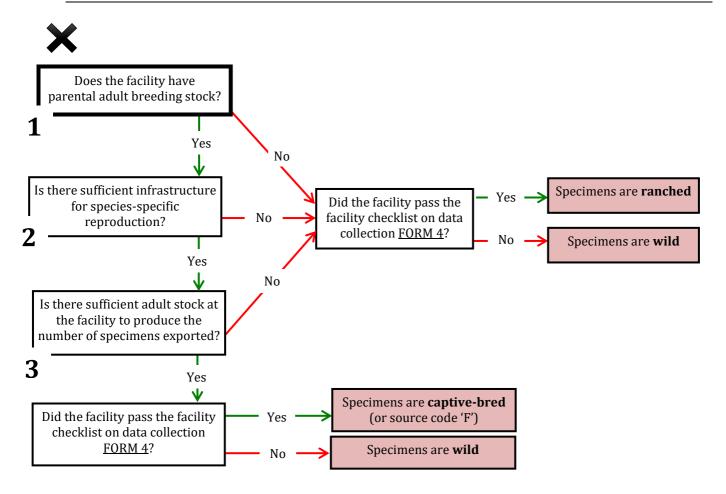
Complete <u>Determination of Source</u> (page 7).

NOTES ON DATA COLLECTION FORMS

- 1. The data collection forms accompanying this manual are to record important information about the facilities being inspected, and the numbers and types of specimens being ranched or bred by them. Knowledge accrued about facilities over time provides baseline information useful for future comparison and detection of potentially illicit activity. All data forms should be printed before each inspection.
- 2. <u>FORM 1</u> (page 9) should be filled out before facility inspections using information from previous visits. Inspectors can use this information to acquaint themselves with the facility before an inspection is undertaken and to provide a reference base for what a facility claims vs. what is observed.
- 3. <u>FORM 2</u> (page 10) aims to collect background information on the facility and should be filled out during inspections.
- 4. <u>FORM 3</u> (page 11) aims to collect detailed information on EACH species being bred or ranched at the facility and should be filled out during the inspection.
- 5. <u>FORM 4</u> (page 12) should be partially filled out during the inspection and completed afterwards. Use the form to make a final determination about the facility by scoring a set of questions and comparing them to Table 2 on Page 14 of these guidelines. FORM 4 will also help determine the appropriate source code for specimens traded by facility.

DETERMINATION OF SOURCE

- 1. To determine the source of specimens traded by a facility, ask the manager to explain the production process and record the information provided in the section on ranching and captive breeding in <u>FORM 3</u>.
- 2. To independently verify the source of specimens, complete the Source chart below, beginning at the black X and answering each question with a *"Yes"* or *"No"* before proceeding.
- 3. The Source chart should be used in conjunction with the results of the facility checklist provided in <u>FORM 4</u>.
- 4. Explanatory text is provided below the Source chart to assist with answering each question.



EXPLANATORY NOTES FOR QUESTIONS 1 – 3

- 1. A captive population of adult specimens is an essential feature of any captive-breeding operation. Adult specimens must be marked appropriately {mandatory for Appendix-I listed species [Resolution Conf. 12.10 (Rev. CoP15)]} and should be housed in secure enclosures or containment facilities that are separated from the general captive population of juvenile rearing stock. However, separating adults from other stock may not be applicable for all species (e.g., social birds and some mammals).
- 2. Enclosures or containment facilities may contain sand, mud or debris for egg laying by crocodiles or turtles, nest boxes for birds, snakes and small mammals, burrows for mammals or monitor lizards, or suitable vegetation and substrate for aquarium fish, amphibians and invertebrates. For some species, notably large mammals (some ungulates, bears, tigers), there should be sufficient facilities and enclosures for pregnant or nursing females to be separated from the general adult population. Finally, in some cases, specific facilities for egg incubation, or lab and vet facilities to induce spawning (e.g., fish), may also be required. For species that may not require specific facilities for reproduction, the answer should be "Yes".
- 3. Using the <u>Production Capacity Calculator</u> (page 5), Management Authority officials, in consultation with Scientific Authority representatives, should determine whether the observed numbers of adults are capable of producing the numbers of eggs and/or neonates observed or reported. Where possible the total number of reproductive females should be recorded in order to provide a more accurate estimate of annual production levels.

DATA COLLECTION FORM

BACKGROUND INFORMATION FROM MOST RECENT INSPECTION

(To be compiled by the Management Authority from its records)

Date of inspection: Name of senior inspecting officer: _____

Facility name:

Date of last inspection:

Which species is the facility registered to produce for export:

i	i		i	
Scientific Name	Total number of specimens at last inspection	# breeding adults (where possible identify # breeding females) at last inspection	# specimens sold / exported since the last inspection	*Source Code As ascribed for previous export permits

*Source codes definitions Visit <u>www.cites.org</u> for detailed definitions

R – wild collected eggs or juveniles raised in captivity.

C – Appendix II listed species bred in captivity for commercial purposes or

Appendix I listed species bred in captivity for non-commercial purposes.

D – Appendix I listed species bred in captivity for commercial purposes.

Next step: Complete Form 2 on the facility.

GENERAL INFORMATION ON THE FACILITY

Date of inspection:	Name of senior inspecting officer:
Facility name:	
Name and position(s) of	of all inspecting officer(s) present:
1.	
2.	
Type of inspection:	Date of last inspection:
	Routine
	Follow-up (in cases where discrepancies or anomalies, detected during a previous inspection, remain outstanding)
Facility trading name(s	s):
Facility owner(s):	
Facility address and co	ntact information:
Year the facility was es	stablished:
How many staff are cu	rrently employed at the facility?
Full time	Part time
Name and job title of f	acility staff accompanying inspecting officer(s):
Does the operation ha	ve access to professional veterinary services? Yes No
If yes, what is the nam	e and address of vet?
Does this company kee	ep animals at any other location(s)? Yes No
If yes, where?	
lf yes, make arrangem	nents to inspect the location(s) as soon as possible

Next step: Complete Form 3 on the specific species.

2

SPECIES INFORMATION (to be completed separately for each species held at the facility)

Date of inspection: Name of senior	inspecting officer:
Facility name: Spec	ies :
*Date species first acquired? Source an of initial sof initial stock, and sexes, if known	nd life-stage stock? Males? Females?
*Have additional animals been obtained since you acquire	d the initial stock? If so, from where?
Do you BREED this species? Yes No	Do you <u>RANCH</u> this species?
When did you start breeding?	Yes No
# litters/clutches per year?	What life stage(s) is harvested?
<pre># offspring/eggs in litter/clutch? # produced in the previous year?</pre>	# harvested in the previous year?
Adult breeding stock	Facility Inspector count information <i>(where possible)</i>
Number of adults present?	
Number of males present?	
Number of females?	
What % of females breed each year?	
What do you feed adult animals?	
REARING STOCK (CAPTIVE BRED AND RANCHED COMBINED)	Facility Inspector count information <i>(where possible)</i>
Number of juveniles present?	
Age at sexual maturity (years)?	
Size or mass at sexual maturity (cm or g)?	
Size at sale (cm or g)	
What percentage of juveniles survive beyond 2 weeks? Includes mortalities of eggs that didn't hatch.	
What do you feed rearing and juvenile animals?	

FACILITY CHECKLIST (to be completed for each species using information obtained during the inspection,

	or each species using injormation obtained	ruunng	f the inspecti	011)
Date of inspection:	Name of senior inspecting officer:			
Facility name:	Species name:			
FACILITY SCORE TALLY AND FINAL DET	ERMINATION			
Place a tick (\checkmark) in the check box that most accurc question. Each check box is allocated a score. Gre	ately reflects the facility for each by boxes should not be ticked.			
Once completed, sum the scores to determine the score to make a determination about the status c	r final score for the facility. Use this If the facility at the bottom of the page.			
Explanatory text for each question is provide on Page 13 of the guidelines document.		Score		
General		0	1	2
A. Is the facility legally registered to keep and during the inspection?	d breed all of the species observed	No	Yes	
B. Was unusual activity observed during the	inspection?	Yes	No	
Facilities				
C. Does the facility have housing/containmer and life stages in question?	nt facilities suitable for the species	No	Yes	
D. Are housing/containment facilities adequa annual production levels and stocks of specir	-	No		Yes
E. Does the facility keep up-to-date records c exported?	on specimens of the species being	No	Yes	
F. Does the operation have suitable facilities and/or preparation of appropriate food for s		No		Yes
Species-specific				
G. Does the facility's production output mate output (from the number of parental stock; #	•	No		Yes
H. Do the specimens in the facility show any (see explanatory notes)?	signs indicative of wild origin	Yes	No	
I. Is the species known to be difficult to breed captivity?	d and/or maintain in	Yes	No	
J. Has the facility been established long enou species in the quantities and sizes claimed?	gh to produce the	No	Yes	
Appendix I Species K. For species listed in Appendix I, do the par offspring have a unique and permanent iden	-	No	Yes	
	Final Score			
Final determination:	Fillal Score			
Refer to Page 14 of the guidelines for informa	ation Satisfactory			
about making a final determination for a faci	Follow-up inspection	n requ	iired	
	Unsatisfactory			

Table 1. Explanatory text to guide completion of the questions inFORM 4.

 A. Facilities should have permits to keep the species observed during the inspection. This s include species not bred for commercial export, but kept privately. B. Unusual activity observed during an inspection should be noted. This may include, but not to: denial of inspection officer to an area of the facility (that may be used for housing spec permitted in trade, or the facility may not have a license to keep); evidence of shipments of not permitted in trade; and the manager or owner of the facility not being able to provide in about specimens kept at the facility, or know where to locate this information. C. Suitable enclosures or containment facilities should: Prevent specimens from escaping into the wild; Prevent specimens entering the facility and enclosures or containment facilities to captive-bred specimens; and Provide necessary amenities for species-specific growth and development. Suitable species-specific enclosures or containment facilities may include wire cages, gla ponds (e.g., for turtles and fish), terrariums (e.g., for reptiles), aviaries (e.g., for birds), fenced paddocks (e.g., for mammals). There may also be specific construction materials and height requirements depending on the species. Adequate structures and facilities should b in every enclosure for healthy growth of the animals, such as food and water bowls or trays hiding and basking areas, appropriate wet and dry areas for amphibious species illumination and temperature, etc. D. Suitable enclosures or containment facilities usually keep records of all stock, general practices and treatment of any diseases or injured specimens. Other records may be kept on: Mortality and disposal of dead specimens; Annual production of stock (neonates, eggs, hatching percentages, etc.) Number and source of parental stock; and Age and identification (e.g., band or tag numbers, transponders, distinguishing marks) of Records may be as simple as hand-written notes in diaries to elaborate online studob	be limited cimens not specimens iformation o mix with ss aquaria, yards and minimum e available s, adequate s, suitable
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indicative of possible suspicious activity. Inspectors should use the Production Capacity (page 5) provided to determine probable output. This question does not relate to ranchin but must be addressed where a facilities claims to undertake any form breeding in a environment.	capacity is Calculator g facilities,
 H. Specimens taken from the wild often exhibit symptoms not found in captive specimens, water inspectors to potentially false claims of captive breeding. Such indicators may includ High levels of stress (mammals pacing within cages, raw noses of snakes, high aggression or passivity and torpor); Physical damage (scars on skin of all species, broken turtle carapaces, wounds fro and High parasite loads (ticks on snakes, lizards and turtles, lice on mammals and birds) or sk problems (bald/bare areas, scale abnormalities, shell rot, etc.). 	e: 1 levels of m snares);
I. Facilities claiming to produce large numbers of specimens of species known to be difficu	
and/or maintain in captivity may warrant greater scrutiny than facilities raising easy to keJ.High volumes of trade in specimens from recently established facilities may indicate	suspicious
activity. The facility should be established long enough to produce offspring (if cla specimens are captive-bred). Examples when this may be the case include species that gr or take many years to reach maturity, and species producing few offspring per litter of clu	ow slowly
K. CITES Appendix I specimens are required to be marked with a permanent identific Resolution Conf. 12.10 (Rev. CoP15)). Non-compliance with this requirement may signal o in which the facility is not complying.	

STEP 3: AFTER INSPECTION OF THE FACILITY

- 1. Once the inspection is finished, re-complete the <u>Production Capacity Calculator</u> (page 5) to determine the approximate number of specimens that should be present at the facility, or capable of being produced, based on the updated information gathered during the inspection.
- 2. Using the Production Capacity Calculator (page 5), and the information gathered during the inspection and entered into the facility checklist in <u>FORM 4</u>, determine the sum of scores for the facility.
- 3. Using the sum of scores for the facility and guidance in Table 2 below, determine the likelihood the facility is breeding and/or ranching the specimens in captivity.
- 4. In some instances (e.g., discrepancies between estimated and observed numbers of offspring, or lack of suitable breeding infrastructure) it may be necessary to undertake more intensive, follow-up inspections in the company of a representative of the Scientific Authority (or other suitably qualified official) in order to more accurately assess breeding and/or husbandry performance by scrutinizing records more closely.

Table 2. Decision-making guidance based on the sum of scores on inspection FORM 4.

Points	Guidance for determining the likelihood of compliance with CITES
<8	It is <u>unlikely</u> that the facility is breeding or ranching the number of specimens claimed. Management Authorities should monitor the facilities' operations closely. In such cases further, more rigorous, inspections should be undertaken with the aid of additional (appropriate) expertise. Caution should be exercised when issuing permits for export. If additional inspections confirm illegal activity, the matter should be referred to enforcement officials for appropriate action.
8 - 11	It is <u>likely</u> that the species in question is being ranched (apply source code R). In the case of operations claiming to breed the species in captivity, some doubt remains on the appropriateness of using source code C or D. Caution should be exercised when issuing permits. However, this score may simply reflect sub-optimal management, and additional data from more rigorous inspections are needed to determine production capacity with confidence.
> 11	There is a <u>very high probability</u> that the facility is ranching or breeding animals in captivity.