



**A BRIEFING PAPER ON
MARKING TECHNIQUES USED IN
THE CONTROL OF WILDLIFE
IN THE EUROPEAN UNION**

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Front cover photograph:

Plastic breeding tag and Swiss ring on Waldrap
Geronticus eremita.

Photograph credit: Robert Quest

A Briefing Paper on Marking Techniques used in the control of wildlife in the European Union

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Introduction

The European Union (EU) is one of the largest and most diverse markets for wildlife and wildlife products in the world. Wildlife markets in the EU involve many thousands of species and change constantly, depending on many factors such as fashion, value, availability and regulations or restrictive measures taken to control trade in certain species.

Due to the absence of systematic border controls between EU Member States, the monitoring and control of wildlife trade in the EU is important, especially with regard to detecting illegal activities. Adequate monitoring and control requires expertise and competencies in a range of areas. For example, tools and techniques are needed to allow for the adequate identification of species in trade, their source (e.g. wild, captive bred or artificially propagated) and to identify individual specimens.

This briefing paper presents a compilation and analysis of marking techniques currently in use in the 25 EU Member States, as well as a short description of identification and labelling techniques applicable to wildlife specimens. The aim of this briefing paper is to facilitate the exchange of information and expertise between EU Member States, strengthen the cooperation of the different agencies involved in monitoring and control of trade in wildlife in the EU and thereby increase their efficiency, particularly in Member States where little information on these topics is currently available.

This briefing paper has been prepared by TRAFFIC Europe for the European Commission under Service Contract 07.0402/2005/399949/MAR/E2. This briefing paper builds on a project on marking techniques conducted by TRAFFIC Europe in 2003 for the 15 Member States (at the time) and presented at the 8th Enforcement Group of the European Union (18th September 2003) for discussion by a Sub-group on Identification and Marking (document EG 8-6-2).

The aim of this briefing paper is to:

- Provide an overview of information about existing marking, labelling and identification techniques for wildlife specimens;
- Provide Member States with up-to-date information on the legal requirements for marking under CITES-the Convention on International Trade in Endangered Species of Fauna and Flora and the EC Wildlife Trade Regulations;
- Collate information on marking techniques used and/or legally adopted (or subject to specific requirements) in the 25 EU Member States;
- Provide an overview and analysis of the range of marking techniques being used in the EU;
- Highlight areas in need of improvement and recommendation to improve monitoring and tracking of wildlife in the EU;
- Make this information readily available to all EU Member States' Management as well as Scientific and enforcement authorities;

Methodology

The following sources of information were used to compile the information on wildlife monitoring techniques:

- Literature reviews, including on the Internet;
- Telephone and e-mail interviews with organisations and people engaged in wildlife trade monitoring.

The following sources of information were used to compile the table on marking techniques in use in the 25 EU Member States (Annex 1):

- CITES Authorities (CITES Secretariat and Management Authorities in the EU) and Enforcement Authorities (police, customs, inspection services, etc.), were contacted between April and June 2006 for information about marking techniques in use in their respective countries;
- The CITES Biennial reports of the 25 EU Member States;
- Anon. (2003) A Briefing Paper on five EU inventories: Forensics, Marking, Rescue centres, ID Experts, ID Manuals. Confidential report prepared by TRAFFIC Europe for the European Union's 8th Enforcement Group Meeting;
- Kecse-Nagy, K.; Papp, D.; Knapp, A.; and Theile, S. (2006) *Wildlife Trade in Central and Eastern Europe: A review of the implementation and enforcement of CITES in 15 countries*. TRAFFIC Europe Report, Budapest, Hungary;
- Parry-Jones, R. & Knapp, A. (eds.) (2005) *Country profiles compiled for the EU Wildlife Trade Enforcement Co-ordination Workshop, 25-27 October 2005, UK*. Defra, London, UK.

Description of marking, labelling and identification techniques used in wildlife trade

This section provides information on the most common techniques available around the world for use in marking, labelling and identification of specimens listed in the Annexes to the EC Wildlife Trade Regulation (*Council Regulation (EC) No. 338/97* of 9 December 1996 and the *Commission Regulation (EC) No. 865/2006* of 4 May 2006. For each technique, where possible, advantages and disadvantages of the techniques and considerations for its use for all wildlife species are included.

The techniques described below have been classified into three categories:

- Marking: techniques used by traders, owners and authorities for marking wildlife specimens;
- Labelling: labels used by traders and authorities for caviar packaging;
- Identification: forensic techniques used by law enforcement officers for identification during wildlife crime investigations.

Marking

Temporary marks (paints, dyes, fluorescent powders, radio-isotope marking, hair/fur removal, adhesive tapes, etc.) are not presented here because they currently have a very limited interest in the context of wildlife trade control.

Microchip transponder

Microchip or passive integrated transponders are small electronic units encased in biologically inert glass capsules. With a diameter of 2 mm and length of 12-32 mm, passive transponders are suitable for use in and marking on a wide variety of animals. The transponder stores a permanent, unique identification number, which can only be read but not modified. External readers or scanners activate the transponder by transmitting low frequency radio waves. The transponder then responds by emitting the stored number. It can be read through soft and hard tissue, salt and fresh water, glass, wood and plastic, but is difficult to read through metal. It is worth noting that some people refer to these 'passive integrated transponders' as either 'microchip transponders', 'microchips' or 'transponders' and in this report the term microchip transponder is used¹.

Many valuable and endangered reptiles and mammals are now microchipped. The microchip implant site for most mammals is the back of the neck, although the chips do sometimes move within the body. Tortoises are usually microchipped on the thigh, though this can only be carried out when the shell size is over 10 cm in length. Large monitor lizards and crocodylians are often chipped in the tail (Pendry *et al.*, 2006).

Some practical problems with the use of microchip transponders include the following:

- It is time-consuming and can be difficult or dangerous (e.g. in the case of large carnivores) to catch and handle an animal in order to read its microchip transponder. In such cases an animal handler/keeper or vet may be required to assist the inspection services;
- Because the location of the microchip transponder is not prescribed under the EC Wildlife Trade Regulations, it may be difficult and time-consuming to scan large animals in order to find the transponder, and it may be dangerous to get so close to certain animals;
- There are welfare implications when marking an animal with a microchip transponder, as it requires appropriate placement in regard of the physical and behavioural properties for the specimens;

¹ However, in the Annexes, Member States use different expressions to refer to microchip transponders

- Microchip transponders have been reported to stop working and in such cases, it is not possible to find the transponder and hence to know whether the animal is legal or not without resorting to other methods such as DNA analysis of the specimen;
- Many readers/scanners only work with microchips from the same manufacturer. Although some scanners can detect the presence of a microchip from another system, they cannot de-code it. However, as the technology is evolving constantly, this constraint may no longer be relevant in the future.

Bird rings

Bird ringing is the scientific method used to mark wild birds by applying a ring bearing an individual identification number around the bird's leg, or around the bird's neck for selected larger birds such as swans and geese. Rings used to mark birds include closed rings, cable ties, Swiss rings and split metal rings. Coloured plastic rings are sometimes used to complement metal rings and may be combined to form a colour code for a specific individual. Different sized rings are used for different species of bird.

- Closed rings are formed from a single continuous, unbroken band of metal. These rings can be used to ring birds soon after hatching. The ring is passed over the hatchling's foot and as the bird grows, it is not possible to remove it. Split rings can be used to mark birds that are too old to be fitted with a closed ring.
- Split rings are available in a number of sizes and are fitted by placing the ring around the bird's leg and crimping it shut with a pair of special pliers.
- Cable-ties are now made of black plastic (although there may still be some old red ones in use). A saw-toothed strip is passed through a locking box, which cannot then be opened unless it is cut off. The part forming the ring round the bird's leg is usually covered by clear plastic sleeving.
- Swiss rings are a relatively new type of split metal ring, which have advantages over other split rings and cable-ties. The rings are available in a number of sizes and come in two parts: the split rings and a sealing pin. Swiss rings are made from silver-coloured metal. To fit, the split ring is placed around the leg of the bird and closed using special pliers. Once closed, the sealing pin is then passed through two holes on either side of the split and sealed using special pliers (Pendry *et al.*, 2006).

Closed rings are vulnerable to fraud as they can be removed from a dead bird and put onto the leg of a wild-taken chick, in order to disguise it as a captive-bred bird. With some of the smaller birds, closed rings can be physically forced over an adult bird's foot if damage to the foot is of no concern to the offender. With small birds, such as finches, closed rings have been tampered with and expanded to allow them to be fitted to wild-caught birds which are then declared as captive bred. Closed rings should be checked for any signs of tampering, particularly with small rings, but this can be difficult to spot to the untrained eye. Cable-ties are also open to abuse (Pendry *et al.*, 2006).

Documentation (photo identification, drawings, descriptions, passports)

Although not technically a marking method, identification of animals by their natural markings is commonly used in wildlife research and inventory, and is becoming increasingly popular for identifying individual specimens. Photographic, drawing and description recordings are used to identify individual specimens in cases where the animals have certain distinguishing features, such as the whisker spots on the nose of a lion. This method is therefore only reliable for certain species. Advances in photographic technology have allowed accurate representation of identifying characteristics without the laborious job of sketching each animal.

For the following Annex A-listed reptile species, research has demonstrated that photo documentation can be used successfully to identify adult specimens: Radiated Tortoise *Geochelone radiata*, Hermann's Tortoise *Testudo hermanni*, Spur-thighed Tortoise *Testudo graeca*, Marginated Tortoise *Testudo marginata*, Malagasy Ground Boa *Acrantophis madagascariensis*, Duméril's Boa *Acrantophis dumerili* and Madagascar

Tree Boa *Sanzinia madagascariensis* (Bender, 2001). Photo identification of young animals is more problematic as their characteristics may change substantially between birth and adulthood, which means that documentation must be repeated to ensure continuous tracking of the changes in characteristics. Bender *et al.* (2007) have studied this problem and established standards for photo documentation for the genus *Testudo*.

Polaroid and digital cameras may decrease handling times, and help avoid observer bias, but the material is still relatively expensive. Advances in computer technology are aiding the development of systems wherein a digital photograph can be loaded into a programme that can code identifying characters very quickly, reducing labour costs and observer bias.

An advantage of photo documentation over microchip transponders is that the animal can often be compared to the photo identification, drawing or description without the need to catch it. However, allowing documentation to be used in place of some form of marking, without specifying any methodology or criteria (e.g. traits of the animal that should be included), makes the use of documentation vulnerable to abuse. In addition, to avoid people using a permit and photo documentation for an animal other than the one for which the documents were delivered, all Member States would need to set up a digital image storage system attached to the permit/licence issuing system and front-line enforcers would have to be able to access this system. Such a system would also benefit from a function that reminds the licensing authority when a photo in a document is about to expire and require renewing (e.g. in the case of juvenile animals that change as they grows older) so that they can contact the holder.

The pet passport² established under *EC Regulation No. 998/2003 on the animal health requirements for the non-commercial movement of pet animals* is another method of documentation that can be used for wildlife species and that can be combined with other marking methods e.g. rings or tattoos. The pet passport is a standardized document (i.e. format, sequences of the headings, numbering of pages and languages), which must accompany animals when travelling within the European Community, and into the Community from non-EU countries. It includes sections on contact details of the owner, description of animals (i.e. picture, species, breed, sex, etc.), identification of the animals (i.e. microchip number, date of microchipping, location of microchip, tattoo number, etc.), vaccinations, clinical examination and legalisation).

Tags

Tags are made from a variety of materials – most commonly metal or plastic – and are usually augmented by alphanumeric codes for individual or group recognition. Tags can be applied to many different parts of the body depending on the anatomy of the animal. In general, there is a trade-off between a tag's visibility and its negative effects on the wearer; larger tags are more visible, but could affect the wearer more (depending on the size of the animal). The durability and retention of a tag depend on factors such as the tag's material, size, shape and placement location, as well as wearer characteristics, which include anatomy, behaviour, habitat and infection rate (Beausoleil *et al.*, 2004).

Tags are widely used in agriculture (e.g. UK cattle passport system) and are used for certain wildlife specimens, for example for CITES-listed crocodylian skins. All parts of crocodylian skins whether raw, tanned and/or finished crocodylian skins (including flanks, tails, throats, feet, backstrips and other parts) as well as entire raw, tanned or finished crocodylian skins have to be marked with a universal tag as agreed by CITES Parties in CITES Resolution Conf. 11.12. This Resolution describes the requirements for the tag to be used by CITES Parties, for example the tag must be non-re-useable, should include the ISO code for the country of origin and a unique serial identification number. The CITES Secretariat regularly publishes the latest and most

² The Regulation sets out the requirements for the movement of pet animals (dogs, cats and ferrets) travelling within the European Community, and into the Community from non-EU countries. It also refers to importation requirements applying to rodents, domestic rabbits, birds (except certain poultry), ornamental tropical fish, invertebrates (except bees and crustaceans), amphibians and reptiles.

up-to-date list of approved manufacturers for tags that met the criteria described in CITES Resolution Conf. 11.12 and Management Authorities should ensure that only tags obtained from these sources are used.

Bar codes

Bar codes, which are applied to an animal tag or label and read by a scanner have been used to individually mark cattle in certain countries, and use of this technique to mark wild specimens could be investigated.

Tattoo

Tattooing is one of the most permanent methods for marking animals. However, the durability of a tattoo depends on the species and age of the animal, as well as the application quality and the depth and location of the mark. The trade-off for their permanence is that tattoos are not readily visible from a distance, so that animals generally need to be recaptured for identification. Virtually unlimited numbers of animals can be individually identified with tattoos (Beausoleil *et al.*, 2004). However, tattoos can fade and stretch, making characters hard to read. Marking specimens with tattoos is not currently used very widely for CITES-listed specimens, although in certain EU Member States this technique is currently used for CITES-listed specimens (e.g. Slovakia and the UK).

Neckbands and collars

Plastic neckbands or collars have been used extensively for marking waterfowl. Properly applied neckbands are effective markers with few adverse effects on geese. In general, neck collars seem to be superior to nasal discs for tagging waterfowl (Abbot and Oring, 1999). As with all marking techniques, responses differ among species, and investigators should systematically evaluate any possible influences of the marker. The application of this method to CITES-listed specimens is not currently widespread, although a few EU Member States report using bands to mark CITES-listed specimens.

Labelling

Information on labelling of caviar containers and packaging are discussed in the section entitled “Marking and labelling provisions of the EC Wildlife Trade Regulations and of CITES Resolutions”.

Identification

Forensics

Wildlife forensics biology and toxicology apply molecular biology techniques (e.g. DNA fingerprinting) and analytical chemistry (drug and alcohol analysis) to deal with wildlife crime. As such, these disciplines can provide in-depth information about the specimens analysed, using modern molecular genetics tools including the polymerase chain reaction (PCR), analysis of mitochondrial DNA (mtDNA) and restriction length polymorphism (RFLP) (Stelling and van der Peijl, 2001).

Identification of species and their parts and derivatives may be possible from morphological examination as well (e.g. bones, skins, fur, feather, etc.). Experts in their field, including ornithologists, mammologists and curators based at reference collections such as national museums can carry out morphological examinations to identify to species level (Pendry *et al.*, 2006).

Information about the following can be obtained using these forensic techniques, and can be of use in investigations related to wildlife trade: identification of species and of individual specimens, identification of geographic origin of a specimen, parentage analysis and sex identification.

The following are examples of the type of forensic investigations carried out in recent years:

- Identification of the sturgeon or paddlefish species from caviar;

- Testing to distinguish elephant and mammoth ivory products;
- Species identification of cetaceans;
- Species determination for bird eggs;
- Analysis of 'ivory' roulette balls to establish whether they were made of elephant ivory or a substitute;
- Identifying species contained in traditional medicine: e.g., rhinoceros horns, bear gallbladders, and various plants;
- Identifying the species of rainforest hardwood trees such as mahogany and teak;
- DNA profiling of whale meat (e.g. Norway/Japan) allowing meat offered for sale on the market to be attributed to the specific whales caught;
- Genetic finger printing of valuable or extremely rare parrots by certain governments or owners in order to identify them individually.

Marking and labelling provisions of the EC Wildlife Trade Regulations and of CITES Resolutions

Wildlife trade in the European Union (EU) is regulated by Council Regulation (EC) No. 338/97 and the implementing Commission Regulation (EC) No. 865/2006, hereafter referred to as the EC Wildlife Trade Regulations. Certain specimens of species listed in the Annexes of Council Regulation (EC) No. 338/97 must be uniquely marked (or labelled), for internal EU trade control purposes (e.g. in live Annex A animals) or for the purposes of controlling trade to and from the EU (e.g. crocodylian skins and caviar). Specimens of species covered by a travelling exhibition certificate or by a personal ownership certificate are also required to be uniquely marked. These marking requirements were developed to prevent fraud and to curtail illegal trade in specimens that are controlled by the EC Wildlife Trade Regulations. For example, details of the mark, such as the unique number code, have to be provided on the permit or certificate allowing trade in the specimens to ensure that the specimens are indeed those referred to in the accompanying document.

This section provides details on the legislative requirements in the EC Wildlife Trade Regulations specifically for marking and labelling of specimens. The Table hereunder summarises the marking requirements by taxonomic group and taxon and each of these categories is discussed in more detail after the table.

Table 1

Summary of marking requirements under the Commission Regulation (EC) No. 865/2006. Specific exemptions (e.g. where specimens do not need to be marked, or can be marked using alternative methods for welfare reasons) are not included.

Taxa	Annex	Article	Marking
All live vertebrates exempted from provisions of Article 8(1) of EC Reg. 338/97 regarding commercial activities	A	59(5), 66	Birds (captive-born and bred) -uniquely marked seamlessly closed leg-ring. Other vertebrates -uniquely numbered unalterable microchip transponder <i>Exemptions detailed in 66(4)</i>
All live vertebrates being exported from the Community	A	65(4) & 66(1&2)	Birds (captive-born and bred) -uniquely marked seamlessly closed leg-ring. Other vertebrates -uniquely numbered unalterable microchip transponder <i>Exemptions detailed in 66(4)</i>
Captive born and bred birds, and other birds born in a controlled environment	<i>See far right column</i>	66(8)	Where a captive born and bred bird specimen is marked it must be marked with a uniquely marked seamlessly closed leg-ring.
All vertebrates being imported into the Community for which the Conference of the Parties has approved an export quota	CITES Appendix I	64(1.c); 66(6)	In accordance with the recommendations of the Conference of the Parties to CITES (i.e., as detailed in the Resolutions)
Live animals or plants as part of a travelling exhibition	A and B	33(1.c); 66	Birds (captive-born and bred) -uniquely marked seamlessly closed leg-ring. Other vertebrates -uniquely numbered unalterable microchip transponder Artificially propagated plants – marked in a

Taxa	Annex	Article	Marking
			manner that authorities can verify corresponds to the documentation.
Live vertebrates belonging to a travelling exhibition	A	33.1; 33(1.c) 64(1.f)	Travelling exhibition certificate may be used as an import permits if specimens are marked in accordance with the recommendations of the Conference of the Parties.
Live animals covered by a personal ownership certificate	A and B	40(1.d); 66	Birds (captive-born and bred) -uniquely marked seamlessly closed leg-ring. Other vertebrates -uniquely numbered unalterable microchip transponder.
Captive-bred or ranched animals from operations approved by the Conference of the Parties being imported into the Community	A and B	64(1); 66(6)	Import permits only granted if specimens marked in accordance with the recommendations of the Conference of the Parties to CITES.
Import of African elephant <i>Loxodonta africana</i> (raw tusks and cut pieces thereof that are both > 20cm and > 1kg)	A and B	64(1); 66(6)	Import permits only granted if specimens marked in accordance with the recommendations of the Conference of the Parties to CITES.
Import of crocodilians (raw, tanned and/or finished skins, flanks, tails, throats, feet, backstrips and other parts)	A and B	64(1); 66(6)	Import permits only granted if specimens marked in accordance with the recommendations of the Conference of the Parties to CITES.
All Acipenseriformes spp.	A and B	64(1); 66(6); 66(7)	Need to be labelled for import, export and re-export with non-reusable labels affixed to each primary container.

All live vertebrates (mammals, birds, reptiles, amphibians and fish) listed in **Annex A** that are considered for exemption from the prohibition of commercial use under Article 10 of Council Regulation (EC) No. 338/97 (ie specimens that may be traded), for example, captive bred specimens, must be uniquely marked in accordance with the criteria described in Article 66 of Commission Regulation (EC) 865/2006 before an internal trade certificate can be granted. Article 66 states that EU Member States have to apply the following techniques:

Captive born or bred Annex A birds must be marked with a closed ring (uniquely marked seamlessly closed leg-ring, i.e. a ring or band in a continuous circle, without any break or join, which has not been tampered with in any way, of a size which cannot be removed from the bird when its leg is fully grown after having been applied in the first days of the bird's life and which has been commercially manufactured for that purpose). In cases where this is not possible due to physical or behavioural characteristics of the bird, an unalterable microchip transponder conforming to ISO Standards 11784:1996 and 11785:1996 (E) should be used;

All other live Annex A vertebrates should be marked with an unalterable microchip transponder to ISO Standards 11784:1996 and 11785:1996 (E). In cases where this is not possible due to physical or behavioural characteristics of the animal, a ring, band, tag, tattoo or another appropriate method should be used.

The above provisions also apply to specimens covered by a **travelling exhibition certificate** (Article 33(1)) or by a **personal ownership certificate** (Article 40(1)).

Under the current EC Regulations, it is not required to mark all live Annex B-listed vertebrates, as is the case for live Annex A-listed species. There has been debate within the EU regarding the advantages and disadvantages of extending current marking requirements to include all live Annex B-listed vertebrates or those groups which are more commonly traded illegally. While this may help reduce illegal trade in these specimens, there are concerns amongst some Member States that it would not be possible to implement due to the additional administrative burden.

Exemptions from the marking provisions

In some cases certain live animals are exempt from the marking requirement of Article 66, these are:

Certain commonly bred bird species: Captive-born and bred bird species that are listed in Annex X of Commission Regulation (EC) No. 865/2006, and hybrids thereof. These species are bred in such numbers that it is felt unnecessary for them to be uniquely marked. The bird species listed in Annex X are also covered by a general sale exemption and no specific sales exemption certificate is needed for the commercial use of these specimens;

For animal welfare reasons: An exception may also be made in cases where the physical properties of the animal do not allow the safe application of any marking method. This may for example be the case for juvenile specimens. In such cases, the Management Authority may recognise an alternative marking technique as the appropriate method. In some cases the Management Authority will exempt the animal from the marking requirement and will record this on the sale exemption certificate or, where marking can be carried out at a later date, a special condition may be included, for example, specifying when the animal has to be marked.

The use of alternative marking methods

In cases where the marking method recommended by the EC Wildlife Trade Regulations (i.e. closed ring for captive-born and bred birds and microchip for all other live vertebrates) cannot be safely applied to a specimen, EU Member States can recognise alternative marking methods for live Annex A vertebrates. Some Member States have developed guidelines (e.g. the Italian Scientific Authority has guidelines on marking of specimens from species listed in Annex A and B) that specify which marking method can be used for which species and specimens, and some Member States have developed specific national legislation (e.g. Austria, Slovenia) with regard to the marking of live animals listed in Annexes A and B and the approved method to be used. In some instances, these guidelines and legislation go beyond the requirement of the EC Regulations.

However, an alternative marking method approved in one EU Member State should be recognised by the Management Authority of another EU Member State, although difficulties can arise. Photographic documentation (or "photo ID"), which does not involve physical marking, but uses visual records for identification, is used by certain Member States in place of marking. However, this is not accepted by all Member States as a valid method to identify animals in certain cases, and the use of photo IDs is not standardized between different Member States. The use of this technique has caused disagreement between Member States and is currently being debated.

Marking requirements set by the Conference of the Parties to CITES

In addition to the requirements for Annex A specimens outlined above, certain other specimens of species listed in Annexes A and B of the Regulation (EC) No. 338/97 have to be uniquely marked before they can be imported into the EU. This applies to certain live animals as well as to dead specimens and parts of these species such as skins, trophies or caviar.

For certain specimens, CITES Parties have adopted special Resolutions to determine and approve recommendations on marking methods and related information. The marking provisions covered in the CITES Resolutions are legally binding in the EU through Article 66.6 of Commission Regulation (EC) No. 865/2006 and are detailed in Article 64.1. These Resolutions concern the following specimens (and details on the marking requirements can be found in the CITES Resolution given in brackets):

- Raw tanned and/or finished **crocodilian skins, flanks, tails, throats, feet, backstrips** and other parts thereof that are exported to the EU and entire raw, tanned, or finished crocodilian skins and flanks that are re-exported to the EU (ref. CITES Res. Conf. 11.12);
- Any container of caviar (tin, jar, or box into which caviar of *Acipenseriformes* spp. is directly packed) based on the application of non reusable labels on each primary container that is imported into the Community (ref. CITES Res. Conf. 12.7 (Rev. CoP13)) (detailed below);
- Specimens that derive from a **captive breeding** operation (ref. CITES Res. Conf. 12.10 (Rev. CoP13)) or a **ranching operation** (ref. CITES Res. Conf. 11.16);
- Specimens of a population of a **CITES Appendix I species for which an export quota has been approved** by the Conference of the Parties to CITES for example, for leopard *Panthera pardus* hunting trophies and skins from certain African countries (ref. CITES Res. Conf. 10.14 (Rev. CoP13)) or for hunting trophies of Markor *Capra falconeri* from Pakistan (ref. CITES Res. Conf. 10.15 (Rev. CoP13));
- **Raw tusks of African Elephant** and cut pieces thereof that are both over 20 cm in length and 1 kg in weight (ref. CITES Res. Conf. 10.10 (Rev. CoP12)).

Marking of caviar containers and packaging

In April 2000, CITES Parties agreed on a universal labelling system for the identification of caviar that came into effect in the EU on 1 January 2002. The labelling system was revised in November 2002 (CITES CoP 12) and again in October 2004 in order to improve the traceability of the product (see Resolution Conf. 12.7 (Rev. CoP13) – *Conservation of and trade in sturgeons and paddlefish*). Under the new Resolution all primary containers, irrespective of size and including containers of repackaged caviar, must be affixed with a non-reusable label that includes a unique code (see **Figures 1 and 2**). The uniform labelling system applies to all caviar containers, including re-packaged caviar and all caviar sold on domestic markets, regardless of their origin (wild or from aquaculture).

For the purposes of facilitating the marking requirements for caviar, the Management Authority must license facilities (or plants) that process, package or repackage caviar and must attribute a unique registration number to these facilities. The facilities must also maintain adequate records of the quantities of caviar imported, exported, re-exported, produced *in-situ* or stored that must be available for inspection by the Management Authority in the relevant Member State.

Requirements for caviar packaged in countries of origin

All containers of caviar (tin, box, jar, or other container into which caviar is directly packed) produced by the countries of origin, must have a non-reusable label, regardless of their size or destination, whether domestic or international. The non-reusable label affixed by the processing or packaging plant in the country of origin (first country of export) must include the information as shown in the example below, in the same order and appearance, using the codes agreed in Annexes 1 and 2 of CITES Resolution Conf. 12.7 (Rev. CoP13) (see

<http://www.cites.org/eng/resols/12/12-7.html>). The information that appears on the labels must be included on or attached to the CITES (re-)export document.

Figure 1

Description of label to be affixed in the country of origin on all primary caviar containers

HUS/W/RU/2000/xxxx/yyyy

HUS:	Standard species code, here " <i>Huso huso</i> "
W:	Source code of the caviar, here "wild"
RU:	ISO code of the country of origin, here "Russian Federation"
2000:	Year of harvest, here 2000
xxxx:	Number for the processing plant
yyyy:	Lot identification number

Requirements for re-packaged caviar

All containers in which caviar is repackaged must also be affixed with a new non-reusable label, regardless of its size and destination, whether it is destined for re-export or the domestic market. As required for the label affixed in the country of origin, the new label should allow to trace the origin of the caviar. It must therefore contain the information shown below, in the same order and appearance, using the codes agreed in Annexes 1 and 2 of CITES Resolution Conf. 12.7 (Rev. CoP13).

Figure 2

Description of label to be affixed in the country of re-packing on all secondary caviar containers

PER/W/IR/2001/IT-wwww/zzzz

PER:	Standard species code, here " <i>Acipenser persicus</i> "
W:	Source code of the caviar, here "wild"
IR:	ISO code of the country of origin, here "Islamic Republic of Iran"
2001:	Year of repackaging, here 2001
IT-wwww:	The official registration code of the repackaging plant, which incorporates the ISO two-letter code of the country of repackaging (in this example Italy) if different from the country of origin (in this example the Islamic Republic of Iran)
zzzz:	Lot identification number, or CITES export permit number, or re-export certificate number

Every country can design their own labels, which may vary in appearance but must contain the codes shown in Figures 1 and 2, with either a centralised system (e.g. the CITES Management Authority) distributing labels or this can be the responsibility of individual packaging companies.

Overview of marking techniques in use in EU Member States

An inventory of the different marking techniques used in the 25 EU Member States is presented in Annex 1 of this report. This inventory also presents details on techniques used for different taxa, national legislation covering marking provisions and the authorities that deal with marking or the manufacturers of marking material. The inventory lists Member States in alphabetical order and, within each Member State, the information is presented at the taxonomic level. This information is summarised below.

In the case of mammals, microchip transponders and documentation such as photo ID or drawings (which are explained more fully in the section entitled “Description of marking, labelling and identification techniques used in wildlife trade”) were found to be the most common marking methods used by Member States (**Table 2**). For birds, the most common marking methods were found to be, respectively, closed rings, microchip transponders and open rings, whilst for reptiles, the most common methods were found to be microchip transponders and documentation. During the study, specific requirements for the marking of amphibians and fish have been found only in Slovakia and the UK.

As can be seen in **Table 2**, for many of the taxonomic groups, many Member States use more than one method. For example, mammals in Sweden can be marked using either a microchip transponder, a ring, a band or a tag. Such cases occur because, although the EC Wildlife Trade Regulations, or national legislation where relevant, specify a preferred marking method, sometimes it is not possible to use this method due to behavioural or physical characteristics of the animal (e.g. it is too small). Therefore, alternative methods are used and are listed in Table 1 alongside the preferred method.

Very few Member States have marking provisions in place for amphibians and fish, even though Annex A-listed species of amphibians and reptiles (and specific groups of Annex B-listed species such as ranches or captive-bred specimens), should be marked with microchip transponders, unless the Management Authority judges that another method is more appropriate due to behavioural/physical characteristics of the specimen. This is likely to be due to the fact that few Annex A-listed species of fish and amphibians are traded.

Some Member States have no specific additional national provisions for marking specimens and directly apply the EC Wildlife Trade Regulations (see **Table 3**). Some Member States have adopted specific national legislation with regard to the marking of live animals. For example, in Austria a Federal Decree regarding the marking of species, which provides for stricter requirements on certain points, was developed in 2006 (see **Annex 1**). One difference between the Austrian legislation and the EC Wildlife Trade Regulations is that the Austrian legislation requires the use of photo documentation for reptiles and that photos should be updated regularly to ensure better identification of the specimen.

Some Member States have produced documents detailing marking techniques, which other Member States may find useful:

- The UK Scientific Authority (Joint Nature Conservancy Committee, JNCC) has produced a document titled “Marking live Annex A species as a requirement of EC Regulation 338/97 & 939/97. A Discussion Paper on Microchip Transponders & Alternative Marking Methods”, which provides details on the requirements concerning:
 - Implantation site of microchip transponders;
 - Microchipping Annex A Psittaciformes;
 - Microchipping Annex A tortoises;
 - Marking requirements for live Annex A snakes;
 - Marking requirements for live Annex A mammals.

- The Italian CITES Scientific Authority, in co-operation with TRAFFIC Europe-Italy, produced a document (in Italian³) presenting an overview of wildlife marking techniques. It provides information on temporary marking techniques currently in use (radio-telemetry, GPS, acoustic transmitters, electronic ear tags, tags, streamers, dyes, paints, inks, radioactive markers, fluorescent dust, nocturnal tracking light, temporary leg bands and collars and bands) and permanent and semi-permanent marking techniques (leg bands, PIT - Passive Integrated Transponder, CWT - Coded Wire Tagging, Vialpha – Soft Visible Implant Alphanumeric Tagging, VIE – Visible Implant Fluorescent Elastomer Tagging, Tattoos, Chemical marking, Branding and tissue removal, Dentinal layering, Natural marking and photo-identification and genetic identification).

Table 2

Marking techniques applied in EU Member States under the EC Wildlife Trade Regulations or specific national legislation. The preferred method, according to the EC Wildlife Trade Regulations, is in bold for each taxonomic group.

Taxa	Marking techniques	Country	
Mammals	Transponder	AT, BE, CZ, DE, DK, EE, ES, FI, FR (wolf), HU, IT, MT, NL, PL, PT, SE, SI, SK, UK	
	Documentation**	AT, BE (dolphins), CZ, DE, PT, SE, SI	
	Tattoo	FR (wolf), SK, UK	
	Tags	NL, SE	
	Open ring	SI	
	Earmark	FI	
	Rings	SE	
	Bands	SE	
Birds	Closed ring	AT, BE, CZ, DE, DK, EE, ES, FI, FR, HU, IT, LU, MT, NL, PL, PT, SE, SI, SK, UK	
	Transponder	AT, BE, CZ, DE, DK, ES, FI, FR, HU, IE (Peregrine Falcons), IT, MT, NL, PT, SE, SI, SK, UK	
	Open ring	CZ, DE, FR, HU, SI, UK	
	Documentation**	CZ, DE, SI	
	Neck ring	FI	
Reptiles	Transponder	AT, BE, CZ, DE, DK, EE, ES, FI, IT, MT, NL, PL, PT, SE, SI, SK, UK	
	Documentation**	AT, CZ, DE, DK, FI, PT, SE, SI	
	Ring	SE, SI	
	Band	SE	
	Tag	SE	
	Tattoo	SK	
	Tortoises	Transponders	HU, SE (only implanted after it weighs 100g), SK, UK
		Documentation**	IT, LU
		Band	UK
		Tag	UK
	Tattoo	UK	
Tortoises (< 10cm carapax length)	Documentation**	BE (exemption certificate), DK, ES, HU, SI, SK	
Snake	Transponder	UK (inserted 12 months after hatch date)	
Reptile skin products	Tag	DE, IT	
	Buckles	FR	
Amphibians & Fish	Transponder	BE, DK, IT, MT, NL, SK, UK	
	Tattoo	SK	
Caviar	Holographic stickers	EE	

**Documentation refers to photographic ID for most Member States but in some cases, it can also refer to drawings of the animal or to descriptions of it (sex, age, weight, length etc).

Source: 1) information from the 2003 TRAFFIC survey on marking techniques 2) information received from CITES Management Authorities to the letter sent by the European Commission on behalf of TRAFFIC Europe on the 5 April 2006 3) Parry-Jones & Knapp (2005) 4) Kecse-Nagy *et al.* (2006)

³ Ministero dell'ambiente and TRAFFIC Europe-Italy, 1999. Sistemi di identificazione ai fini dell'applicazione del regolamento (CE) 338/97 e del regolamento (CE) 939/97. 47pp.

Table 3**Overview of the situation regarding legal requirements for marking in the EU**

Legal status of marking requirements	Member States
No specific national legislation on marking – The EC Wildlife Trade Regulations are implemented directly	BE, CY, DK, EE, LT, LU, LV, PL, PT, SE
National legislation covers marking	AT, BE (for European birds covered by the Birds Directive), CZ, DE, DK (only for birds of prey), FR, GR, HU, IE, IT, MT, NL, SI, SK, UK
No information received	ES

Source: 1) information from the 2003 TRAFFIC survey on marking techniques 2) information received from CITES Management Authorities to the letter sent by the European Commission on behalf of TRAFFIC Europe on the 5 April 2006 3) Parry-Jones & Knapp (2005) 4) Kecse-Nagy *et al.* (2006)

Different methods are employed by Member States to issue the marking number for the specimen and for maintaining records of these numbers. Furthermore, in some Member States, the Authority in Charge (AIC) differs depending on the taxa or the marking technique involved (**Table 4**). The most common situation is that the Management Authority is the designated AIC, followed by other governmental bodies (Scientific Authority, police, district office). In certain Member States, either a unique Association acts as the AIC or there may be different Associations in charge for different taxa or marking systems (e.g. in France the Ornithological Union is in charge for closed rings for birds whilst in Germany the International Reptile Association is in charge of the tagging system for finished reptile products).

Table 4**Overview of the Authority in Charge (AIC) for marking in the EU**

Authority in Charge	Member States
CITES Management Authority	AT, CZ, EE, FI, LU, NL, UK
CITES Scientific Authority	IT
Police	IT
District office	SK
Associations	BE, DE, FR, NL, SE
Veterinarian	NL, SE, SI
Holder/owner	DK, HU, IE, IT, MT, NL, PL, PT
Information missing	CY, ES, GR, LT, LV

Source: 1) information from the 2003 TRAFFIC survey on marking techniques 2) information received from CITES Management Authorities to the letter sent by the European Commission on behalf of TRAFFIC Europe on the 5 April 2006 3) Parry-Jones & Knapp (2005) 4) Kecse-Nagy *et al.* (2006)

Discussion

The inventory (**Annex 2**) presents an updated overview of marking techniques used by EU Member States, which builds on that developed in 2003 for the 15 Member States at the time. However, it still lacks up-to-date information for certain Member States.

There exists a wide range of marking techniques which are applicable to wildlife specimens. These range from invasive techniques such as microchip transponders, to non-invasive techniques such as photo documentation or leg rings. Different techniques are suited to different taxa based on the animal's physical and behavioural characteristics.

As is highlighted in the section detailing different marking techniques, the use of microchip transponders leads to a number of practical problems, in particular regarding the time-consuming and difficult process of catching or otherwise gaining access to an animal and finding the microchip transponder. Some of these problems stem from the fact that the EC Wildlife Trade Regulations do not specify the locations for different taxa where the microchip transponder should be placed. Guidelines dealing with this issue have already been developed, for example the advice developed by the IUCN/SSC Conservation Breeding Specialist Group on microchip transponders (Anon., 2001) and these are listed in **Annex 1**. CITES Resolution *Conf. Res. 8.13 (Rev.) Use of coded-microchip implants for marking live animals in trade* also recommends that "the location of implanted transponders in each animal be standardized according to the advice from the IUCN/SSC Conservation Breeding Specialist Group".

The inventory of marking techniques used in the EU reveals that most Member States use more than one marking technique for specific taxa, as authorised under Article 66(4) (which states that if the Management Authority is satisfied that the method recommended in Article 66 is not appropriate for the specimen, they may use an alternative method which they deem to be appropriate). However, this clause, which aims mainly to accommodate animal welfare issues, results in a whole range of methods being used for any one species and hence means that an enforcement authority cannot know which mark to expect for which taxonomic group as this may differ between Member States. As well as using different alternative methods, Member States may disagree as to what they consider to be an appropriate alternate marking method e.g. in the case of photo identification (see below). This results in confusion for the traders and the enforcement authorities and in practice some methods are sometimes refused by certain Member States.

There is also concern over the possibility that Article 66(4) of Commission Regulation (EC) No. 865/2006 allows issuance of permits and certificates for Annex-A live vertebrates which cannot be marked or made individually identifiable by a description. Some Member States consider that such certificates should be limited only to very exceptional cases for trade in "higher interest" purposes e.g. for the purposes according to the Articles 8.3(c), 8.3(e), 8.3(f) and 8.3(g) of Council Regulation (EC) No. 338/97, and when there is little possibility for misuse of such documents. Because certificates for non-identifiable live Annex A-listed vertebrates could be used to launder illegal specimens, for example with young tortoises, some Member States recommend that trade in non-marked and non-identifiable Annex A-listed live vertebrates should not normally be allowed.

In the case of photo identification, the current situation is confusing as not all Member States are using this method and in those that are, different photo identification systems are used. Photos are not considered by some Member States as a robust and permanent marking system.

Although complete harmonisation of marking and identification methods across EU member States is probably not possible, greater harmonisation should be possible and is desirable to facilitate the work of enforcement authorities. This is particularly important for certain Annex A-listed specimens which are currently traded in large quantities but for which the marking provisions specified by the EC Wildlife Trade Regulations (microchip transponders) are generally recognised to not be appropriate for behavioural/physical reasons e.g. in the case of juvenile tortoises.

Almost half the EU Member States directly apply the text of the EC Wildlife Trade Regulations, which provides only general guidance and do not give detailed information on marking techniques (e.g. materials used, location of marks, etc.). The rest of the Member States have national legislation covering marking to varying degrees, with the majority of Member States simply transposing the EC Wildlife Trade Regulations into national legislation without specifying the marking techniques to be used in any greater depth than is included in the EC Wildlife Trade Regulations. However, Austria, Germany, Slovenia, Italy and the UK have adopted specific provisions in this field with detailed provisions about marking.

In terms of the Authority in Charge (AIC) who allocates the number to be put on the mark and who keeps a register of these numbers, this varies widely between different Member States, but is often the Management Authority or associations or the actual holder or owner. In Member States where there is no single designated authority to issue numbers for the marks, there is no way to ensure that any number is unique as different associations may be issuing numbers in parallel.

Very few Member States reported having marking provisions in place for amphibians and fish, which is most likely because few Annex A-listed fish and amphibians are traded. However, for the species of amphibians and reptiles which need to be marked under the EC Wildlife Trade Regulations, it would be useful to gather more information about which techniques are appropriate for which specimens and to verify that amphibians and fish are being marked.

Regarding labelling of caviar containers, every country can design their own labels, which all contain the same minimum information but may vary greatly in appearance. The fact that every country produces its own design of labels may make it harder for enforcement officers to distinguish true from forged labels as they will need to know what a true label from each country looks like. This may increase the risk of forgery of labels and trade in illegal caviar.

Recommendations

The following recommendations are provided with the aim of facilitating the work of CITES Management and enforcement authorities through a common understanding and standardization of marking practices in EU Member States:

- EC legislation pertaining to marking should be clarified through guidelines so that marking techniques for specific specimens types are standardised. Specifically, standardisation of the location on the animal's body where a mark should be applied (i.e. microchip transponders or tattoos) for different species would facilitate the work of enforcement and Management Authorities who need to find the marks. Existing guidelines such as those developed by the IUCN/SSC Conservation Breeding Specialist Group could be used as a basis for this;
- One or several 'Authorities in Charge (AIC)' should be designated in each Member State, which are authorised to produce the marking devices (e.g. microchip transponders and rings) and apply them (e.g. tattoos) and must keep records of the mark they have applied and share these with the Management Authority (if the Management Authority is not the AIC) so Member States can ensure specimens are uniquely marked;
- Member States should provide information to the European Commission concerning marking of amphibians and fish which are required to be marked under the EC Wildlife Trade Regulations;

Regarding specimens which cannot be marked according to requirements specified in the EC Wildlife Trade Regulations:

- Member States should agree on the physical and behavioural characteristics of specimens which allow them to be exempt from marking requirements specified in the EC Wildlife Trade Regulations;
- Member States should agree on marking methods for those Annex A-listed species regularly found in trade within the EU and for which closed rings and microchips are considered not appropriate, e.g. juvenile tortoises.
- Where photographic identification is used, minimum technical standards should be adopted to harmonise practices between Member States and a list of species eligible for photographic identification developed (e.g. minimum age / size of specimens for which photographic identification is appropriate);
- Member States should further research new marking techniques which could be used on specimens which cannot currently be marked due to their behavioural or physical characteristics;
- For those live Annex A vertebrates which can not be marked by any 'appropriate method', or identified by other means, and are therefore non-identifiable, trade should only be allowed for specific purposes and under exceptional circumstances, with a transaction-specific certificate.

Regarding labelling of caviar containers:

- Information should be collected by the European Commission on the different CITES caviar labels which are produced by EU Member States, including photos of these labels, to help enforcers determine the legality of labels in order to facilitate the work of enforcement authorities;

- The feasibility and usefulness of developing a standardised international label for caviar should be investigated by Member States.

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Annex 1

Extract from: Anon. (2001) Transponders Working Group Report. Pp.23-24 in Conservation Breeding Specialist Group (CBSG) Newsletter Vol. 12(1).

Standardization of Implantation Sites for Microchip Transponders.

The Transponder Working Group recommended the following implantation sites for microchip transponders in live animals:

Fish:

Large (>30cm): left base of dorsal fin

Small (<30cm): coelomic cavity

Amphibians:

Lymphatic or coelomic cavity

Reptiles:

Lizards, sm. (<12.5cm snout to vent): coelomic cavity

Lizards, large (>12.5cm snout to vent): lateral left body side anterior to inguinal region

Chelonians: leg left hind limb socket or leg (alternative methods may need to be considered for chelonians less than 10cm in length)

Crocodylians: left side anterior to the nuchal cluster or left hind leg.

Snakes: left side dorsal to vent

Birds:

Left pectoral muscle or thigh, except:

Ratites: in pipping muscle (in chicks) or in lateral left neck if adults.

Vultures: left base of neck.

Mammals:

Behind the left ear or to the left of the spine between scapula, except for:

Elephants: left tail fold

Hyrax: left lumbar area

Loris: left lumbar area

Carnivores: For some species (e.g., cheetahs in southern Africa and Mexican wolves in North America) microchips have been placed at the left tail base, so that area should be checked.

Annex 2 Inventory of marking techniques in use in EU Member States.					
This table is based upon information compiled by TRAFFIC in 2003, updated in 2006 with information from the biennial reports and country profiles prepared for the EU Wildlife Trade Enforcement Co-ordination workshop. The original table was submitted to the 8th Enforcement Group meeting in September 2003 as Doc EG8/6/2.					
Information received from this Member State					
CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
AT	Birds	Closed ring, Transponder	<u>Closed rings/transponders</u> : The new national decree on marking ("Artenkennzeichnungsverordnung BGBI. I & II Nr. 164 /2006"), in force since 21 April 2006, does not specify AIC and M, which is dealt with at the level of each of the nine Austrian states. <u>Transponders</u> : Only registered veterinarians are allowed to insert transponders. <u>Photo identification</u> : All photographs associated with the initial application for a CITES certificate, as well as subsequent photographic up-dating, is the responsibility of the holder.	Federal Decree regarding the marking of species ("Arten – Kennzeichnungsverordnung BGBI. I & II Nr. 164 /2006"), based on marking requirements of CR 338/97 and Commission Regulation (EC) 865/2006. Federal decree regarding the holding of captive specimens (2. Tierhaltungsverordnung 2004) requires all captive held species of owl (Strigiformes) and birds of prey (Falconiformes), irrespective of Annex, and of parrots (Psittaciformes) listed in Annex A of Council Regulation 338/97, to be marked with a closed legging or transponder	The new national decree on marking provides for stricter requirements regarding the use of photo identification for reptiles to ensure quality and regular up-dating of photographs to maximise identifiability. No one of the marking options given in the decree is specified to be the preferred marking method for any one taxon. Methods other than those specified in the decree may be used (Art. 66 (1)(b) of Commission Regulation (EC) 865/2006), but only after consultation with the national Management Authority.
AT	Mammals	Transponder, Photo identification	see above	see above	see above
AT	Reptiles	Transponder, Photo identification	see above	see above	see above
BE	Birds (captive-bred and subject to EU Birds Directive)	Closed rings	AIC for rings are specified by region. In Flanders there are 7 recognised associations who deliver seamless closed rings,	Regional legislations on this subject. 1) Wallonia: " Arrêté du Gouvernement wallon du 27/11/2003 fixant des dérogations aux mesures de protections des oiseaux". 2) Brussels: "Ordonnance relative à la conservation de la faune sauvage et à la chasse" but no specific legislation for the ringen. 3) for Flanders: "Koninklijk Besluit van 09/09/1981 betreffende de bescherming van vogels in het Vlaamse Gewest".	
BE	Birds (not subject to EU Birds Directive)	Closed rings and if not possible, microchip	No M specified and no AIC specified for rings. Transponders: Only registered veterinarians are allowed to insert transponders.	Commission Regulation (EC) 865/2006 Article 66	
BE	Mammals and other vertebrates	Microchip.	No need to register microchip in a centralised database but such a database exists (ID-CHIPS) for voluntary registration. Transponders: Only registered veterinarians are allowed to insert transponders.	Commission Regulation (EC) 865/2006 Article 66	
BE	Dolphins	Microchips or photo-identification if microchip not possible,	Only registered veterinarians are allowed to insert transponders.	Commission Regulation (EC) 865/2006 Article 66	
BE	Tortoises (<i>Testudo graeca</i> , <i>T. hermanni</i> , <i>T. marginata</i> , <i>T. kleinmanni</i>) < 10cm plastron length	Exempted from marking - see COMMENT section.			Exempted from marking. Receive a limited validity certificate instead.
CY				There are no specific legal provisions in Cyprus for the marking of specimens listed in the EU Annexes. Cyprus does not implement Articles 64 or 66 of Commission Regulation (EC) 865/2006 with regard to marking of live Annex A birds and vertebrates, although this is being planned.	

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
CZ	Mammals (Annex A and B with exceptions)	Transponder (preferred method), or photographic identification	AIC + M (transponder): commercial producers and suppliers that meet criteria of the ISO norms; M (pictures) :the owner of the specimen. AIC for records (central database) of marked animals: the Ministry of the Environment (currently under development).	Commission Regulation (EC) 865/2006 Article 64 and Decree No 227/2004 for the implementation of certain provisions of the Act No. 100/2004	Technique chosen on the advice of the CITES Scientific Authority, the Ministry of the Environment provides guidance. Transponders are the major method according to the national legislation, pictures can be accepted if a specialised veterinary doctor certifies that transponder is not applicable. The marking system for specimens of protected animals is still under development and is going to be changed and improved in the future.
CZ	Birds (Annex A and B with exceptions)	Ring (closed)		see above + Act No. 114/1992, on protection of nature and the landscape (for Saker falcon, Peregrine falcon and their hybrids)	Each ring must bear letters "CZ" and a serial number assigned by the Ministry of the Environment. Selected species from Annex B must be marked as well, because they have to be obligatorily registered in the Czech Republic
CZ	Birds (Annex A and B with exceptions)	Ring (open)	M: private entities; generally rings are produced by commercial producers. AIC for records (central database) of marked animals: the Ministry of the Environment (currently under development).	Decree No 227/2004 for the implementation of certain provisions of the Act No. 100/2004	Open rings are not acceptable generally, only Swiss rings with locking pins
CZ	Birds (Annex A and B with exceptions)	Transponder	M (transponder): commercial producers that meet criteria of the ISO norms. AIC for records (central database) of marked animals: the Ministry of the Environment (currently under development).	Commission Regulation (EC) 865/2006 Article 64 and Decree No 227/2004 for the implementation of certain provisions of the Act No. 100/2004	See above
CZ	Birds (Annex A and B with exceptions)	Pictures of leg skin scutellums	M : the owner of a specimen	Applied mainly for Falconiformes protected by Act No. 114/1992.	Additional method to the marking with rings, according to national law on nature protection (Act 114/1992), according to the CITES not generally acceptable.
CZ	Reptiles (Annex A and B with exceptions)	Transponder (preferred method), pictures of lineation, pictures of non-interchangeable signs (photographic identification)	M (transponder): commercial producers and suppliers that meet criteria of the ISO norms. AIC for records (central database) of marked animals: the Ministry of the Environment (currently under development). M (pictures) the owner of a specimen	Commission Regulation (EC) 865/2006 Article 64 and Decree No 227/2004 for the implementation of certain provisions of the Act No. 100/2004	Photographs are used if a specialised veterinary doctor certifies that transponder is not applicable.
DE	in general for certain live mammals, birds (also certain Annex B-species and European bird species) and reptiles	see below	AIC: Wirtschaftsgemeinschaft Zoologischer Fachbetriebe Ringstelle - 63204 Langen - Phone: 49 6103 910724 - Fax: 49 6103 910733 and BNA - Kennzeichenstelle - Postfach 1110 - 76707 Hambrücken - Phone: 49 7255 2800 - Fax: 49 7255 8355	Federal Ordinance on the Conservation of Species	Live animals must be marked right from the start of such keeping; National marking provisions for species listed in Annex A to Regulation (EG) No.338/97 are based on the requirements of Articles 66 and 67 of Commission Regulation (EC) 865/2006. With due regard in particular for requirements under animal protection legislation, these specify details of the marking methods for those mammal, bird and reptile species listed in Annex 6 of the Federal Ordinance on Species Conservation.
DE	Birds (captive-bred)	1.) Closed, seamless foot rings 2.) If not possible, especially if not marked within the first day of the bird's life, see under 'wild birds'.	see above	Federal Ordinance on the Conservation of Species	
DE	Birds (wild)	1.) choice between open rings and micro transponder 2.) after MA's approval: photo ID or drawing	see above	Federal Ordinance on the Conservation of Species	ban on marking of falconry birds with a transponder; transponder marking requires certain weight of specimen concerned (200g)
DE	Mammals	1.) Micro transponder 2.) after MA's approval: photo documentation or any other appropriate means	see above	Federal Ordinance on the Conservation of Species	transponder marking requires certain weight of specimen concerned (200g)

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
DE	Reptiles	choice between transponder and photo documentation	see above	Federal Ordinance on the Conservation of Species	transponder marking requires certain weight of specimen concerned (500g for tortoises or 200g for other reptiles); certain details for photo documentation are prescribed, especially for juveniles documentation must be repeated to ensure continuous tracking of the changes in body characteristics
DE	Reptiles - finished CITES listed reptile products	Tagging system (so-called 'Artenschutzfahne')	AIC: International Reptile Association (IRV) - Waldstr. 44 - 63065 Offenbach - Phone: 49 69 88 72 50 - Email: irv@lederwarenverband.de	Voluntary scheme under the supervision of the German MA which serves as prove of legal origin	
DK	Annex A birds (captive-bred)	Closed, seamless foot rings or microchip if closed ring not possible.	Holder	Commission Regulation (EC) 865/2006 Article 64	
DK	Annex A birds (wildcaught) and all species of owls and birds of prey	Micro transponders	Holder, or if owl or bird of prey a veterinarian designated by the Danish Forest and Nature Agency	Commission Regulation (EC) 865/2006 Article 64. For birds of prey and owls Statutory Order no. 216 of 21th March 1994.	
DK	Annex A vertebrates other than birds (incl. Amphibians and fish if large enough)	Micro transponders	Holder	Commission Regulation (EC) 865/2006 Article 64	
DK	Annex A tortoises (under 10cm carapace length) and small snakes	Photo documentation	Holder	Commission Regulation (EC) 865/2006 Article 64	For the purpose of issuing EU certificates only
EE	All animals covered by Commission Regulation (EC) 865/2006 Article 64	Marking methods are based on the requirements of Articles 66 and 67 of Commission Regulation (EC) 865/2006.	AIC: Management Authority for CITES in the Estonia	Commission Regulation (EC) 865/2006 Article 64	Drafting of the Regulation on stricter measures regarding holding, registration, marking etc. of specimens of species covered by EC Regulation no 338/97 is still under development. According to this regulation annex A live mammals, reptiles and birds must be registered and marked and specimens shall be marked in accordance with the requirements of Commission Regulation (EC) 865/2006 or in accordance with the method approved or recommended by the Conference of the Parties to the Convention for the specimens concerned. This regulation is expected to be in force in August/September 2006.
EE	Caviar	Holographic stickers	Voluntary scheme under the supervision of the Estonian MA which serves as proof of legal origin. Stickers are issued by MA.	Voluntary scheme under the supervision of the Estonian MA	
ES	Birds	Closed ring or microchip if closed ring not possible.			
ES	Vertebrates (mammals or reptiles) other than birds.	Microchip			
ES	Turtles and tortoises and other animals that require it (above a specified size). Most often Testudinidae spp .	Microchip			

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
ES	Turtles and tortoises (below a specified size). Usually 10 cm carapace length or 200 g weight, it depends on the species.	Photograph of plastron and carapace			
FI	Mammals	Microchip, earmark	AIC: Management Authority of Finland	Nature Conservation Act, Art. 44, Commission Regulation (EC) 865/2006, Art.64	
FI	Birds	Microchip, closed ring, neck ring	Same	Same	
FI	Reptiles	Microchip, photo	Same	Same	
FR	Birds	Rings (closed)	AIC: Union ornithologique de France - 74 avenue du Maréchal Juin - 39100 Dôle - Phone: 33 3 84 72 41 15	l'arrêté du 10 août 2004 fixant les règles générales de fonctionnement des installations d'élevage d'agrément d'animaux d'espèces non domestiques	
FR	Birds	Rings (open)	AIC: Club des exotiques (CDE) - 8, rue des écoles - 3200 Vichy - Phone: 33 4 70 59 83 53	see above	
FR	Birds	Radiofrequency transponders	AIC: Aviornis - 99, rue principale - 19410 Perpezac le Noir - Phone: 33 5 55 73 27 84	see above	
FR	Mammals - carnivores - <i>Canis lupus</i>	Electronic identification & Tattoo	AIC: Syndicat national des directeurs de parcs zoologiques (SNDPZ) - Réserve africaine de Sigean - 1130 Sigan - Phone: 33 4 68 48 20 20	Arrêté ministériel du 19/05/2000 relatif à la détention de loup	
FR	Reptiles - crocodylians (flanks & skins)	"SECUR HASP" buckles	AIC: Fédération française de maroquinerie - 21, rue du Mont Thabor - 75001 Paris M: Brooks Todo - 7 rue du Raisin - 68100 Mulhouse	Arrêté ministériel du 22/11/2000 relatif à la procédure de marquage des flancs entiers et des peaux de crocodyliens pour les échanges internationaux de spécimens d'espèces relevant de la convention sur le commerce international des espèces de faune et de flore menacées d'extinction	
GR				Commission Regulation (EC) 865/2006 Article 64 and the Veterinary Law	
HU	Mammals listed in Annex A and B	Microchip transponders	Private person/owners	Commission Regulation (EC) 865/2006 Article 66 and Government Decree No. 271/2002 (XII. 20.)	Microchips can only be inserted by veterinarians
HU	Birds listed in Annex A and B (with exceptions) - bred in captivity	Seamless closed foot rings	Private person/owners	Commission Regulation (EC) 865/2006 Article 66 and Government Decree No. 271/2002 (XII. 20.)	
HU	Birds listed in Annex A and B (with exceptions) - wild	Microchip transponders (open rings can be permitted for Annex B listed birds)	Private person/owners	Commission Regulation (EC) 865/2006 Article 66 and Government Decree No. 271/2002 (XII. 20.)	Microchips can only be inserted by veterinarians
HU	Tortoises	Microchip transponders	Private person/owners	Commission Regulation (EC) 865/2006 Article 66 and Government Decree No. 271/2002 (XII. 20.)	Microchips can only be inserted by veterinarians
HU	Tortoises (under 10cm carapax length)	Photo-documentation from the carapace	Private person/owners	Commission Regulation (EC) 865/2006 Article 66 and Government Decree No. 271/2002 (XII. 20.)	
IE	Peregrine falcons	Microchip	Holders of species	Wildlife Acts 1976 and 2000	

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
IT	Animals (live Annex A)	Microchip transponder according to the age	AIC: CITES Service of the State's Forest Corps	Art.5 Law 150/92 + Commission Regulation (EC) 865/2006	
IT	Birds (live)	Closed rings & microchips	Private person/owners	Art.5 Law 150/92 + Commission Regulation (EC) 865/2006	
IT	Reptiles - tortoises	Documentation (photographic identification)	AIC:Scientific Authority/ CITES Service of the State's Forest Corps	Art.5 Law 150/92 + Commission Regulation (EC) 865/2006	
IT	Reptiles - raw or worked crocodylian skins	Tagging system	AIC: CITES Service of the State's Forest Corps	Art. 8 Law 150/92 + Ministerial Decree 01/28/1994	
LT	All animals covered by Commission Regulation (EC) 865/2006 Article 64			Commission Regulation (EC) 865/2006 Article 64	
LU	Birds	Ring (closed)	AIC: Ministère de l'Environnement - Département de la protection de la nature - 18, Montée de la Pétrusse - 2918 Luxembourg - Phone: 35 2 478 6824	Commission Regulation (EC) 865/2006 (Art. 66)	
LU	Reptiles - tortoises	Documentation (photographic identification)	AIC: Ministère de l'Environnement - Département de la protection de la nature - 18, Montée de la Pétrusse - 2918 Luxembourg - Phone: 35 2 478 6824	Commission Regulation (EC) 865/2006 (Art. 66)	
LV	All animals covered by Commission Regulation (EC) 865/2006 Article 66			Commission Regulation (EC) 865/2006 Article 64	
MT	Birds listed in Annex A to the Council Regulation (EC) No 338/97 as amended and also protected by Council Directive 79/ 409/EEC on the Conservation of Wild Birds	Uniquely marked seamless closed leg-ring that must be approved by the Director of the Environment Protection Directorate within the Malta Environment and Planning Authority	Holder	Commission Regulation (EC) 865/2006 Article 64(5) and the Conservation of Wild Birds Regulations, 2006 (L.N. 79 of 2006)	Currently our CITES Management Authority is investigating a number of marking techniques other than the unalterable microchip transponder and there is the possibility that a legal notice regulating the marking of live specimens of species listed in Annex A and B, be published. The latter is still under discussion.
MT	Birds listed in Annex A to the Council Regulation (EC) No 338/97 as amended and not protected by Council Directive 79/ 409/EEC on the Conservation of Wild Birds	Uniquely marked seamlessly closed leg-ring and when the Management Authority is satisfied that this method cannot be applied because of the physical or behavioural properties of the bird, a uniquely numbered, unalterable microchip transponder conforming to ISO standards 11784:1996 (E) and 11785:1996(E)	Holder	Commission Regulation (EC) 865/2006 Article 64 (1)(a) and (5)	Currently our CITES Management Authority is investigating a number of marking techniques other than the unalterable microchip transponder and there is the possibility that a legal notice regulating the marking of live specimens of species listed in Annex A and B, be published. The latter is still under discussion.

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
MT	Other animals listed in Annex A to the Council Regulation (EC) No 338/97 as amended	A uniquely numbered, unalterable microchip transponder conforming to ISO standards 11784:1996 (E) and 11785:1996(E)	Holder	Commission Regulation (EC) 865/2006 Article 64 (1)(b)	Currently our CITES Management Authority is investigating a number of marking techniques other than the unalterable microchip transponder and there is the possibility that a legal notice regulating the marking of live specimens of species listed in Annex A and B, be published. The latter is still under discussion.
NL	Mounted/stuffed vertebrates of Annex A (not born and bred in captivity) and of Annex B (taken from the wild in the Netherlands)	Tags	AIC: CITES Management Authority in Netherlands	Besluit prepareren Flora- en faunawet	Tags are distributed by the CITES MA of The Netherlands, they have a unique number and may only be attached to mounted specimens by registered taxidermists
NL	Birds (live) All annexes in case of endemic species and annex A for exotic species	Seemless closed foot ring	AIC: 1) Algemene Nederlandse Bond van Vogelhouders 2) Nederlandse Bond van Hoender-, Dwerghoender-, Sier- en Watervogelhouders 3) Nederlandse Bond van Vogelliefhebbers 4) Vereniging Aviornis Internationaal Nederland 5) Vereniging Belangenbehartiging Europese Cultuurvogel	Regeling afgifte en kenmerken gesloten pootringen en andere merktekens Regeling vrijstelling beschermde dier- en plantensoorten Flora- en faunawet	The rings all have an unique number, which contains the land-code, year in which it was placed, name of the AIC, serial number and often (in the near future obligatory, the number of the breeder). For each year a different colour is used.
NL	Birds (live) that cannot be marked with a seamless closed footing	Microchip transponder	Holder	Regeling vrijstelling beschermde dier- en plantensoorten Flora- en faunawet	This method may only be used with a written statement of the veterinarian has been presented that the specimen could not be marked with a seamless closed footing due to physical or behavioural problems
NL	Vertebrates (live), not birds, listed on Annex A	Microchip transponder	Holder	Regeling vrijstelling beschermde dier- en plantensoorten Flora- en faunawet	If specimens cannot be marked with a microchip transponder due to physical problems, a special certificate is obligatory. This certificate can only be obtained after a written statement of a veterinarian has been presented
NL	Endemic vertebrates, not birds, listed on Annex B, C or D, taken from the wild in The Netherlands	Microchip transponder	Holder	Flora- en faunawet, Regeling vrijstelling beschermde dier- en plantensoorten Flora- en faunawet	The possession of this specimens is only allowed with a special exemption which can only be issued for specimens marked with a microchip transponder
NL	All primates and several felidae: <i>Prionailurus bengalensis</i> , <i>Lynx canadensis</i> , <i>Caracal caracal</i> , <i>Puma concolor</i> , <i>Prionailurus rubiginosus</i> , <i>Herpailurus yaguarondi</i> , <i>Panthera leo</i>	Microchip transponder	Holder	Regeling aanwijzing dier- en plantensoorten Flora- en faunawet, Regeling vrijstelling beschermde dier- en plantensoorten Flora- en faunawet	
PL	All animals covered by Commission Regulation (EC) 865/2006 Article 64	Marking techniques are adequate to provisions mentioned in Art. 66 of Commission Regulation (EC) 865/2006	Owners / Private person	Commission Regulation (EC) 865/2006	

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
PT	Annex A birds (captive-bred)	Closed, seamless foot rings or microchip if closed ring not possible.	Holder	Commission Regulation (EC) 865/2006 Article 66	
PT	Annex A birds (wild)	Micro transponders	Holder	Commission Regulation (EC) 865/2006 Article 66.	
PT	Annex A vertebrates other than birds (incl. Amphibians and fish)	1.) Micro transponder 2.) after MA's approval: photo documentation or any other appropriate means	Holder	Commission Regulation (EC) 865/2006 Article 66	
SE	Birds	1) Seamlessly closed leg rings (attached within the first 24 hours after birth) or if the animal's physical properties do not allow this 2) Microchips are used	No official authority responsible for ringing- this is done by Bird Associations.	Commission Regulation (EC) 865/2006 (Art. 66)	
SE	Mammals	1) Microchips; or if the animal's physical properties do not allow this 2) Photo identification is used or other appropriate measures (eg rings, bands, tags)	Veterinarians (or other approved persons) executing the implantation	Commission Regulation (EC) 865/2006 (Art. 66)	
SE	Reptiles	1) Microchips; or if the animal's physical properties do not allow this 2) Photo identification is used or other appropriate measures (eg rings, bands, tags)	Veterinarians (or other approved persons) executing the implantation	Commission Regulation (EC) 865/2006 (Art. 66)	
SE	Turtles and tortoises (< 100 grams)	Microchips (a veterinarian assigns them a microchip and their EU-certificate states that the microchip must be implanted when the animal reaches 100 grams)	Veterinarians (or other approved persons) executing the implantation	Commission Regulation (EC) 865/2006 (Art. 66)	
SI	All captive bred Mammals of Annex A and Annex B breeding stock animals	Microchip transponder, open ring, other documentation (description - sex, age, weight, length- ID photo, drawing); minimum body weight of 200 g before a microchip can safely be inserted (body tissue sample deposited at the MA if animal cannot be identified from description (e.g. fur, hair, blood))	Registered suppliers to supply the marks. Registered markers (veterinarians) to mark the animals. Marking is supervised by the Environmental and Veterinary Inspectorate. The marker issues a marking certificate after each marking and enters it in an electronic database on marking, which is access-secured.	Rules on the Marking of Animals of Wild Species Kept in Captivity (OG of the RS 58/04)	

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
SI	All captive bred birds of Annex A, all "great parrots" of Annex B and other Annex B breeding stock animals	Closed ring, microchip transponder, open ring, other documentation (description -sex, age, weight, length- ID photo, drawing), minimum body weight of 200 g before a microchip can safely be inserted (body tissue sample deposited at the MA if animal cannot be identified from description (e.g. fur, hair, blood))	see above	The Decree on the Course of Conduct and Protection Measures in the Trade in Animal and Plant Species – Trade Decree (OG of the RS 52/04) and the Rules on the Marking of Animals of Wild Species Kept in Captivity (OG of the RS 58/04)	
SI	Captive bred reptiles of Annex A and Annex B breeding stock animals	Microchip transponder, open ring, other documentation (description -sex, age, weight, length-, ID photo, drawing); minimum body weight of 200 g before a microchip can safely be inserted; exemption for captive bred tortoises with plastron shorter than 100 mm; (body tissue sample deposited at the MA if animal cannot be identified from description (e.g. fur, hair, blood)	see above	The Decree on the Course of Conduct and Protection Measures in the Trade in Animal and Plant Species – Trade Decree (OG of the RS 52/04) and the Rules on the Marking of Animals of Wild Species Kept in Captivity (OG of the RS 58/04)	
SI	Tortoises (under 10cm plastron length and captive-bred)	No permanent marking required. Photo documentation of upper and bottom part of the carapace (plastron) is attached to Art. 10 certificates. Animals are temporarily marked with unique code on plasters stuck to the upper part of the carapace. Max. 50 animals for one certificate. Certificates are transaction specific	see above	MA internal rules.	
SI	Birds (Psittaciformes in Annex A, all Falconiformes and all Strigiformes)	Beside permanent and unique marking (see above), a deposit of body tissue samples (e.g. feathers) for molecular and genetic analyses is mandatory.	see above	Rules on the Marking of Animals of Wild Species Kept in Captivity (OG of the RS 58/04)	
SK	Live vertebrates (annex A)		District Office in charge of being present and have to sign the certificate indicating the code number of the mark		
SK	Live vertebrates (annex B)		District Office's authorized organization in charge of being present and have to sign the certificate indicating the code number of the mark		In cases where the ring or microchip is not appropriate for a certain specimen, District Offices determine the most appropriate marking method on a case by case basis, after consultation with the Scientific Authority.
SK	Tortoises	Microchips			In cases where the ring or microchip is not appropriate for a certain specimen, District Offices determine the most appropriate marking method on a case by case basis, after consultation with the Scientific Authority.
SK	Tortoises (under 10cm plastron length)	Photos of the plastron			

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
SK	Mammals (Annex A)	Microchip transponder (if not possible -label, mark, tattoo or other suitable method)	District offices	The Regulation on Implementation of some Provisions of the Act on Protection of Species of Wild Fauna and Flora by Regulating Trade Therein, Ministerial Decree No. 110/2005	
SK	Birds born and kept in captivity (Annex A, B) and birds born in captivity (Annex B)	Seamless closed ring (if not possible –microchip transponder)	District offices	The Regulation on Implementation of some Provisions of the Act on Protection of Species of Wild Fauna and Flora by Regulating Trade Therein, Ministerial Decree No. 110/2006	
SK	Birds born in captivity or taken from the wild (Annex A)	Microchip transponder	District offices	The Regulation on Implementation of some Provisions of the Act on Protection of Species of Wild Fauna and Flora by Regulating Trade Therein, Ministerial Decree No. 110/2007	
SK	Reptiles, Amphibians, Fishes (Annex A, B)	Microchip transponder (if not possible -label, mark, tattoo or other suitable method)	District offices	The Regulation on Implementation of some Provisions of the Act on Protection of Species of Wild Fauna and Flora by Regulating Trade Therein, Ministerial Decree No. 110/2008	
UK	Birds	Closed rings (for chicks) or sealed open rings (or licence if to be kept unringed)	AIC: DEFRA - Wildlife Licensing and Registration Service - Temple Quay House, 2 The Square - Bristol BS1 6EB - Tel: 44 117 372 8692 Email: wildlife.licensing@defra.gsi.gov.uk	Wildlife and Countryside Act 1981 (Section 7) SI 2004 No. 640; SI 2003 No. 3235 (W.315): The Wildlife and Countryside (Registration, Ringing and Marking of Certain Captive Birds) (Wales) Regulations 2003The Wildlife and Countryside (Registration and Ringing of Certain Captive Birds) (England) (Amendment) Regulations 2004	Uniquely marked rings are supplied by Defra for customers in England and Scotland; customers in Wales may source their own rings but these must comply with Article 66 of Commission Regulation (EC) 865/2006
UK	Birds	Microchip transponder: <i>Implantation site recommendations</i>	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Birds - parrots (Annex A)	Assessment of microchipping feasibility	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Mammals	Microchip transponder: <i>Implantation site recommendations</i>	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Mammals (Annex A)	Microchip transponder & tattoo	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Reptiles	Microchip transponder: <i>Implantation site recommendations</i>	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Reptiles - snakes (Annex A)	Microchip transponder (12 months after their hatch date)	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Reptiles - tortoises (Annex A)	Microchip transponder, band, tag, tattoo or other appropriate method	Veterinarians or other approved person executing the implantation	UK Management Authority: <i>Guidance Note for Tortoise Traders</i>	
UK	Reptiles - tortoises (Annex A)	Minimum plastron length of 100mm before a microchip can safely be inserted	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Amphibians	Microchip transponder: <i>Implantation site recommendations</i>	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	

CTRY.	TAXA/ SPECIMEN	MARKING TECHNIQUE	AUTHORITY IN CHARGE (AIC) and MANUFACTURER (M)	LEGISLATION or REQUIREMENTS	COMMENTS
UK	Fish	Microchip transponder: <i>Implantation site recommendations</i>	Veterinarians or other approved person executing the implantation	UK Scientific Authority: <i>CITES licensing & marking requirements in the UK</i>	
UK	Birds (captive-bred)	Closed ring (uniquely marked), or an unalterable microchip transponder confirming to ISO 20 11784:1996 and 11785:1966 (E).	AIC: DEFRA - Wildlife Licensing and Registration Service - Temple Quay House, 2 The Square - Bristol BS1 6EB - Tel: 44 117 372 8692 Email: wildlife.licensing@defra.gsi.gov.uk for unique rings; veterinarians or other approved person executing the implantation for microchips	Commission Regulation (EC) 865/2006 Article 66	
AUTHORITY IN CHARGE (AIC): gives number for particular species and holds register with numbers eg MA or the actual legislation					
MANUFACTURER (M): distributor officially approved by AIC to distribute marks (rings, microchips)					

TRAFFIC, the wildlife trade monitoring network, works to ensure that trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

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