Implementation of Article 16, Council Regulation (EC) No. 338/97, in the 25 Member States of the European Union

Tobias Garstecki



—EUROPE —



Report commissioned by the European Commission Contract 07.0402/2005/399949/MAR/E2 Report prepared by TRAFFIC Europe for the European Commission in completion of Contract 07.0402/2005/399949/MAR/E2

All material appearing in this publication is copyrighted and may be reproduced with permission. Any reproduction in full or in part of this publication must credit the European Commission as the copyright owner.

The views of the authors expressed in this publication do not necessarily reflect those of the European Commission or the TRAFFIC network, WWF or IUCN.

The designation of geographical entities in this publication, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of the European Commission, TRAFFIC or its supporting organizations concerning the legal status of any country, territory, or area, or its authorities, or concerning the delimitation of its frontiers or boundaries.

The TRAFFIC symbol copyright and Registered Trademark ownership is held by WWF. TRAFFIC is a joint programme of WWF and IUCN.

**Suggested citation**: Garstecki, T (2006): Implementation of Article 16, Council Regulation (EC) No. 338/97, in the 25 Member States of the European Union. A TRAFFIC Europe Report for the European Commission, Brussels, Belgium.

## CONTENTS

| Acknowledgements   | 1  |
|--|----|
| Executive Summary  | 2  |
| Background and project description   | 3  |
| Objectives   | 4  |
| Comparison of penalties for wildlife trade regulation offences in EU Member States   | 4  |
| Table 1: Comparison of minimum and maximum penalties and seizure/confiscation         powers in relation to Article 16 of EC Regulation 338/97 in EU Member States | 9  |
| Procedures for determining penalties and monetary compensation   | 16 |
| Overview   | 16 |
| 1. Penalties based on the market value and threat status of specimens  | 16 |
| 2. Penalties based on the conservation status of the species involved in the violation   | 18 |
| 3. Procedures to determine the amount of compensation for the environmental damage cause   | d  |
| by wildlife trade violations   | 19 |
| 4. Penalties based on the financial situation of the violator(s)   | 22 |
| Comparison of potential maximum fines for the trade in CITES-listed species with   |    |
| their market values  | 23 |
| Table 2: Indicative market values for specimens of CITES Appendix-listed species   | 25 |
| Penalising wildlife trade crimes in practice   | 34 |
| Education of and information for prosecutors   | 34 |
| Problems related to the prosecution of non-residents   | 36 |
| Recommendations  | 38 |
| Fostering awareness and competence   | 38 |
| Setting of penalties   | 39 |
| Additional administrative instruments  | 40 |
| References   | 41 |

## ACKNOWLEDGEMENTS

TRAFFIC Europe gratefully acknowledges the kind assistance provided by Management and Scientific Authorities of various European Union Member States.

## EXECUTIVE SUMMARY

The implementation of Article 16 of *EC Regulation 338/97* regarding penalties for violations of wildlife trade regulations differs widely throughout the 25 EU Member States. The variation in maximum fines between EU Member States is vast: in some it can be just over EUR1200 and in others up to EUR450 000. Some countries have no upper limit to their fines. Maximum prison sentences range from six months to eight years.

There are also significant differences between EU Member States regarding powers of seizure and confiscation of specimens, funds and equipment involved in illegal wildlife trade, and additional administrative powers to combat wildlife crime, such as suspension of business licences.

These differences are reflected by a wide range of procedures for determining penalties and monetary compensation, which are typically based on one or a combination of the following: (1) the market value of the species concerned (e.g. Italy, Spain), (2) the threat or conservation status of the specimens involved (e.g. Austria, Germany), (3) the estimated cost of measures necessary to compensate for the environmental damage done (e.g. Finland), and (4) the financial situation of the offenders (e.g. Austria, Sweden).

In addition to these differences and inconsistencies between national legislation, there are several challenges to the enforcement of wildlife trade regulations throughout the EU that need to be addressed: illegal wildlife trade operations conducted by non-residents, a lack of access to relevant technical and legal information for prosecutors and judges, and a general lack of resources for enforcers.

The following recommendations are derived from the analysis: The seriousness of illegal wildlife trade, as well as its organised nature, should be communicated more clearly to both prosecutors and judges. More Member States should consider the establishment of environmental prosecution offices. Penalty ranges should reflect the market value of the specimens involved (as listed in this report), but they should also take into account the conservation value of the species. There should be clear standards throughout EU Member States as to when an infringement is considered merely an administrative offence, and when it is considered a criminal offence.

In order to improve enforcement, the possibility of prosecuting individuals involved in businesses that have been implicated in wildlife trade offences should be considered by all Member States. Some Member States (e.g. Spain) should redraft legislation that protects those who purchase smuggled goods from seizure and confiscation.

Enforcement agencies and prosecutors should be empowered to seize and confiscate not only the specimens involved, but also the funds and equipment used for illegal activities. Legally registered businesses could be deterred from engaging in illegal activities by the threat of licence suspension.

#### BACKGROUND AND PROJECT DESCRIPTION

The international trade in endangered species of wild fauna and flora can cause serious damage to biodiversity, the functioning of ecosystems and the ecosystem services they provide. This threat was acknowledged and addressed in the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which provided a framework under which the international trade in certain species from the whole or part of their range that does not follow the provisions of CITES can be defined as illegal. CITES is implemented within the EU by Council Regulation (EC) No. 338/97 (hereafter EC Regulation 338/97) and Commission Regulation (EC) No. 865/2006. With regard to illegal wildlife trade, Article 16 of EC Regulation 338/97 stipulates that EU Member States shall impose penalties for defined wildlife trade infringements:

Article 16.1: "Member States shall take appropriate measures to ensure the imposition of sanctions for at least the following infringements of this Regulation..." (infringements noted in Article 16.1 from a) to m) include: shipment of specimens into or out of the Community without the correct documentation; falsifying applications and documentation; breaching permit conditions; and commercial trade in Annex A specimens without exemption certificates).

Article 16.2: "The measures referred to in paragraph 1 shall be appropriate to the nature and gravity of the infringement and shall include provisions relating to the seizure and, where appropriate, confiscation of specimens."

Article 16.2. leaves it to individual Member States to define which sanctions they consider appropriate. As a result, there are considerable differences between sanctions prescribed in the various Member States. This shortcoming has been highlighted by the CITES Secretary General: "... Regulation 338/97 contains quite an innovative provision, which obliges Member States to take appropriate measures to ensure the imposition of sanctions for at least the long list of infringements that is contained in its Article 16. Every Member State has the legislation which specifies these penalties and powers. But there are important differences in maximum sanctions that can be imposed and, of course, to have appropriate levels of sanctions is one thing; another is to have them applied" (Wijnstekers, 2003). The recent accession of new Member States to the EU has further increased the potential for heterogeneity regarding the implementation of Article 16.

To increase knowledge of and prompt action on these shortcomings, TRAFFIC and The World Conservation Union (IUCN), with the support of the European Commission, undertook a study to "… research and compile information to develop recommendations that will help to improve the administrative and judicial oversight of enforcement actions, sanctions, and penalties relating to

wildlife trade" (Anton *et al.*, 2002). The results were presented and discussed at the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU, held in Frankfurt in November 2001. In 2004, TRAFFIC undertook a similar study reviewing penalties and enforcement practices in the new EU Member States and in some Accession States, such as Bulgaria and Romania, and presented the outcome of this at a two-day workshop in Budapest. The achievements of these workshops not withstanding, the current situation requires a thorough review and comparison of the implementation of Article 16 of EC Regulation 338/97 in EU Member States, together with an overall evaluation of the implementation of this Article.

#### Objectives

The aim of this report is to compare the implementation of Article 16 of EC Regulation 338/97, and related enforcement aspects, among the 25 EU Member States. This will aid in identifying discrepancies between Member States, and to help identify possible loopholes within Member States national legislation.

Different procedures currently in use for calculating monetary compensation in the EU Member States will be explored and compared. Market values for a number of animal species will be obtained for comparison with possible and imposed penalties. The findings of the report are summarized and discussed with a particular focus on discrepancies of penalties between Member States, as well as existing approaches to the economic and intrinsic value of specimens in trade. Recommendations related to the prosecution of wildlife trade offences in EU Member States are derived from the analysis.

# COMPARISON OF PENALTIES FOR WILDLIFE TRADE REGULATION OFFENCES IN EU MEMBER STATES

A comparison of penalties for wildlife trade offences in EU Member States shows that there is a wide variation in fines and prison sentences. This is illustrated in Table 1, which summarizes minimum and maximum penalties and lists the underlying legislation for each Member State. Where appropriate, additional information is included about legal provisions to seize and confiscate specimens, equipment and funds involved in wildlife trade offences. Penalties applied to wildlife trade offences vary widely throughout the EU: for example, the maximum fine for wildlife offences in Poland is EUR1293 (for minor offences), in Italy it is EUR75 000 and in the UK there is no upper limit. Maximum prison sentences for wildlife trade offences range from six months (Luxembourg) to eight years in several of the new Member States.

Member States class wildlife offences differently, and use different laws to set out penalties. In Portugal, for instance, wildlife trade regulation offences, however severe, are not classed as crimes, and therefore are subject only to administrative penalties (Wijnstekers, 2003).

Penalties for EU wildlife trade regulation offences in some countries also vary depending on the national legislation applicable to the offence: the three main types of legislation to address wildlife trade offences are:

- (1) environmental and conservation laws and decrees
- (2) Customs laws
- (3) penal laws.

In some Member States the different laws simply coexist and overlap - to a varying degree - in their applicability to wildlife offences or cover different degrees of severity, whereas in others, they explicitly refer to each other. An example of the former situation is Greece, where the agriculture and forestry laws 2637/1998 and 3208/2003 impose penalties for CITES offences that are also subject to fines under Greek Customs law (Parry-Jones and Knapp, 2005). Similarly, wildlife trade offences potentially carry penalties both under conservation law (Bundesnaturschutzgesetz) and under penal law (Strafgesetzbuch) in Germany (Seelig, 2002). In Finland, however, those committing offences under the Finnish *Nature Conservation Act* will be sentenced under that Act unless the action is also punishable as a nature conservation offence according to the Criminal Code. The Criminal Code covers offences such as illegal import and export of species listed in the Annexes of EC Regulation 338/97 (Hollo, 2002). Violation of the provisions of the *Nature Conservation Act* and/or the Criminal Code does not, however, preclude the imposition of sanctions for violation of other laws, such as the Customs Act, for the same offence.

There are also considerable discrepancies regarding the seizure and confiscation of specimens, equipment and profits, with some countries (e.g. Cyprus, Malta) not specifying provisions for any of these and others (e.g. France) granting far-reaching confiscation powers to the responsible authorities. Provisions for the seizure and forfeiture of specimens are of particular importance since - beyond the degree of deterrence provided by fines and prison sentences alone - forfeiture of specimens, equipment and profits can act as an effective deterrent for commercial businesses involved in wildlife trade offences (Wijnstekers, 2003).

# Example: Forfeiture powers used in the UK for the attempted illegal trade in Peregrine Falcons

As the result of an international covert "sting" operation in 1998, a Dutch smuggler who had travelled to Scotland with the intention of buying 16 illegally wild-sourced Peregrine Falcons *Falco peregrinus* was brought to court in the UK. The smuggler was fined the relatively moderate sum of GBP2000, but in addition, the car and another GBP4000 that had been intended to pay for the falcons were forfeited (Anon., 2002). The overall penalty to the smuggler as a result of his illegal activity was therefore considerably higher than the fine alone. This case is also noteworthy for its successful international co-operation and the relatively sophisticated approach of the enforcement agencies.

Another aspect in which the legislation of the various Member States differs widely is the degree of discretion given to judges and prosecutors when dealing with wildlife regulation offences. At one end of the scale, Danish legislation merely states that fines can be used to penalise wildlife trade offences (Hvilsted and Buchholt, 2002). At the opposite end, species-specific fines are prescribed in Portugal, where wildlife trade offences are subject only to administrative penalties such as fines (Amador, 2002). The more discretion a judge is given, the less likely that prosecution outcomes will be uniform at the national level. This adds to the heterogeneity of sanctions at the European level, and requires a good level of knowledge by individual prosecutors and an effective information exchange between them to so appropriate sentencing can occur across the whole of the EU. This issue is discussed in more detail in the section "Wildlife trade penalties in practice".

## Example: Range of penalties for small-scale wildlife infringements in Austria

An example of the potentially wide range of penalties within individual countries is provided by the case of an individual who imported two Hermann's Tortoises *Testudo hermanni* into Austria and received a three-month suspended sentence, whereas a different - but similar - case was dropped. Usually, this kind of offence would have been sanctioned with a fine of approximately EUR70 in Austria (Anton, 2002).

Some countries make a clear distinction in their legislation between wildlife trade regulation offences committed by individuals and by those companies whereas others do not. A distinction between the two appears generally sensible because individuals and companies typically differ both in their motivation to commit wildlife trade offences and sometimes in the scale of their illegal activity. Collectors, who are often involved in non-monetary exchange and trade schemes, typically fall between these categories. In order to focus enforcement efforts with limited resources, it appears desirable to make a clear distinction of offender motivation and type when

penalties are set. There are effective penalties that can be used against businesses, such as the suspension of licences in cases where businesses are involved in both legal and illegal activities. Legal instruments of this type are available in Denmark and France (Wijnstekers, 2003). Another example is the legislation against "illegal taxidermy" in Denmark and Italy, under which taxidermy using illegally traded specimens is an offence itself, and can result in licence suspension if performed by otherwise legal taxidermists. This establishes an effective deterrent against illegal activities being performed by generally legally operating taxidermy businesses (Young, 2002).

In the context of the distinction between individual offenders and companies, it would be helpful to clarify which individuals within companies involved in illegal activities can be made liable or prosecuted for these activities. One example where specific penalties are defined for individuals within companies and other legal entities is the legislation implementing EC Regulation 338/97 in Slovenia, where the maximum fine for offences committed by responsible persons within legal entities is set between those for individuals and those for businesses (Parry-Jones and Knapp, 2005).

Small-scale individual wildlife trade offences can pose a threat as serious as illegal business activities. An example is the threat to many species of sturgeon from illegal caviar export. Since the late 1990s, caviar purchased and exported by tourists - in excess of the legal allowance - from small-time sellers has been considered as damaging to the highly endangered sturgeon species as more organized illegal trade (Young, 2002). In Germany, 6000 kg of caviar were seized - mainly in small batches brought by tourists in their luggage - during 2000 alone (Anon., 2002a). A big increase in small-scale illegal caviar imports (mainly from Azerbaijan, Iran, Moldavia, Romania, Russia and Uzbekistan) was also reported from Italy (Anon., 2002b). Although the contribution of large-scale illegal trade to the total has since increased (Anon., 2005a), examples like these should be taken into account when a distinction between penalising individual and commercial wildlife trade offences is made.

Individuals without criminal intent play an important role in illegal wildlife activities, not only as small scale illegal exporters and importers, but also by purchasing illegally imported specimens once they have entered their country of destination. Some Member States do not take this contribution sufficiently seriously: in Spain, smuggled goods, where they can generally be legally possessed in the country, and have been purchased in good faith, may not be seized or confiscated (Young, 2002). Regulations like this do not effectively deter wildlife smuggling.

While the examples above show that individual wildlife trade offences require an appropriate range of penalties, enforcing the law is left to the discretion of enforcement officers, who often work under considerable time and resource constraints. In these circumstances, a focus of resources on serious offences and a less stringent, easily applicable approach to minor infringements - using confiscation and/or summary fines, for instance - often appears appropriate,

and conveys an image of "measured responses" to the general public. Such an image may improve the public acceptance of wildlife trade penalties.

## Generally accepted explanation of terms used in the EU

(N.Crampton, UK Crown Prosecutor *in litt.* to S. Pendry TRAFFIC International, 30.5.2006)

**Seizure:** temporary withdrawal of a specimen or of equipment suspected to be involved in an offence by law enforcement authorities as evidence, or pending a final decision about confiscation.

**Confiscation:** irreversible withdrawal of a specimen or of equipment involved in an offence by law enforcement authorities, possibly following seizure; based on administrative procedures or court decisions.

**Forfeiture:** loss of ownership of the object, whether seized or not, also defined as deprivation of 'rights in the property'. This can only be as a result of a court order in either civil or criminal proceedings.

**Table 1.** Comparison of minimum and maximum penalties and seizure/confiscation powers in relation to Article 16 of EC Regulation 338/97 in EU Member States.

| Country           | Legislation   | Fines (EUR, persons) | private    | Fines (EUR,      | , businesses) | Imprisonment           | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources  |
|-------------------|---|----------------------|------------|------------------|---------------|------------------------|----------------------|---|---|
|                   |   | Min.                 | Max.       | Min.             | Max.          |                        |                      |   |   |
| Austria           | Federal Law about the Trade in<br>Specimens of wild fauna and flora -<br>Artenhandelsgesetz (1998)  | 1 453.50             | 36 340     | 1 453.50         | 36 340        | up to 2 years          | Yes                  | Customs and other state<br>authorities  | also seizure of equipment, e. g. containers, and<br>claims for storage, transport etc. of confiscated<br>specimens possible; criminal fines based on day<br>penalties (max. 360 days); administrative fines<br>depend on which EC Annex specimens are<br>listed (9, 17) |
| Belgium           | Programme Law, 27 Dec2004, Article<br>127 (2004), detailing sanctions regarding<br>Framework Law of Jul 28, 1981, and<br>Royal Decree of 9 Apr 2003 on the<br>Protection of Species of Wild Flora and<br>Fauna by Controlling their Trade | 1000                 | 50 000     | 1000             | 50 000        | 6 months to 5<br>years | Yes                  | Customs, police,<br>environmental agency<br>officers, federal veterinary<br>service       | also claims for transport, storage etc. possible (4, 9)   |
| Cyprus            | Law on the Protection and Management<br>of Nature and Wildlife (No. 153(I)/2003);<br>supplementd by Customs Code Law<br>No.94(1)/2004 and Law for the<br>Protection, Health and Welfare of<br>Animals (No. 1994 46(I)/1994)               | not<br>specified     | Ca. 17 500 | not<br>specified | ca. 17 500    | up to 3 years          | Yes                  | Customs, also police  | (9)   |
| Czech<br>Republic | Act on Trade in Endangered Species,<br>2004   | not<br>specified     | 6250       | not<br>specified | 46 875        | up to 8 years          | Yes                  | Customs, environmental inspectorate   | (7,9)   |
|                   | Criminal Code as amended by the Act<br>No. 134/2002 (2002)  | n. a.                | n. a.      | n. a.            | 156 250       | up to 8 years          | Yes                  |   | maximum sentences in case of international organised crime (7, 9)   |
| Denmark           | Nature Protection Act (1997)  | variable             | variable   | variable         | variable      | up to 1.5 years        | Yes                  | Court of Justice, police (also<br>Customs administration and<br>Forest and Nature Agency) | fines depend on EC Annex where species is<br>listed and market value; fines especially high<br>for violations with a commercial purpose;<br>additional claims for transport, storage etc. of<br>seized specimens possible ( $6, 9$ )                                    |
|                   | Ministry of Environment and Energy<br>Statuary Order No. 84 (2002)  | variable             | variable   | variable         | variable      | n. a.                  | No                   |   | no set minimum or maximum sanctions based<br>on Statuary Order (9)  |

| Country | Legislation   | Fines (EUR, persons) | private          | Fines (EUR       | , businesses)    | Imprisonment   | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources   |
|---------|---|----------------------|------------------|------------------|------------------|--|----------------------|---|--|
|         |   | Min.                 | Max.             | Min.             | Max.             | +  |                      |   |  |
| Estonia | Nature Conservation Law (2004);<br>supplemented by Code of Misdemeanour<br>Procedure, Customs Act (2004), Animal<br>Protection Act (2001), Penal Code | not<br>specified     | 1150             | not<br>specified | 3200             | not specified  | Yes                  | Environmental Inspectorate<br>(seizure), based on court<br>decision (confiscation),<br>Customs            | (7, 9)   |
|         | Reg. No. 69   | ca. 12               | Ca. 65 000       | ca. 12           | ca. 65 000       | n. a.  | Yes                  | -   | compensation for environmental damage caused<br>by infringement of 338/97 ( <b>9</b> )   |
|         | Penal Code  | not<br>specified     | not<br>specified | not<br>specified | not<br>specified | up to 5 years  | Yes                  | -   | for attempts of evading detection; maximum sentence for infringement carried out by a group, or by officials taking advantage of their position $(7, 9)$ |
| Finland | Section 58/59 of Nature Conservation<br>Act, referring to Criminal Code Chapter<br>48, sections 1-5   | 16.00                | 9500             | 16.00            | 9500             | up to 2 years (6<br>years in severe<br>cases)                  |                      | Customs   | defined formula for calculation od<br>compensation; gains from infringement<br>"forfeited" (5, 9, 16)  |
| France  | Environmental Code, Article L415-3 to 415-5   | not<br>specified     | 9000             | not<br>specified | 9000             | up to 6 months   | Yes <sup>2</sup>     | Criminal investigation<br>detectives, Customs   | also seizure of equipment, including vehicles (9, 12)  |
|         | Customs Code, Article 414   | variable             | variable         | variable         | variable         | up to 3 years (10<br>years in<br>exceptional<br>circumstances) |                      | -   | fines estimated from specimen value;<br>exceptional circumstances: e. g. organised<br>crime; also seizure of equipment, including<br>vehicles (9, 12)    |
| Germany | Federal Nature Conservation Act, §65<br>para. 3   | not<br>specified     | 50 000           | not<br>specified | 50 000           | n. a.  | Yes <sup>2</sup>     | Customs, law enforcement<br>agencies of the states<br>(Länder), Federal Agency<br>for Nature Conservation | Administrative offences (9, 10)  |
|         | Federal Nature Conservation Act, § 65 para. 3 and §66   | not<br>specified     | not<br>specified | not<br>specified | Not<br>specified | up to 5 years  | No                   |   | criminal offences; fines given as day fines (9, 15)  |
| Greece  | Law 2637/1998 and Law 3208/2003   | 587                  | 14 674           | 587              | 14 674           | 1 month to 2<br>years  | Yes                  | Forest or Customs<br>authorities  | (9)  |
|         | Customs Code  | 3000                 | 3000             | 3000             | 3000             | n.a.   | Yes                  |   | also three times the amount of evaded taxes and<br>duties (at least EUR1 500), specimens or<br>samples of wild flora or fauna (9)                        |

| Country | Legislation   | Fines (EUR, persons) | private                | Fines (EUR,      | businesses)            | Imprisonment   | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources  |
|---------|---|----------------------|------------------------|------------------|------------------------|--|----------------------|---|---|
|         |   | Min.                 | Max.                   | Min.             | Max.                   |  |                      |   |   |
| Hungary | Government Decree No. 271/2002<br>(XII.20.) on the Implementation and<br>Enforcement of CITES (2002), as<br>amended by Government Decree<br>283/2004  | 20                   | 4000                   | 20               | 4000                   | n. a.  |                      | Environmental,<br>Conservation and Water<br>Management Inspectorates<br>and Nature Protection<br>Guards (seizure;<br>confirmation by court<br>necessary for confiscation),<br>Customs | fines per specimen; additional claims for<br>storage, transport etc. of confiscated specimens<br>possible (7, 9)                          |
|         | Penal Code  | n. a.                | n. a.                  | n. a.            | n. a.                  | up to 5 years  | Yes                  |   | (9)   |
| Ireland | Wildlife Act (1976), Wildlife<br>Amendment Act (2000) Section 68  | not<br>specified     | ca. 1900               | not<br>specified | ca. 1900               | up to 12 months  | Yes <sup>1</sup>     | Customs, Garda Síochána<br>and other authorized<br>persons (seizure),<br>"appropriate" courts<br>(forfeiture)   | on summary conviction; also discretionary<br>forfeiture of equipment, including vehicles (9,<br>13)                                       |
|         | Wildlife Act (1976), Wildlife<br>Amendment Act (2000) Section 68  | not<br>specified     | Ca. 63 500             | not<br>specified | ca. 63 500             | up to 2 years  | Yes <sup>1</sup>     |   | on conviction on indictment; also discretionary<br>forfeiture of equipment, including vehicles (9,<br>13)                                 |
| Italy   | Law 150/92 and amendments   | 2 000                | 75 000                 | 2 000            | 75 000                 | 3 months to 1<br>year                                  | No                   | Police and administrative<br>authorities, such as Forest<br>Corps (seizure)   | (9)   |
|         | Law 150/92 and amendments   | 1 003                | 9296                   | 1003             | 9296                   | n. a.  | Yes <sup>2</sup>     |   | administrative offences (3)   |
|         | Law 150/92 and amendments   | 7747                 | 103 290 or<br>variable | 7747             | 103 290 or<br>variable | 3 months to 1<br>year (2 years for<br>second offences) | Yes <sup>2</sup>     |   | criminal offences; maximum fines for re-<br>offenders up to six times specimen value; also<br>license suspension for commercial firms (3) |
| Latvia  | Law on 1973 Washington Convention (1997)  | not<br>specified     | 441                    | not<br>specified | 8824                   | n. a.  | No                   | State Environmental<br>Service, police, Customs   | (7)   |
|         | Various laws, including Customs<br>Regulations  | 15                   | 750                    | 75               | 9000                   | n. a.  | Yes                  | -   | (9)   |
|         | Criminal Law (1998)   | not<br>specified     | 14 400                 | not<br>specified | 14 400                 | up to 5 years  | Yes                  |   | fine estimated for 2004 (9)   |
|         | Administrative Violations Code (1985),<br>amendments Articles 77-78, Article 79<br>(2003), establishing fines for Animal<br>Protection Law (1999) and Species and<br>Biotope Protection Law | 15                   | 750                    | 75               | 9000                   | n. a.  | No                   |   | (7)   |

| Country     | Legislation  | Fines (EUR, persons) | private          | Fines (EUR       | , businesses)  | Imprisonment          | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources                                     |
|-------------|--|----------------------|------------------|------------------|--|-----------------------|----------------------|---|--|
|             |  | Min.                 | Max.             | Min.             | Max.   |                       |                      |   |  |
| Lithuania   | Administrative Law Violations Code No.<br>X-4449 (1984), specifying penalties<br>relating to Act on the Ratification of<br>CITES No. IX-337, supplemented by<br>various other laws | not<br>specified     | 6392             | n.a.             | n.a.   | n. a.                 | Yes                  | Customs (seizure)   | (7)  |
|             | Penal Code No. VIII-1968 (2000)  | not<br>specified     | 9250             | not<br>specified | 9250   | up to 8 years         | Yes                  |   | for smuggling (9)  |
|             | Penal Code No. VIII-1968 (2000)  | n.a.                 | n.a.             | n.a.             | n.a.   | up to 4 years         | Yes                  | -   | for illegal activities related to wildlife (9)           |
| Luxembourg  | Article 12, Law of 21 Apr 1989, which<br>completes and amends the Law of 19 Feb<br>1975  | 62.50                | 25 000           | 62.50            | 25 000   | 8 days to 6<br>months | Yes <sup>2</sup>     | Police, Customs, veterinary<br>and agricultural authorities<br>(followed by confirmation<br>by judge) | also claims for transport, storage etc. possible (9, 11) |
|             | Articles 44-47, Law on the Protection of<br>Nature and Natural Resources of 11 Aug<br>1982 and Law Aiming to Protect the Life<br>and Welfare of Animals from 15 Mar<br>1983        | not<br>specified     | not<br>specified | not<br>specified | not<br>specified                                     | 8 days to 6<br>months | No                   |   | (9,11)   |
| Malta       | Environment Protection Act, (CAP. 435),<br>Trade in Species of Fauna and Flora<br>Regulations (2004)   | 465                  | 4650             | n. a.            | n. a.  | 1 month to 2<br>years | No                   |   | (7)  |
|             | Trade in Species of Fauna and Flora<br>Regulations (2004)  | 497                  | 4967             | 497              | 4967   | 1 month to 2<br>years | No                   |   | (9)  |
| Netherlands | Act on Economic Offences, amended 31<br>Oct (2002)   | not<br>specified     | 45 000           | not<br>specified | 450 000  | up to 6 years         | No                   | Ministry for Agriculture,<br>Nature and Food Quality  | (9)  |
|             | Flora and Fauna Act, amended 24 Apr<br>(2002)  |                      |                  |                  | confiscation for return to the country of origin (7) |                       |                      |   |  |

| Country  | Legislation  | Fines (EUR, persons) | private | Fines (EUR | , businesses)           | Imprisonment           | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources  |
|----------|--|----------------------|---------|------------|-------------------------|------------------------|----------------------|---|---|
|          |  | Min.                 | Max.    | Min.       | Max.                    | +                      |                      |   |   |
| Poland   | (Minor) offences<br>Nature Conservation Act (2004) Articles<br>127-131, supplemented by Regulation of<br>the Minister of the Environment on<br>Protected Indigenous Animals (2004),<br>Animal Protection Act (1997), Act on<br>Penal Liability of the Collective Persons<br>(2002) and Penal Code (1997) Offences<br>described in art. 127 and 131 | 5                    | 1250    | 5          | 1250                    | up to 30 days          | Yes                  | Customs and Police<br>(seizure, court confirmation<br>required for confiscation)                | minor offences (7, 9, 18)   |
|          |  | 5                    | 180 000 | 5          | 180 000 /<br>unlimited; | 3 months to 5<br>years | Yes                  | Customs and Police<br>(seizure, court confirmation<br>required for confiscation)                | offender can be ordered to also pay costs for<br>return to country of origin; additional<br>compensation payment of up to 2,586 Euro<br>towards conservation also possible (7, 9, 18)<br>If Act on Penal Liability of the Collective<br>persons can be applied (for falsification or<br>alteration of a permit; making a false<br>declaration in order to obtain a permit or<br>certificate; making false import notification;<br>participating in an organized group or<br>association for the purpose of committing<br>offences) the fine amount is calculated as a<br>percentage of annual income, up to 10%, but no<br>less than 250 EUR and no more than<br>EUR 5 000 000. |
| Portugal | Law Decree 114/90, Article 32/1  | 75                   | 2494    | 450        | 29 928                  | n.a.                   | Yes                  | Institute for the<br>Conservation of Nature, in<br>cooperation with Customs<br>when appropriate | CITES infringements not classified as crimes;<br>fines depend on EC Annex where species is<br>listed (1, 9)   |
| Slovakia | Act on the Protection of Species of Wild<br>Fauna and Flora by Regulating Trade<br>Therein (2004), and Regulation on<br>implementation of some Provisions of the<br>Act on Protection of Species of Wild<br>Fauna and Flora by Regulating Trade<br>Therein (2005)  | 12.50                | 7150    | 250        | ca. 24 000              | n. a.                  | Yes                  | Environmental Inspectorate,<br>Customs, police  | (7,9)   |
|          | Criminal law   | n. a.                | n. a.   | n. a.      | n. a.                   | up to 8 years          | Yes                  |   | (7,9)   |

| Country  | Legislation   | Fines (EUR, persons)  | · / •    |                  | Fines (EUR, businesses)   |                            | Seizure of specimens | Authorised to seize and confiscate  | Comments and sources   |
|----------|---|---|----------|------------------|---|----------------------------|----------------------|---|--|
|          |   | Min.  | Max.     | Min.             | Max.  |                            |                      |   |  |
| Slovenia | Nature Conservation Act (2002),<br>supplemented by various other laws   | 83  | 20 800   | 4160             | 41 600  | n. a.                      | Yes                  | Customs, inspectorate<br>according to the Nature<br>Conservation Act                                  | Also seizure of equipment (7, 9)   |
|          | Decree on the Course and Conduct of<br>Protection Measures in the Trade in<br>Animal and Plant Species, Art. 40   | 625   | 16 600   | 25 000           | 33 000  | n. a.                      | Yes                  |   | (7,9)  |
|          | Customs Act   | 126   | 1890     | n. a.            | n. a.   | n. a.                      | No                   | -   | fines estimated for 2004 (7)   |
|          | Penal Code of the Republic of Slovenia (2004)   | ode of the Republic of Slovenian. a.n. a.n. a.n. a.up to 3 years (or<br>5 years)Yes |          | -                | 5 years in exceptional cases: e. g. organized crime; also seizure of equipment (7, 9) |                            |                      |   |  |
| Spain    | Criminal Code (1882), Articles 332 and 334  | not<br>specified  | 41 265   | not<br>specified | 41 265  | 6 months to 2<br>years     | No                   | Customs (administrative),<br>Customs Vigilance Service<br>together with Judicial Police<br>(offences) | fines based on day-fines (of 8-24 months);<br>penalties partly depend on threat status of<br>species; civil liability also applies ( <b>2</b> , <b>9</b> ) |
|          | Organic Law 12/1995 of 12 Dec (1995),<br>to Deter Smuggling, Article 3  | variable  | variable | variable         | variable  | not specified<br>("minor") | Yes                  |   | fines of one to three times the value of the smuggled goods; also confiscation of equipment, including vehicles, and profits possible $(2, 9)$             |
| Sweden   | Environmental Code, §8 point 11 and §9<br>point 11, detailing sanctions regarding<br>Regulations on Trade and other Activities<br>Exemplars of Wild Living Species of<br>Animals or Plants Needing Protection | variable  | variable | variable         | variable  | up to 2 years              | No                   | Customs, Coast Guard, police  | fines given as day fines (30-150) (8, 9)   |
|          | Act of Penalties in Connection with<br>Smuggling  | variable  | variable | variable         | variable  | up to 6 years              | Yes                  |   | maximum sentence in case of severe<br>smuggling; fines for lesser offences given as<br>day fines (30-150); also confiscation of gains<br>possible (8)      |

| Country | Legislation   | Fines (EUR, persons) | private   | Fines (EUR, businesses) |           | Imprisonment   | Seizure of specimens | Authorised to seize and confiscate   | Comments and sources  |
|---------|---|----------------------|-----------|-------------------------|-----------|----------------|----------------------|--|---|
|         |   | Min.                 | Max.      | Min.                    | Max.      |                |                      |  |   |
| UK      | Control of Trade in Endangered Species<br>(Enforcement) (Amendment) Regulations<br>(2005) | not<br>specified     | 5000      | not<br>specified        | 5000      | up to 6 months | Yes                  | HM Revenue and Customs,<br>police, potentially assisted<br>by Department for<br>Environment, Food and<br>Rural Affairs | magistrates court; also discretionary powers to confiscate equipment, including vehicles (9, 14)  |
|         | Control of Trade in Endangered Species<br>(Enforcement) (Amendment) Regulations<br>(2005) | not<br>specified     | unlimited | not<br>specified        | unlimited | up to 5 years  | Yes <sup>1</sup>     |  | crown court; also discretionary powers to confiscate equipment, including vehicles (9, 14)  |
|         | Customs and Excise Management Act (1979)  | n. a.                | unlimited | n. a.                   | unlimited | up to 7 years  | Yes <sup>1</sup>     |  | crown court; also discretionary powers to<br>confiscate equipment, including vehicles;<br>(summary conviction: up to 3 x value of<br>specimen or minimum penalty, whichever is the<br>higher) (9, 14) |

11 Seelig (2002c) 12 Shine (2002a)

Notes:

1 ... forfeiture

 $2\,\ldots\,confiscation$ 

No footnote in "seizure" column... seizure only

**Variable** ... fine or sentence depends on value of specimen, monetary situation of the offender, or other factors.

Sources of information

#### (details: see reference list)

- 1 Amador (2002)
- **2** Barreira (2002)
- 3 Cirelli (2002)
- 4 Francis (2002)
- 5 Hollo (2002)

**6** Hvilsted and Buchholt (2002)

7 Kecse-Nagy et al. (2005)

8 Michanek (2002)

9 Parry-Jones and Knapp (2005)

10 Seelig (2002b)

*13* Shine (2002b)*14* Shine (2002c)*15* www.cites-online.de

16 www.finlex.fi

- 17 www.lebensministerium.at/CITES
- 18 Romanowicz (2006) pers. com.

Implementation of Article 16, EC Regulation 338/97, in the 25 Member States of the European Union 15

## PROCEDURES FOR DETERMINING PENALTIES AND MONETARY COMPENSATION

#### Overview

Some Member States (e.g. Denmark) do not specify the amount of fines in their legislation, leaving it to the discretion of the relevant authorities or judges. Other Member States specify minimum and maximum fines without indicating how they should be applied. In those countries where procedures to calculate monetary fines are explicitly described in the legislation, these procedures are generally based on one or a combination of the following four factors:

- 1. The market value of the specimens involved in the offence
- 2. The threat or conservation status of the specimens involved in the offence
- 3. The estimated cost of measures necessary to compensate for the environmental damage caused by the offence
- 4. The financial situation of the offending person(s) or business(es), where applicable

These factors are considered in different combinations in the legislation of different Member States. The scale and severity of the offence and the degree of "criminal intent" (e.g. organised versus individual offences, first versus subsequent offences, crimes by individuals versus companies etc.) are sometimes also considered. As a consequence of this multitude of factors, and of the lack of explicit procedures in other Member States, penalisation via monetary fines within the EU varies widely.

#### 1. Penalties based on the market value and threat status of specimens

Among countries where penalties are expressed as multiples of the market value of the specimens, such multiples range from one times the market value (e.g. Spanish anti-smuggling legislation, minor offences) to three (e.g. UK Customs law, Spanish anti-smuggling legislation, very serious offences), four (i.e. *Italian Law 150/1992*, repeat offences), and six (e.g. *Italian Law 150/1992*, repeat offences). In some cases (e.g. Italy, UK) these multiples are applied only if they exceed a prescribed minimum sum.

The Italian system is an example of using a combination of both the market value of the species involved in the offence and the threat status of the species: the maximum penalty for offences involving species that are listed in Annex A of *EC Regulation No. 338/97* is six times their value, whereas the maximum penalty involving species listed in Annex B and C of the Regulation is only four times their value (Cirelli, 2002). A similar system - although not explicitly stated in the

relevant legislation - is used for penalising intentional and/or commercially motivated offences in Denmark. These are usually punished with confiscation and a fine that equals the market value for EC Annex B species and two to three times the market value for EC Annex A species (Hvilsted and Buchholt, 2002).

If applied effectively, penalties based on the market value of specimens involved in illegal trade can be effective deterrents for commercial businesses, as they can make illegal trade operations unprofitable as businesses. However, such penalties only take into account the threat status of the species involved and the environmental damage caused by offences to the extent to which they are reflected by market values. It is possible that wildlife trade offences involving highly endangered species with a low market value might result in an inappropriate penalty (from a conservation point of view). One such example is the Spur-thighed Tortoise *Testudo graeca* (classified by 2006 IUCN Red List of Threatened Species as Vulnerable) which has a much lower market value than other species which are listed in Annex A (Nuňez-Román, 2002). However, inadequate penalties are also given for high-value species to the extent that potential profits far exceed any possible fine (see box below). A combination of the monetary value of the specimens that are the subject of the offence and the corresponding species' threat status - possibly using different multiplication factors for different threat categories as in the Italian example - would be one way to avoid such a problem.

#### Example: Inadequate penalties for the illegal commercial trade in shahtoosh shawls

In 2000, a London company pleaded guilty to illegally offering for sale 138 shahtoosh shawls, which are made of the CITES Appendix I and EC Regulation 338/97 Annex A-listed Tibetan Antelope *Pantholops hodgsonii*. The company was fined only GBP1500, in addition to forfeiture of the merchandise, although the market value of the shawls was estimated at GBP353 000 (Anon., 2002c). The illegal import of the same shawls into, for instance, Italy, might have carried a maximum fine of more than three million euros, i.e. more than 1000 times the actual fine in this case. Although the merchandise was forfeited once the illegal activities had been discovered, it is clear that insignificant fines like this have little deterrent effect, and in fact can be regarded merely as an insignificant cost of doing business.

One important prerequisite for measuring fines based on the value of the specimens involved is that their market value (both black market and legal market if one exists) is known to prosecutors and judges. A big step in this direction would be the publication of known market values, e.g. on a secure online database, and dissemination of such information to, for example, the International Association of Prosecutors. The information compiled in Table 2 of this report could be used as a starting point for such a compilation. In order to make the information contained in such a database formally admissible in court, Member States should consider an evaluation or certification system for the information (Anton, 2002). However, caution should be exercised in this regard – it is important that such a database remains within the enforcement arena, to avoid the possibility that such information could stimulate illegal trade in high value species. It would also need to be updated regularly, as prices and values can change rapidly.

#### Example: Lack of appreciation of specimens market values

A German citizen kept 11 monkeys (including one Annex A-listed Chimpanzee *Pan troglodytes*) and 18 birds (including six Annex A-listed Palm Cockatoos *Prosciger aterrimus*) in his garden in Spain without proper documentation. Based on an initial estimate of the monetary value of these animals of more than EUR18 030, judicial procedures were initiated in 1994. In 1996, however, the judge decided that the value of the specimens was less, quashed the case and ordered the specimens to be returned to the owner. It was not established what the re-evaluation of the specimens' value was based on (Nuňez-Román, 2002). The fact that - following political pressure from NGOs - the specimens were finally re-seized and the owner ordered to pay an administrative fine does not change the underlying problem caused by insufficient appreciation of the monetary value of the specimens in this case, and of the long-term and sometimes irreversible negative impacts of the trade on species' populations.

## 2. Penalties based on the conservation status of the species involved in the offence

In addition to countries which consider the conservation status of the species in conjunction with their market value, as discussed above, a number of additional Member States use conservation status alone when setting penalties.

In Austria, the range of penalties for offences involving EC Annex A species is 2.5 times higher than the corresponding range for offences involving Annex B and C species (Seelig, 2002a). In Germany, the maximum imprisonment for criminal offences involving "strictly protected species" (including species listed on Annex A of EC Regulation 338/97 and Appendix IV Council Directive 92/43/EEC, the Habitats Directive) is five years whereas for offences involving other species, it is only three years (Seelig, 2002b).

In Portugal, where wildlife trade infringements are subject to administrative proceedings only, there is a catalogue of fines for infringements involving individual species. The amount of these

fines reflects the threat status of the species involved, e.g. in which EC Annex it is listed (Amador, 2002). However, the resulting fines have been considered relatively low (Wijnstekers, 2003).

Considering the ultimate objective of the EC wildlife trade regulations, the conservation status of species that are the subject of offences should be considered more widely by Member States when sentencing. A promising approach - to combine this objective with disincentives - is the application of fines that are expressed as multiples of the specimen market value, with the applied multiplication factor varying according to the conservation status of the species involved. This approach has been adopted by Italian law (Cirelli, 2002).

## 3. Procedures to determine compensation levels for environmental damage caused by wildlife trade offences

Compensation for environmental damage caused by offences of EC Regulation 338/97 is only one objective of financial penalties, and is often not given as high a priority as a deterrent. In countries where compensation is considered, it can be linked to other wildlife penalties or be treated separately: the legislation of Austria, for instance, states that fines collected for wildlife trade offences should be used for conservation purposes (Artenhandelsgesetz, 1998). A donation to a WWF reptile conservation project has been included as part of a sentence in the Netherlands (Anton, 2002).

According to the Estonian Regulation No. 69 (2005) which provides the legal framework for sanctioning environmental offences, the level of compensation depends on the conservation status and taxonomic group of the species concerned. For example, compensation for a live, wild-sourced Annex A specimen of the family Hominidae or Felidae would be EUR65 000, and for a live, wild-sourced Annex A specimen of Reptilia would be EUR3000. Compensation for caviar has been set at EUR1300 per kg. So far only one compensation claim has been made - EUR65 for an illegally imported live Python *Python* sp. (Alasi, Estonian Ministry of the Environment, Nature Conservation Department, *in litt.*, May 2006).

However, only the *Finnish Nature Conservation Act* (1096/1996) explicitly describes a fixed evaluation technique to calculate compensation sums based on a species' renewal capacity, need of protection and rarity (Miettinen, 2002). The Finnish model - although not exclusively used for trade-related wildlife offences - is therefore the only established explicit model of how to address compensation in wildlife trade offences. Compensation levels are calculated according to the following formula:

 $\mathbf{V} = \mathbf{R} \mathbf{x} \mathbf{S} / \mathbf{P} \mathbf{x} \mathbf{EUR201.60}$ 

where,

V ... monetary value

R ... Renewal capacity (logarithm of species specific weight in grams)

S ... "need of protection" factor, based on IUCN Red List categories (ranging from one for "least concern" species to 20 for "endangered" and "critically endangered" species)

P ... factor for species population size in country concerned (ranging from two for e.g. bird population sizes < 100, to 20 for bird population sizes > one million; different values for mammals)

The value of EUR201.60 is the conversion value that is based on an example (White-tailed Eagle *Haliaeetus albicilla*) where all the variables in the equation (including V) are known. The independently derived monetary value of one White-tailed Eagle that was used as a baseline for this calculation was EUR7392.

The strength of this procedure lies in the fact that it allows for a figure to be applied to compensation claims in a transparent manner. However, the weighting of variables like "need of protection" and population size is somewhat arbitrary, and it is not clear why the conversion value derived from one example species should apply to all other species. There might be species which - due to their specific habitat characteristics or eco-physiology - would require a much higher (or lower) sum to compensate for the environmental damage caused by the loss of individuals. Nonetheless, a more complex model might simply be unworkable and the Finnish model at least provides a good basis for the further development of this approach.

It needs to be emphasized that the primary objective of this procedure is compensation, and not deterrence of wildlife crime. The market value of a species might well be higher than the monetary value as calculated from the above formula, and a penalty based on that market value would therefore be more effective as a deterrent. Compensation schemes like this should therefore be used in conjunction with conventional penalties. Accordingly, the Finnish compensation scheme is used in addition to conventional penalties as set out in the *Nature Conservation Act*. A related approach to the relationship between compensation and penalties in general would be to make any revenue from penalties related to offences of wildlife regulations available for conservation (as in the Austrian example), and to state that the penalty sum should be set based on a compensation formula as above or on a multiple of specimen value, whichever is higher.

Although the Finnish model is the most transparent and systematic approach to quantifying compensation sums for damages caused by wildlife offences, other Member States (e.g. Spain) have lists of species-specific compensation sums (Geysels, 2002). There have also been cases where similar estimates were made by experts involved in court trials. However, in one such case

in Belgium, the resulting estimate was not endorsed by the final court decision (Geysels, 2002). This points to a need for recognized ecological values which could, for instance, be published in legal journals.

## 4. Penalties based on the financial situation of the offender(s)

Wildlife trade legislation of individual Member States is part of the wider legal system of these Member States, and consequently differs in the degree to which the financial situation of individuals is taken into account when penalties are set. The most common instrument in this context is the concept of "day fines": administrative fines and/or sentences are primarily expressed as a number of day-fines, rather than a fixed sum of money, and are only then converted to an actual sum of money based on the value that a day is considered to have to the individual concerned (e.g. based on their income and general financial situation).

Examples of Member States using day-fines are Austria (criminal convictions, maximal 360 day-fines), Germany (criminal offences), Spain (criminal code, 8-24 months) and Sweden (environmental code and anti-smuggling legislation in case of minor offences, 30-150 maximum number of day-fines).

Day fines are considered fairer than fixed fines as they take into account the financial circumstances of the individuals involved in the offences. Therefore, they appear to be an appropriate instrument for individuals involved in small-scale offences of wildlife regulations without a commercial motive.

The application of day-fines results in penalties that are independent of the market value of the specimens involved. Therefore, and in contrast to their applicability to small-scale individual offenders, day fines are not effective against commercial companies in general, and against illegal wildlife trade operations that are aimed at financial profit in particular. This should be taken into consideration when applying penalties based on this approach.

## Example: The distinction between non-commercial and commercial offences of wildlife trade regulations

In practice, it may often be difficult to distinguish between non-commercial offences of wildlife trade regulations on the one hand and commercial offences on the other. An example of this problem is the 1997 case of an individual that was prosecuted in Spain for falsifying an import certificate and importing Aldabra Giant Tortoises *Geochelone gigantea* reportedly with the intention to trade. The case had to be dropped in 1999 because commercial intent could not be proven (Nuňez-Román, 2002).

While incompatible with procedures to determine penalties from the value of the specimens involved in the offence, the day-fine concept could in theory be applied in a way that takes into consideration the conservation status of the species traded.

## COMPARISION OF THE MARKET VALUE OF CITES-LISTED SPECIES WITH POTENTIAL MAXIMUM FINES

As pointed out above, one important pre-requisite for expressing penalties as multiples of the market value of the specimens is access to information about their values. Table 2 lists estimated market values for a range of CITES-listed animal and plant species and products in trade.

Due to the complexity of factors influencing court decisions in individual illegal wildlife trade cases, it is often difficult to compare the actual outcome of such cases with the market value of the specimens involved. However, comparisons of market values on one hand and minimum and maximum sentences, as defined by national legislation, on the other, are more straight-forward.

Variable fines (such as those defined in some British, Italian and Spanish laws), that explicitly refer to the market value of the specimens in question, can simplify the process of finding an adequate fine for a given offence. The question is how fixed fines, as prescribed in the law of many other Member States, compare to market values of wild flora and fauna.

Figure 1 allows both a comparison of maximum fines among Member States and a comparison to the market value of a range of species of wild fauna and products thereof. It is obvious that maximum fines vary extremely widely within the EU: the maximum fine in the Netherlands is 348 times that in Poland. If the approach of using fixed maximum fines is to be maintained at all, they should be harmonised within the EU at values in the upper part of the range shown in Figure 1b.

Most prescribed maximum fines range in the order of a few tens of thousands of euros. This is also the market value range of individual specimens of some of the larger, more iconic species of wildlife (Figure 1a). While it appears adequate - at first glance - to have maximum fines that match the market value of traded specimens, further consideration shows that, in terms of effective deterrence, many of these values are actually very low: in cases where several specimens are involved in the illegal activity, the volume of the transactions may easily exceed all but the highest maximum fines.

Since there is no empirical upper limit to the value involved in illegal wildlife trade operations, there should also be no upper limit to the fines that can be used to penalise such operations. Instead, explicit and transparent rules should link fines to the amount of money involved in illegal

transactions, as is already the case in Britain, Italy and Spain. Such a system would be more likely to act as an efficient economic deterrent.

Although fines are not the only penalty used for wildlife trade offences, and prison sentences on top of monetary fines might partly compensate for the inadequacy of financial penalties, only significant monetary fines – as part of an efficient enforcement system - can serve as a strong enough deterrent.

**Table 2.** Indicative market values for specimens of CITES Appendix-listed species. These prices have been compiled from a range of sources, including from EU Member States and range States, from the mid-1990s to the present day, and are provided only as a guide. EU prices are highlighted in yellow with blue text, range State prices are in red. **PRICE INFORMATION NOT AVAILABLE IN PUBLIC VERSION** 

| Scientific name and taxonomic group | Common name        | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item               | Legal /<br>illegal | EU       | CITES  | Region of origin | Source                  |
|-------------------------------------|--------------------|--|-------------------------|--------------------|----------|--------|------------------|-------------------------|
| MAMMALS                             |                    |  |                         |                    |          |        |                  |                         |
| PRIMATES                            |                    |  |                         |                    |          |        |                  |                         |
| Hominidae                           |                    |  |                         |                    |          |        |                  |                         |
| Pongo pygmaues                      | Orang-outan        |  | Live                    | illegal            | Α        | I      | SE Asia          | Pendry (unpublished)    |
| Pongo pygmaues                      | Orang-outan        |  | Stuffed                 | illegal            | A        | -<br>- | SE Asia          | Pendry (unpublished)    |
| PHOLIDOTA                           | Orang Outan        |  | Standa                  | megui              |          |        | OL ASI           | Tenary (unpublished)    |
| Manidae                             |                    |  |                         |                    |          |        |                  |                         |
| Manis spp.                          | Pangolin           |  | Scales per kg/wholesale | illegal            | В        | II     |                  | Pendry (unpublished)    |
| Manis spp.                          | Pangolin           |  | Scales per kg/retail    | illegal            | B        | II     |                  | Pendry (unpublished)    |
| Manis spp.                          | Pangolin           |  | Scales per kg           | illegal            | B        | П      | Malaysia         | Pendry (unpublished)    |
| CARNIVORA                           | Tangonn            |  | Seales per kg           | megai              | D        | п      | Wataysta         | renary (unpublished)    |
| Canidae                             |                    |  |                         |                    |          |        |                  |                         |
| Canis lupis                         | Wolf (Timber)      |  | Skin                    | legal              | A/B      | I/II   |                  | Anon. (2004b)           |
| Ursidae                             | won (Thilder)      |  | JKII                    | logai              | A/D      | 1/11   |                  | Anon. (20040)           |
| Melursus ursinus                    | Sloth Bear         |  | Head                    | legal              | А        | I      |                  | Anon. (2004b)           |
| Ursus americanus                    | Black Bear         |  | Rug                     | legal              | B        | П      |                  | Anon. (2004b)           |
| Ursus arctos                        | Brown Bear         |  | Skin                    | legal              | A        |        |                  | Anon. (2004b)           |
| Ursus maritimus                     | Polar Bear         |  | Shooting of wild animal | illegal            | B        |        |                  | Fiori and Avanzo (2002) |
| Ursus spp.                          | Bear               |  | Gall bladder            | illegal            | A/B      |        | Asia / America   | Pendry (unpublished)    |
| Ursus spp.                          | Asiatic Black Bear |  | Live cub                | illegal            | A/B<br>A | 1/11   | Asia / America   | Pendry (unpublished)    |
| Ursus thibetanus                    | Asiatic Black Bear |  | Gall bladder            | -                  |          | I      | Asia             |                         |
| Mustelidae                          | Asiauc Diack Deal  |  |                         | illegal            | Α        | 1      | Asia             | Pendry (unpublished)    |
| Mustendae                           | Ottor              |  | Eully mounted           | lagal              | •        | T      |                  | Anon (2004L)            |
|                                     | Otter              |  | Fully mounted           | legal              | Α        | 1      |                  | Anon. (2004b)           |
| Felidae                             |                    |  |                         |                    |          |        |                  | <b>D</b> 1 ( 111 1 1)   |
| Acinonyx jubatus                    | Cheetah            |  | Cub two weeks old       | illegal            | A        | 1      | in UAE           | Pendry (unpublished)    |
| Felis sylvestris                    | Scottish Wildcat   |  | Fully mounted           | legal              | Α        | II     |                  | Anon. (2004b)           |

| Scientific name and taxonomic group | Common name      | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item               | Legal /<br>illegal | EU  | CITES | Region of origin | Source                  |
|-------------------------------------|------------------|--|-------------------------|--------------------|-----|-------|------------------|-------------------------|
| Felis sylvestris                    | Wildcat          |  | Carcass                 | legal              | Α   | Π     |                  | Anon. (2004b)           |
| Lynx rufus                          | Bobcat           |  | Skin                    | legal              | В   | II    |                  | Anon. (2004b)           |
| Panthera leo                        | Lion             |  | Head                    | legal              | A/B | I/II  |                  | Anon. (2004b)           |
| Panthera leo                        | Lion             |  | Rug                     | legal              | A/B | I/II  |                  | Anon. (2004b)           |
| Panthera pardus                     | Leopard          |  | Skin                    | legal              | Α   | Ι     | Africa           | Pendry (unpublished)    |
| Panthera pardus                     | Leopard          |  | Live                    | legal              | Α   | Ι     |                  | Anon. (2004b)           |
| Panthera pardus                     | Leopard          |  | Shooting of wild animal | legal              | Α   | Ι     |                  | Fiori and Avanzo (2002) |
| Panthera tigris                     | Siberian Tiger   |  | Skin                    | illegal            | Α   | Ι     | Russia           | Pendry (unpublished)    |
| Panthera tigris                     | Siberian Tiger   |  | Skull                   | illegal            | Α   | Ι     | Russia           | Pendry (unpublished)    |
| Panthera tigris                     | Tiger            |  | Cub 10 kg               | illegal            | Α   | Ι     | Vietnam          | Pendry (unpublished)    |
| Panthera tigris                     | Tiger            |  | Kg bone                 | illegal            | Α   | Ι     | Vietnam          | Pendry (unpublished)    |
| Panthera tigris                     | Tiger            |  | Head                    | legal              | Α   | Ι     |                  | Anon. (2004b)           |
| Panthera tigris                     | Tiger            |  | Rug                     | legal              | Α   | Ι     |                  | Anon. (2004b)           |
| Panthera tigris                     | Tiger            |  | Shooting of wild animal | illegal            | Α   | Ι     |                  | Fiori and Avanzo (2002) |
| PROBOSCIDEA                         |                  |  |                         |                    |     |       |                  |                         |
| Elephantidae                        |                  |  |                         |                    |     |       |                  |                         |
| Elaphus maximus                     | Asian Elephant   |  | Kg ivory                | illegal            | Α   | Ι     | Asia             | Pendry (unpublished)    |
| Loxodonta africana                  | African Elephant |  | Kg carved ivory         | illegal            | Α   | Ι     | Africa           | Pendry (unpublished)    |
| Loxodonta africana                  | African Elephant |  | Kg ivory                | illegal            | Α   | Ι     | Africa           | Pendry (unpublished)    |
| PERISSODACTYLA                      |                  |  |                         |                    |     |       |                  |                         |
| Rhinocerotidae                      |                  |  |                         |                    |     |       |                  |                         |
| Rhinocerotidae spp.                 | Rhino            |  | Kg horn                 | illegal            | Α   | Ι     | Africa/Asia      | Pendry (unpublished)    |
| Rhinocerotidae spp.                 | Rhino            |  | Kg horn                 | illegal            | Α   | Ι     | Africa/Asia      | Pendry (unpublished)    |
| Rhinocerotidae spp.                 | Rhino            |  | Horn libation cup       | illegal            | Α   | Ι     | Africa/Asia      | Pendry (unpublished)    |
| Rhinocerotidae spp.                 | Rhino            |  | Double horn             | illegal            | Α   | Ι     | Africa/Asia      | Pendry (unpublished)    |
| Rhinocerotidae spp.                 | Rhino            |  | Kg new horn             | illegal            | Α   | Ι     | Africa/Asia      | Pendry (unpublished)    |
| ARTIODACTYLA                        |                  |  |                         |                    |     |       |                  |                         |
| Suidae                              |                  |  |                         |                    |     |       |                  |                         |
| Babyrousa babyrussa                 | Babirusa         |  | Skull                   | illegal            | Α   | Ι     | Sulawesi         | Pendry (unpublished)    |
| Moschidae                           |                  |  |                         |                    |     |       |                  |                         |
| Moschus spp.                        | Musk Deer        |  | Kg musk                 | illegal            | A/B | I/II  | Central Asia     | Pendry (unpublished)    |

| Scientific name and taxonomic<br>group | Common name            | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item               | Legal /<br>illegal | EU  | CITES | Region of origin  | Source                  |
|--|------------------------|--|-------------------------|--------------------|-----|-------|-------------------|-------------------------|
| Bovidae                                |                        |  |                         |                    |     |       |                   |                         |
| Bos gaurus                             | Gaur                   |  | Head                    | legal              | Α   | Ι     |                   | Anon. (2004b)           |
| Bos gaurus                             | Indian Gaur            |  | Shooting of wild animal | illegal            | Α   | Ι     |                   | Fiori and Avanzo (2002) |
| Capra falconeri subspp.                | Markhor                |  | Shooting of wild animal | illegal            | Α   | Ι     |                   | Fiori and Avanzo (2002) |
| Ovis ammon subspp.                     | Argali                 |  | Shooting of wild animal | illegal            | A/B | I/II  |                   | Fiori and Avanzo (2002) |
| Ovis vignei subspp.                    | Urial                  |  | Shooting of wild animal | illegal            | Α   | Ι     |                   | Fiori and Avanzo (2002) |
| Pantholops hodgsoni                    | Shahtoosh (Chiru)      |  | Small Shall             | illegal            | Α   | Ι     | Tibet/China/Nepal | Pendry (unpublished)    |
| BIRDS                                  |                        |  |                         |                    |     |       |                   |                         |
| FALCONIFORMES                          |                        |  |                         |                    |     |       |                   |                         |
| Cathartidae                            |                        |  |                         |                    |     |       |                   |                         |
| Vultur gryphus                         | Andean Condor          |  | Carcass                 | legal              | Α   | Ι     |                   | Anon. (2004b)           |
| Accipitridae                           |                        |  |                         |                    |     |       |                   |                         |
| Accipiter gentilis                     | Goshawk                |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Accipiter nisus                        | Sparrowhawk            |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Aquila chrysaetos                      | Golden Eagle           |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Aquila chrysaetos                      | Golden Eagle           |  | Carcass                 | legal              | Α   | II    |                   | Anon. (2004b)           |
| Aquila chysaetos                       | Golden Eagle           |  | Live                    | illegal            | Α   | II    | UK                | Pendry (unpublished)    |
| Buteo buteo                            | Buzzard                |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Circus aeruginosus                     | Marsh Harrier          |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Circus cyaneus                         | Hen Harrier            |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Haliaeetus albicilla                   | White-tailed Sea Eagle |  | Fully mounted           | legal              | Α   | Ι     |                   | Anon. (2004b)           |
| Pithecophaga jetteryi                  | Philippine Eagle       |  | Skull                   | illegal            | Α   | Ι     | Philippines       | Pendry (unpublished)    |
| Falconidae                             |                        |  |                         |                    |     |       |                   |                         |
| Falco cherrug                          | Mongolian Falcon       |  | Live                    | legal              | В   | II    | Mongolia          | Pendry (unpublished)    |
| Falco columbarius                      | Merlin                 |  | Carcass (male)          | legal              | Α   | II    |                   | Anon. (2004b)           |
| Falco columbarius                      | Merlin                 |  | Carcass (female)        | legal              | Α   | II    |                   | Anon. (2004b)           |
| Falco columbarius                      | Merlin                 |  | Carcass (immature)      | legal              | Α   | II    |                   | Anon. (2004b)           |
| Falco columbarius                      | Merlin                 |  | Fully mounted           | legal              | Α   | II    |                   | Anon. (2004b)           |
| Falco lusticolus                       | Gyr Falcon             |  | Live                    | illegal            | Α   | Ι     |                   | Pendry (unpublished)    |
| Falco peregrinus                       | Peregrine Falcon       |  | Live                    | illegal            | Α   | Ι     | UK/US             | Pendry (unpublished)    |

| Scientific name and taxonomic<br>group | Common name               | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item         | Legal /<br>illegal | EU  | CITES | Region of origin | Source               |
|--|---------------------------|--|-------------------|--------------------|-----|-------|------------------|----------------------|
| Falco peregrinus                       | Peregrine                 |  | Carcass           | legal              | Α   | Ι     |                  | Anon. (2004b)        |
| Falco peregrinus                       | Peregrine                 |  | Fully mounted     | legal              | Α   | Ι     |                  | Anon. (2004b)        |
| Falco rusticolus                       | Gyr                       |  | Fully mounted     | legal              | Α   | Ι     |                  | Anon. (2004b)        |
| Falco subbuteo                         | Hobby                     |  | Carcass (imature) | legal              | Α   | Π     |                  | Anon. (2004b)        |
| Falco subbuteo                         | Hobby                     |  | Carcass (adult)   | legal              | Α   | Π     |                  | Anon. (2004b)        |
| Falco subbuteo                         | Hobby                     |  | Fully mounted     | legal              | Α   | Π     |                  | Anon. (2004b)        |
| Falco tinnunculus                      | Kestrel                   |  | Fully mounted     | legal              | Α   | Π     |                  | Anon. (2004b)        |
| GRUIFORMES                             |                           |  |                   |                    |     |       |                  |                      |
| Gruidae                                |                           |  |                   |                    |     |       |                  |                      |
| Grus grus                              | European Crane            |  | Juvenile          | illegal            | Α   | Π     | Europe           | Pendry (unpublished) |
| PSITTACIFORMES                         |                           |  |                   |                    |     |       |                  |                      |
| Cacatuidae                             |                           |  |                   |                    |     |       |                  |                      |
| Cacatua alba                           | Umbrella Cockatoo         |  | Live              | legal              | В   | Π     |                  | Pendry (unpublished) |
| Cacatua roseicapilla                   | Albino Galah              |  | Pair              | legal              | В   | Π     | Australia        | Pendry (unpublished) |
| Calyptorhynchus banksii                | Red-tailed Black Cockatoo |  | Pair              | illegal            | Α   | Ι     |                  | Pendry (unpublished) |
| Probosciger aterrimus                  | Palm Cockatoo             |  | Live              | illegal            | Α   | Ι     |                  | Pendry (unpublished) |
| Probosciger aterrimus                  | Palm Cockatoo             |  | Live              | legal              | В   | Α     |                  | Pendry (unpublished) |
| Psittacidae                            |                           |  |                   |                    |     |       |                  |                      |
| Alisterus scapularis                   | Australian King Parrot    |  | Pair              | legal              | В   | Π     |                  | Pendry (unpublished) |
| Amazona leucocephala                   | Cuban Amazon              |  |                   | illegal            | Α   | Ι     | Cuba             | Pendry (unpublished) |
| Amazona ochrocephala                   | Yellow-crowned Amazon     |  | Pair              | legal              | A/B | I/II  |                  | Pendry (unpublished) |
| Anodorhynchus hyacinthinus             | Hyacinth Macaw            |  | Live              | illegal            | Α   | Ι     | South America    | Pendry (unpublished) |
| Anodorhynchus leari                    | Lear's Macaw              |  | Pair              | illegal            | Α   | Ι     | South America    | Pendry (unpublished) |
| Anodorhynchus leari                    | Lear's Macaw              |  | Live              | illegal            | Α   | Ι     | South America    | Pendry (unpublished) |
| Ara ararauna                           | Blue and Gold Macaw       |  | Pair and cage     | legal              | В   | Π     |                  | Pendry (unpublished) |
| Ara glaucogularis                      | Blue-throated Macaw       |  | Pair              | legal              | Α   | Ι     | (uplisted COP12) | Pendry (unpublished) |
| Aratinga wagleri                       | Red-fronted Conure        |  | Pair              | legal              | В   | II    |                  | Pendry (unpublished) |
| Poicephalus meyer                      | Meyer's Parrot            |  | Live              | illegal            | В   | II    |                  | Pendry (unpublished) |
| Psittacus erithacus                    | African Grey Parrot       |  | Pair              | legal              | В   | II    | West Africa      | Pendry (unpublished) |
| Psittacus erithacus                    | African Grey Parrot       |  | Adult             | legal              | В   | Π     | West Africa      | Pendry (unpublished) |

| Scientific name and taxonomic<br>group | Common name                          | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item     | Legal /<br>illegal | EU | CITES | Region of origin | Source               |
|--|--------------------------------------|--|---------------|--------------------|----|-------|------------------|----------------------|
| Psittrichas fulgidus                   | Vulturine Parrot (Pesquet<br>Parrot) |  | Pair          | legal              | В  | П     |                  | Pendry (unpublished) |
| STRIGIFORMES                           |                                      |  |               |                    |    |       |                  |                      |
| Tytonidae                              |                                      |  |               |                    |    |       |                  |                      |
| Tyto alba                              | Barn Owl                             |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Strigidae                              |                                      |  |               |                    |    |       |                  |                      |
| Asio flammeus                          | Short-eared Owl                      |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Asio otus                              | Long-eared Owl                       |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Athene noctua                          | Little Owl                           |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Bubo bengalensis                       | Bengal Eagle Owl                     |  | Carcass       | legal              | В  | II    |                  | Anon. (2004b)        |
| Bubo bubo                              | European Eagle Owl                   |  | Carcass       | legal              | Α  | II    |                  | Anon. (2004b)        |
| Bubo bubo                              | European Eagle Owl                   |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Bubo virginianus                       | Great Horned Owl                     |  | Carcass       | legal              | В  | II    |                  | Anon. (2004b)        |
| Nyctea scandiaca                       | Snowy Owl                            |  | Carcass       | legal              | Α  | II    |                  | Anon. (2004b)        |
| Nyctea scandiaca                       | Snowy Owl                            |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Strix aluco                            | Tawny Owl                            |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| Strix nebulosa                         | Great Grey Owl                       |  | Carcass       | legal              | Α  | II    |                  | Anon. (2004b)        |
| Strix nebulosa                         | Great Grey Owl                       |  | Fully mounted | legal              | Α  | II    |                  | Anon. (2004b)        |
| APODIFORMES                            |                                      |  |               |                    |    |       |                  |                      |
| Trochilidae                            |                                      |  |               |                    |    |       |                  |                      |
| Trochilidae spp.                       | Hummingbird                          |  | Live          | legal              | В  | I/II  |                  | Pendry (unpublished) |
| Trochilidae spp.                       | Hummingbird/Bee-eater                |  | Live          | legal              | В  | I/II  |                  | Pendry (unpublished) |
| PICIFORMES                             |                                      |  |               |                    |    |       |                  |                      |
| Ramphastidae                           |                                      |  |               |                    |    |       |                  |                      |
| Ramphastos toco                        | Toco Toucan                          |  | Pair          | legal              | В  | II    |                  | Pendry (unpublished) |
| Ramphastos tucanus                     | Red-billed Toucan                    |  | Live          | legal              | В  | II    |                  | Pendry (unpublished) |
| PASSERIFORMES                          |                                      |  |               |                    |    |       |                  |                      |
| Fringillidae                           |                                      |  |               |                    |    |       |                  |                      |
| Carduelis carduelis                    | Gold Finch                           |  | Live          | illegal            | -  | -     | UK               | Pendry (unpublished) |
| REPTILES                               |                                      |  |               |                    |    |       |                  |                      |

| Scientific name and taxonomic group | Common name              | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item                | Legal /<br>illegal | EU | CITES | Region of origin | Source               |
|-------------------------------------|--------------------------|--|--------------------------|--------------------|----|-------|------------------|----------------------|
| TESTUDINATA                         |                          |  |                          |                    |    |       |                  |                      |
| Testudinidae                        |                          |  |                          |                    |    |       |                  |                      |
| Geochelone carbonara                | Red-footed Tortoise      |  | Adult                    | legal              | В  | II    |                  | Pendry (unpublished) |
| Geochelone elegans                  | Indian Star Tortoise     |  | Pair                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Geochelone pardalis                 | Leopard Tortoise         |  | Live                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Geochelone pardalis                 | Leopard Tortoise         |  | Live                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Geochelone platynota                | Burmese Star Tortoise    |  | Live                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Geochelone sulcata                  | African Spurred Tortoise |  | Pair                     | legal              | В  | П     |                  | Pendry (unpublished) |
| Geochelone yniphora                 | Ploughshare Tortoise     |  | Live                     | illegal            | Α  | Ι     |                  | Pendry (unpublished) |
| Malacochersus tornieri              | Pancake Tortoise         |  | Live                     | illegal            | Α  | II    |                  | Pendry (unpublished) |
| Manouria emys                       | Burmese Brown Tortoise   |  | Pair, appr. 48 cm length | illegal            | В  | II    |                  | Pendry (unpublished) |
| Testudinidae spp.                   | Tortoise hatchlings      |  | Live                     | illegal            | В  | II    |                  | Pendry (unpublished) |
| Testudo graeca                      | Spur-thighed Tortoise    |  | At 3-4yrs                | illegal            | Α  | II    |                  | Pendry (unpublished) |
| Testudo graeca                      | Spur-thighed Tortoise    |  | Breeding female          | legal              | Α  | II    |                  | Pendry (unpublished) |
| Testudo hermanni                    | Hermann's Tortoise       |  | At 3-4yrs                | illegal            | Α  | II    |                  | Pendry (unpublished) |
| Testudo hermanni                    | Hermann's Tortoise       |  | Live                     | legal              | Α  | II    |                  | Pendry (unpublished) |
| Testudo hermanni                    | Hermann's Tortoise       |  | Live                     | legal              | Α  | II    |                  | Pendry (unpublished) |
| Testudo horsfieldii                 | Horsfield's Tortoise     |  | Live                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Testudo horsfieldii                 | Horsfield's Tortoise     |  | Live                     | legal              | В  | II    |                  | Pendry (unpublished) |
| Testudo marginata                   | Marginated Tortoise      |  | Live                     | legal              | Α  | Π     |                  | Pendry (unpublished) |
| Testudo marginata                   | Marginated Tortoise      |  | Live                     | legal              | Α  | II    |                  | Pendry (unpublished) |
| Testudo radiata                     | Radiated Tortoise        |  | Live                     | illegal            | Α  | Ι     |                  | Pendry (unpublished) |
| Testudo radiata                     | Radiated Tortoise        |  | Live                     | illegal            | Α  | Ι     |                  | Pendry (unpublished) |
| CROCODYLIA                          |                          |  |                          |                    |    |       |                  |                      |
| Alligatoridae                       |                          |  |                          |                    |    |       |                  |                      |
| Alligator sinensis                  | Chinese Alligator        |  | Live                     | illegal            | Α  | Ι     |                  | Pendry (unpublished) |
| Crocodylidae                        |                          |  |                          |                    |    |       |                  |                      |
| Tomistoma schlegelii                | False Garial             |  | Live                     | illegal            | Α  | Ι     |                  | Pendry (unpublished) |
| RHYNCHOCEPHALIA                     |                          |  |                          |                    |    |       |                  |                      |
| Sphenodontidae                      |                          |  |                          |                    |    |       |                  |                      |
| Sphenodon punctatus                 | Tuatara Lizard           |  | Live                     | illegal            | Α  | Ι     | New Zealand      | Pendry (unpublished) |

| Scientific name and taxonomic<br>group | Common name                | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item         | Legal /<br>illegal | EU | CITES | Region of origin | Source               |
|--|----------------------------|--|-------------------|--------------------|----|-------|------------------|----------------------|
| SAURIA                                 |                            |  |                   |                    |    |       |                  |                      |
| Agamidae                               |                            |  |                   |                    |    |       |                  |                      |
| Uromastyx acanthinura                  | Bell's Dabb Lizard         |  | Live              | legal              | В  | II    |                  | Pendry (unpublished) |
| Uromastyx ocellata                     | Eyed Dabb Lizard           |  | Live              | legal              | В  | II    |                  | Pendry (unpublished) |
| Chamaeleonidae                         |                            |  |                   |                    |    |       |                  |                      |
| Calumma parsonii                       | Parson's Chameleon         |  | Live              | legal              | В  | II    |                  | Pendry (unpublished) |
| Chamaeleo jacksoni                     | Jackson's Chameleon        |  | Live              | legal              | В  | II    |                  | Pendry (unpublished) |
| Furcifer oustaleti                     | Malagasy Giant Chameleon   |  | Live              | legal              | В  | Π     |                  | Pendry (unpublished) |
| Furcifer pardalis                      | Panther Chameleon          |  | Live              | legal              | В  | II    |                  | Pendry (unpublished) |
| Scincidae                              |                            |  |                   |                    |    |       |                  |                      |
| Corucia zebrata                        | Solomon Island Giant Skink |  | Pair of juveniles | illegal            | В  | Π     | Solomon Islands  | Pendry (unpublished) |
| Corucia zebrata                        | Solomon Island Giant Skink |  | Pair of adults    | illegal            | В  | Π     | Solomon Islands  | Pendry (unpublished) |
| Varanidae                              |                            |  |                   |                    |    |       |                  |                      |
| Varanus komodoensis                    | Komodo Dragon              |  | Live              | illegal            | Α  | Ι     |                  |                      |
| Varanus melinus                        | Quince Monitor             |  | Live              | legal              | В  | II    | Malaya           | Pendry (unpublished) |
| Varanus spp.                           | Rare Monitor Lizards       |  | Live              | illegal            | В  | II    |                  | Pendry (unpublished) |
| Varauns olivaceus                      | Gray's Monitor             |  | Live              | illegal            | Α  | Π     |                  | Pendry (unpublished) |
| n. det. Sauria                         |                            |  |                   |                    |    |       |                  |                      |
| Trachydosaurus rugosus                 | Shingleback Lizard         |  | Live              | illegal            | -  | -     | Australia        | Pendry (unpublished) |
| SERPENTES                              |                            |  |                   |                    |    |       |                  |                      |
| Pythonidae                             |                            |  |                   |                    |    |       |                  |                      |
| Morelia boeleni                        | Boelen's Python            |  | Live              | legal              | В  | Π     |                  | Pendry (unpublished) |
| Python molurus                         | Burmese Python             |  | Live              | legal              | В  | П     |                  | Pendry (unpublished) |
| Python regius                          | Royal Python               |  | Live              | legal              | В  | П     |                  | Pendry (unpublished) |
| Boidae                                 |                            |  |                   |                    |    |       |                  |                      |
| Boa constrictor                        | Boa constrictor            |  | Live              | legal              | В  | Π     |                  | Pendry (unpublished) |
| AMPHIBIANS                             |                            |  |                   |                    |    |       |                  |                      |

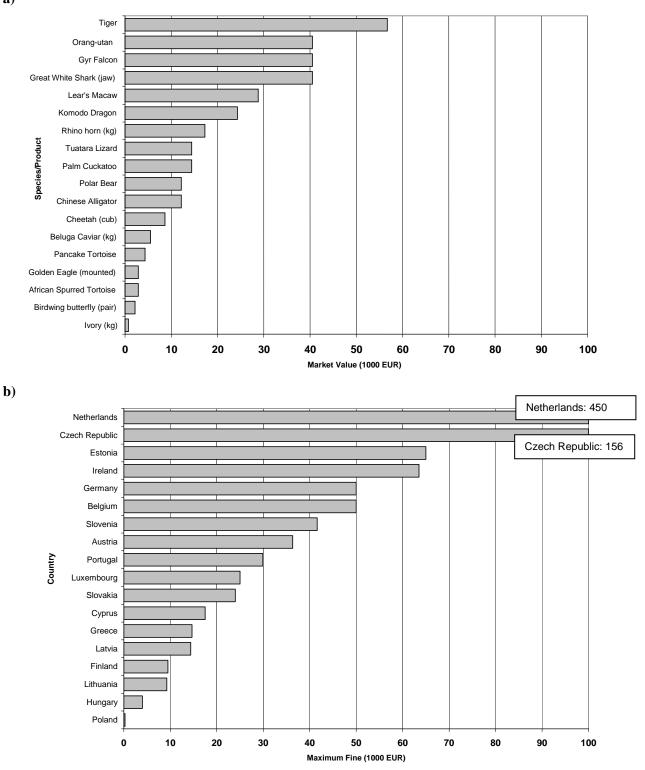
| Scientific name and taxonomic<br>group | Common name                     | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item        | Legal /<br>illegal | EU  | CITES | Region of origin         | Source               |
|--|---------------------------------|--|------------------|--------------------|-----|-------|--------------------------|----------------------|
| ANURA                                  |                                 |  |                  |                    |     |       |                          |                      |
| Dendrobatidae                          |                                 |  |                  |                    |     |       |                          |                      |
| Dendrobatidae sp.                      | Poison Arrow Frogs              |  | Live             | illegal            | В   | II    | South/Central<br>America | Pendry (unpublished) |
| ELASMOBRANCHII                         |                                 |  |                  |                    |     |       |                          |                      |
| LAMNIFORMES                            |                                 |  |                  |                    |     |       |                          |                      |
| Lamnidae                               |                                 |  |                  |                    |     |       |                          |                      |
| Carcharodon carcharias                 | Great White Shark               |  | Jaw bone         | illegal            | С   | III   |                          | Pendry (unpublished) |
| Carcharodon carcharias                 | Great White Shark               |  | Individual teeth | illegal            | С   | III   |                          | Pendry (unpublished) |
| n. det. Lamniformes                    |                                 |  |                  |                    |     |       |                          |                      |
| Lamniformes spp.                       | Shark                           |  | Fin              | illegal            | -   | -     |                          | Pendry (unpublished) |
| ACTINOPTERYGII                         |                                 |  |                  |                    |     |       |                          |                      |
| OSTEOGLOSSIFORMES                      |                                 |  |                  |                    |     |       |                          |                      |
| Osteoglossidae                         |                                 |  |                  |                    |     |       |                          |                      |
| Scleropages formosus                   | Asian Arrowana                  |  | Live             | illegal            | Α   | Ι     |                          | Pendry (unpublished) |
| ARACHNIDA                              |                                 |  |                  |                    |     |       |                          |                      |
| ARANEAE                                |                                 |  |                  |                    |     |       |                          |                      |
| Theraphosidae                          |                                 |  |                  |                    |     |       |                          |                      |
| Brachypelma vegans                     | Mexican Red-rumped<br>Tarantula |  | Live             | legal              | В   | П     |                          | Pendry (unpublished) |
| INSECTA                                |                                 |  |                  |                    |     |       |                          |                      |
| LEPIDOPTERA                            |                                 |  |                  |                    |     |       |                          |                      |
| Papilionidae                           |                                 |  |                  |                    |     |       |                          |                      |
| Ornithoptera sp.                       | Birdwing butterflies            |  | Pair             | illegal            | A/B | I/II  | SE Asia                  | Pendry (unpublished) |
| BIVALVIA (MOLLUSCA)                    |                                 |  |                  |                    |     |       |                          |                      |
| VENERIDA                               |                                 |  |                  |                    |     |       |                          |                      |
| Tridacnidae                            |                                 |  |                  |                    |     |       |                          |                      |

| Scientific name and taxonomic group | Common name     | Price (EUR)<br>INFORMATION NOT<br>AVAILABLE TO<br>PUBLIC | Unit/item | Legal /<br>illegal | EU   | CITES | Region of origin | Source               |
|-------------------------------------|-----------------|--|-----------|--------------------|------|-------|------------------|----------------------|
| Tridacna spp., Hippopus spp.        | Giant clams     |  | Shell     | legal              | В    | II    | South Pacific    | Pendry (unpublished) |
|                                     |                 |  |           |                    |      |       |                  |                      |
| PLANTS                              |                 |  |           |                    |      |       |                  |                      |
| Cactaceae                           |                 |  |           |                    |      |       |                  |                      |
| Cactaceae spp.                      | Cacti           |  | Live      | illegal            | A./B | I/II  | Africa/Americas  | Pendry (unpublished) |
| Orchidaceae                         |                 |  |           |                    |      |       |                  |                      |
| Paphiopedilum spp.                  | Slipper orchids |  | Live      | illegal            | Α    | Ι     | SE Asia          | Pendry (unpublished) |

\* Prices paid in actual transactions \*\* Estimates

All remaining figures: list or asking prices

Figure 1. Comparison of reported maximum market values for selected species of wild fauna (a) and maximum fines stipulated in wildlife trade regulations in the various EU Member States (b). Only the absolute maximum fine, under any legislation and for any kind of offence, is listed. Only Member States with fixed maximum fines are included (Sources: see Tables 1 & 2).



a)

#### PENALISING WILDLIFE CRIMES IN PRACTICE

An overview of the legal instruments for wildlife trade infringements would be incomplete if it did not address problems and legal constraints to law enforcement, as well as legislation.

A recent review of EC wildlife trade controls concluded that penalties for wildlife trade infringements rarely exhausted the available sanctions: in many cases, penalties did not exceed one quarter of the maximum imprisonment or fine available (Anton, 2002). A closer examination of practical enforcement of wildlife trade regulations in individual countries further supports this observation: in Germany, species conservation offences tend to be sanctioned at the lower range of available penalties, whereas animal welfare offences are sanctioned at the upper limit; there were even cases in other Member States where public prosecutors or judges were not aware of the relevant legislation and had to be pointed to it by enforcement authorities (Anton, 2002). In Greece, no wildlife crime cases were taken to court for violations of EC Regulation 338/97 between 1998 and 2001 (though two cases were initiated during the 2003/2004 period); in Luxembourg, the only sentences passed consisted of confiscation (Anton, 2002). According to their biennial reports for 2003/2004, there were no prosecutions relating to wildlife trade offences in Cyprus, Denmark, Estonia, Finland, Latvia, Lithuania or Sweden during the reporting period.

#### Education of and information for prosecutors

The relative rarity of wildlife crime - compared to other types of offences - is one reason for the lack of adequate law enforcement in this sector: due to the scarcity of cases, many public prosecutors have no experience in dealing with wildlife trade offences. This problem is aggravated if prosecutors and judges do not fully understand the severity of the damage caused by illegal wildlife trade to the species in the wild.

An obvious example of this lack of experience is in Greece, where few cases have been prosecuted, leading to a corresponding lack of relevant experience. This might lead to a vicious cycle of non-enforcement.

A promising approach to dealing with this problem is the creation of centralized and specialized national wildlife crime prosecutors. Taking one step in this direction, Finland has four prosecutors who are specialised in environmental crime and can take cases anywhere in the country; the Swedish Environmental Crime Unit (within the office of the General Prosecutor), the Dutch "Expertise Centre Green Public Prosecutor" are similar examples (Anton, 2002), while the British "Partnership for Action against Wildlife Crime" aims to foster effective enforcement through the co-operation and information exchange of the police, Customs, public prosecutors and NGOs. Additional positive effects would arise from the development and wider publication of databases

containing information about market values or the conservation status of species in trade (e.g. IUCN Red List), as a reference tool for public prosecutors. Another useful tool is EU-TWIX, a new online database to help law enforcers in the EU fight wildlife trade crime in Europe, which includes information on seizures in EU Member States (Anon., 2005b). Finally, there is a need for more information exchange between specialist prosecutors both within and among Member States. A positive example of the latter is the 2004 workshop "Fighting Wildlife Trade Crimes in Europe" which took place in Falsterbo (Sweden) and brought together public prosecutors and wildlife trade experts from 11 European countries (Anon., 2004a). This workshop involved the International Association of Prosecutors, a potentially valuable partner for further efforts in this field.

A positive side-effect of networks like those described above is that their establishment requires, and often crystallizes political will towards more effective law-enforcement against wildlife trade offences, which can then be harnessed to enhance enforcement in general.

#### Example: Prosecution of a criminal enterprise involved in a high-profile wildlife crime case

This case emerged when a wide-ranging international network engaged in illegal wildlife trade was accidentally discovered by the German authorities in 1999. Using telephone tapping, more than 100 illegal trade transactions were subsequently identified, including trade in Asian Elephants *Elephas maximus* from Indonesia to Argentina, China and Germany, Tiger *Panthera tigris* from Belgium to China and the UK, and Komodo Dragons *Varanus komodoensis* from Indonesia to France and Mexico. Citizens of at least 11 countries were involved in the network. Based on the evidence available, the public prosecutor concluded that the network had been established as a criminal enterprise, and prosecuted in Germany accordingly. The court did not follow this argument, however, and stated instead that the principal defendant had such a dominant position in the network that the criminal intent of the other defendants could not be proved, and that the network could not be regarded as a criminal enterprise. As a result, the wildlife trade offences had to be treated individually, only the principal defendant was sentenced (to a three-year prison sentence), and the other defendants merely received suspended sentences of  $1^{1}/_{2}$  years (Kreutz, 2002).

Although commendable for the successful international co-operation and the clarity of the prosecution, this case is an example where it could not be established in court that proven wildlife offences were committed as organised crime. Without the use of specific legislation against organised crime, the available penal instruments were insufficient to match the economic and ecological scale of the offences.

#### Example: Creating case law - adapting penal instruments to the open markets of the EU

In April 2000, Newcastle Crown Court an UK national was convicted on four counts of smuggling Lear's Macaws (*Anodorhynchus leari*) and Blue-headed Macaws (*Propyrrhua couloni*) that had allegedly been imported from Yugoslavia. The defendant appealed against his sentence on the grounds that the parrots had already entered the EU when he took possession of them in Austria, and he could therefore not be tried for illegal import by English courts. This appeal was rejected by the Court of Appeal. The Court held that, according to the *Customs and Excise Management Act* (1979), it was an offence to be knowingly involved in any fraudulent evasion of control measures set in Council Regulations, no matter where exactly the specimens concerned entered the EU (Russel, 2002).

This ruling of the Court of Appeal is important as it blocks a potential loophole in national legislation, adapting it to the realities of the open European Union single market, and making it more effective for prosecuting illegal wildlife traders.

#### Problems related to the prosecution of non-residents

Another common problem with regard to the enforcement of wildlife trade regulations is the fact that offences are often committed by non-residents of the respective country, and that it is generally difficult to notify and prosecute non-residents who have left the country where the offence is committed (Anton, 2002). This calls for improved international co-operation between enforcement authorities and prosecutors.

#### Example: Unsuccessful prosecution of non-residents for illegal ivory trade

In June 2001, a shipment of 150 kg of ivory and ivory products as well as other illegal products belonging to 15 Chinese nationals working in Mali was seized by Belgium Customs. When the individuals travelled through Brussels a month after the seizure, they were arrested. They were released without bail and allowed to leave the country after five days, however, because under Belgian law, the maximum penalty for the offence in question has to be at least one year in order to warrant arrest (Beatens, 2002). At that time, the maximum sentence for wildlife trade offences in Belgium was only six months (maximum sentences have increased since). The fact that the legal instruments were not sufficient at the time to detain these non-resident suspects for more than five days enabled them to escape prosecution.

#### Example: Court case hindered by non-appearance of offender

In 1991, 52 birds without proper documentation were seized from a German citizen in Spain. Since 1992, the judge responsible has called the German citizen for a hearing every year, but on each occasion the person has refused to appear, claiming bad health (Nuňez-Román, 2002). This shows that even within the EU, the issues of residency pose a serious problem to successful wildlife crime-related prosecutions.

Finally, the enforcement of wildlife trade regulations is often hindered by insufficient resources. Sentencing in Spain can take as long as 10 years to be completed, and CITES offences in Portugal are often not sanctioned because of a lack of suitable housing for seized animals (Anton, 2002). A similar situation has been reported from Greece (Vogiatzis, 2002). The number of wildlife trade offences uncovered in Belgium is limited by the number of Customs officers available, with, for instance, only very few cases reported between 1996 and 2001 by the largely understaffed Customs team in Antwerp harbour (Francis, 2002).

Lack of resources is a general problem that will be difficult to resolve. One partial solution with regard to housing might be the establishment of a centralized European housing facility for confiscated animals (Vogiatzis, 2002). Individual Member States should be encouraged to set up their own system to deal with housing confiscated specimens if this is not already in place. Good examples of this in practice include the Netherlands, Slovenia and the UK. The possibility of Member States helping each other with seized specimens could also be explored.

#### RECOMMENDATIONS

The analysis of the implementation of Article 16, *EC Regulation 338/97* within EU Member States reveals a range of possible improvements on several levels. In addition to the recommendations listed below, improving other aspects of wildlife law enforcement would have a strong positive effect on the implementation of Article 16. In order to keep pace with advances in technology that may be used in organised wildlife crime, the powers of enforcement agencies should be extended to use modern investigation and surveillance methods. In general, where a wildlife trade offence is suspected of being connected to organised crime, the full range of enforcement powers available for investigating criminal activity of this scale should be used.

More detailed recommendations regarding wildlife trade enforcement in EU Member States have been made by the participants of the European Union Wildlife Trade Enforcement Co-ordination Workshop in 2005 (Anon., 2005c) and the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU held in Frankfurt in 2001 (Anton *et al.*, 2002).

Corresponding to the areas of possible improvement discussed in this report, the following specific recommendations address measures to improve awareness and competence, procedures to set penalties in a fairer and more consistent manner, ways to improve enforcement and additional administrative instruments. They also take into account similar recommendations by Young (2002).

#### Fostering awareness and competence

- The gravity of serious illegal wildlife trade, in terms of the damage done to the remaining wild populations of the species involved, should be communicated more clearly to both prosecutors and judges. The market values and profits involved, as well as the organised nature of many wildlife trade crimes and links to other forms of organised crime, should also be stressed. Market values could be published on a secure online database but care should be taken that these data remain within the enforcement arena and are updated regularly.
- Technical and legal information, as well as information on wildlife trade offences and associated court cases, should be made more readily accessible, and relevant online resources, such as the IUCN Red List, should be promoted among the judiciary. For example, legal journals should be used more extensively to publicise wildlife trade-related information. This should contribute to a generally stricter culture in dealing with wildlife trade offenders throughout the judicial system.

 In order to create centres of competence for prosecuting wildlife trade offences, more Member States should consider the establishment of specialised environmental prosecution offices. Existing networks of prosecutors like the International Association of Prosecutors, as well as relevant NGOs, should be involved more widely in information exchange regarding illegal wildlife trade penalties.

## Setting of financial penalties

- There should be explicit and consistent standards throughout EU Member States as to when an infringement is considered an administrative offence, and when it is considered a criminal offence. Penalty ranges should differentiate accordingly. Portugal should reconsider penalty amounts to bring them in line with those of other European countries.
- The relative importance of deterrence and compensation as defining factors of illegal wildlife trade penalties should be clarified, and it should be ensured that some element of compensation such as in the Finnish example is introduced into the system.
- Penalty ranges for all wildlife trade regulation offences should reflect the market value of the specimens involved in the illegal activity, but they should also take into account the conservation value of the species. One way to achieve this would be the use of different multiples of the specimen value to set fines for offences involving species of different EC Annexes, or different conservation status in general (as in the Italian system). There should be no set maximum fines since there is no empirical upper limit to the value involved in illegal wildlife trade operations. Instead, explicit and transparent rules should link fines to the amount of money involved in illegal transactions, as is already the case in Britain, Italy and Spain.
- A wider use of day fines should be considered in those cases where the offenders are individuals without a commercial motive. However, the application of day-fines results in penalties that are independent of the market value of the specimens involved. Therefore, day fines are not effective against commercial companies in general, and against illegal wildlife trade operations that are aimed at financial profit in particular.
- Fines are not the only penalty used for wildlife trade offences, and prison sentences on top of monetary fines can compensate for the inadequacy of financial penalties. However, only significant monetary fines, and / or a significant prison sentence can serve as a strong enough deterrent.

#### Additional administrative instruments

- Additional efforts should also be made to deal with non-resident offenders engaged in wildlife trade offences. These efforts should include improved international co-operation of enforcement authorities both within the EU and with other CITES Parties; the possibility of prosecuting EU nationals for involvement in wildlife offences committed in other Member States; and improved detention powers in cases where non-resident offenders are likely to abscond.
- Following, for example, the *Slovenian Nature Conservation Act*, the possibility of prosecuting individuals involved in businesses or other legal entities which have been implicated in wildlife trade offences should be considered by all Member States.
- Member States such as Spain should redraft legislation that inadvertently protects those who purchase smuggled goods, or otherwise passively supports wildlife trade offences, by dis-allowing seizure and confiscation in some instances.
- Enforcement agencies and prosecutors should be empowered to seize and confiscate not only the specimens involved in illegal activities, but also the funds and equipment used for these activities, such as cars and containers, as this might constitute a strong additional deterrent to illegal enterprises. Positive examples include the legislation of France, Slovenia, Spain and the UK.
- Legally registered businesses could be deterred from engaging in illegal activities by additional administrative measures, such as licence suspension. Positive examples are the Danish and Italian legislation against "illegal taxidermy".
- Initiatives to establish a centralized European housing facility for confiscated animals, or for encouraging Member States to set up their own system to deal with confiscated specimens, should be supported. The possibility of Member States helping each other with seized specimens could also be explored. In the meantime, there should be more information exchange about national housing facilities and best practice. One positive example is a database of rescue centres throughout the EU based on a list that TRAFFIC Europe compiled for the Commission in 2003, which is featured in the EU TWIX database.

#### REFERENCES

- Amador, T. (2002). Enforcement of international wildlife trade controls in Portugal. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 203-209.
- Anon., T. (2002a). Statistical information and factual summaries on the enforcement of wildlife trade controls in Germany. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 277-291.
- Anon., T. (2002b). Statistical information and factual summaries on the enforcement of wildlife trade controls in Italy. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 294-300.
- Anon., T. (2002c). Statistical information and factual summaries on the enforcement of wildlife trade controls in the United Kingdom. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 324-342.
- Anon. (2004a). Experts meet in Sweden to discuss ways to strengthen prosecution of wildlife trade related crimes. TRAFFIC online news, 15 June 2004. Accessed on May 8, 2006 at www.traffic.org/news/expert\_sweden.html.
- Anon. (2004b). Values of CITES specimens in the taxidermy trade from March 2004 to 30 August 2004. Unpublished data compilation. British League of Taxidermists.
- Anon. (2005a). Black gold: the caviar trade in western Europe. TRAFFIC Fact Sheet. Accessed at http://www.traffic.org/news/Caviar\_factsheet.pdf on May 17, 2006.
- Anon. (2005b). EU-TWIX: Key tool to facilitate information exchange on illegal wildlife trade between EU law enforcement officials. TRAFFIC online news. Accessed at www.traffic.org/25/network4/EU-TWIX%20Fact%20sheet.pdf on May 9, 2006.
- Anon. (2005c). European Union Wildlife Trade Enforcement Co-ordination Workshop: Statement and Recommendations. Accessed at http://www.traffic.org/news/EU\_law.pdf on May 26, 2006.
- Anon. (2006a). CITES online. German Bundesamt f
  ür Naturschutz, Bonn (Germany). Accessed at www.cites-online.de on April 21, 2006.
- Anon. (2006b). *FINLEX* (Finnish legal information database). Finnish Ministry of Justice and Edita *Ltd*, Helsinki. Accessed at www.finlex.fi on April 21, 2006.
- Anon. (2006c) Lebensministerium.at. Austrian Federal Ministry of Agriculture, Forestry, Environment and Water, Vienna. Accessed at www.lebensministerium.at on April 21, 2006.
- Anton, M. (2002). A preliminary overview of court cases and challenges in the prosecution of crime related to wildlife trade in the EU. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 42-47.
- Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.) (2002). Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK).
- Barreira, A. (2002). Enforcement of international wildlife trade controls in Spain. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the*

*Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 210-226.

- Beatens, L. (2002). The problems of the conversion of CITES in Belgian law. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 61-63.
- Cirelli, M. T. (2002). Enforcement of international wildlife trade controls in Italy. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 185-193.
- Fiori, M. and Avanzo, C. (2002). Enforcement in Italy. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 69-74.
- Francis, E. (2002). Enforcement of international wildlife trade controls in Belgium. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 105-117.
- Geysels, F. (2002). Monetary compensation in crimes against nature. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 48-53.
- Hollo, E. J. (2002). Enforcement of international wildlife trade controls in Finland. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 128-132.
- Hvilsted, P. and Buchhold, M. (2002). Enforcement of international wildlife trade controls in Denmark. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 118-127.
- Kecse-Nagy, K., Papp, D., Raymakers, C., Steiner, A. and Theile, S. (Eds) (2004). Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in Central and Eastern Europe. TRAFFIC Europe, Budapest, Hungary. 83pp.
- Kecse-Nagy, K., Papp, D., Knapp, A., and von Meibom, S. (in press). Wildlife Trade in Central and Eastern Europe: A review of the implementation of CITES in 15 countries. TRAFFIC Europe, Budapest (Hungary). 121 pp.
- Kreutz, A. (2002). Organised crime in the wildlife trade in Germany. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 56-58.
- Michanek, G. (2002). Enforcement of international wildlife trade controls in Sweden. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop* on the Enforcement of Wildlife Trade Controls in the EU, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 227-249.
- Miettinen, V. (2002). Value confiscation monetary compensation in crimes against protected species. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 54-55.
- Nuňez-Román, M. (2002). Statistical information and factual summaries on the enforcement of wildlife trade controls in Spain. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls

Implementation of Article 16, EC Regulation 338/97, in the 25 Member States of the European Union 43

*in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 313-317.

- Parry-Jones, R. and Knapp, A. (Eds.) (2005). Country Profiles Compiled for the EU Wildlife Trade Enforcement Workshop, 25-27 October 2005, UK. TRAFFIC, Cambridge (UK). 114 pp.
- Pendry, S. (Unpublished). List of prices of CITES Appendix-listed species. Unpublished data compilation. TRAFFIC International.
- Russel, E. (2002). Cases from the United Kingdom. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 59-60.
- Seelig, R. (2002a). Enforcement of international wildlife trade controls in Austria. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 99-104.
- Seelig, R. (2002b). Enforcement of international wildlife trade controls in Germany. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 149-157.
- Seelig, R. (2002c). Enforcement of international wildlife trade controls in Luxembourg. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop* on the Enforcement of Wildlife Trade Controls in the EU, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 194-198.
- Shine, C. (2002a). Enforcement of international wildlife trade controls in France. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 133-148.
- Shine, C. (2002b). Enforcement of international wildlife trade controls in Ireland. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 168-184.
- Shine, C. (2002c). Enforcement of international wildlife trade controls in the United Kingdom. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 250-263.
- Vogiatzis, S. (2002). Statistical information and factual summaries on the enforcement of wildlife trade controls in Greece. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 292-293.
- Wijnstekers, W. (2003) Eradicating illegal trade in wild fauna and flora in the European Union urgently requires an effective system of sanctions. Conference paper, EC Conference on Environmental Crime in Europe "Rules of Sanctions", 27-28 November 2003, Brussels.
- Young, T. R. (2002). National wildlife trade regulations in EU Member States. In: Anton, M., Dragffy, N., Pendry, S. and Young, T. R. (Eds.), *Proceedings of the International Expert Workshop on the Enforcement of Wildlife Trade Controls in the EU*, 5.-6. November 2001, Frankfurt (Germany). TRAFFIC Europe, Brussels, and IUCN, Gland (Switzerland) and Cambridge (UK). Pp. 19-41.