# REPORT

# PUBLICITY INITIATIVE FOR WILDLIFE TRADE CONTROLS IN THE EU – TARGETING STAKEHOLDERS

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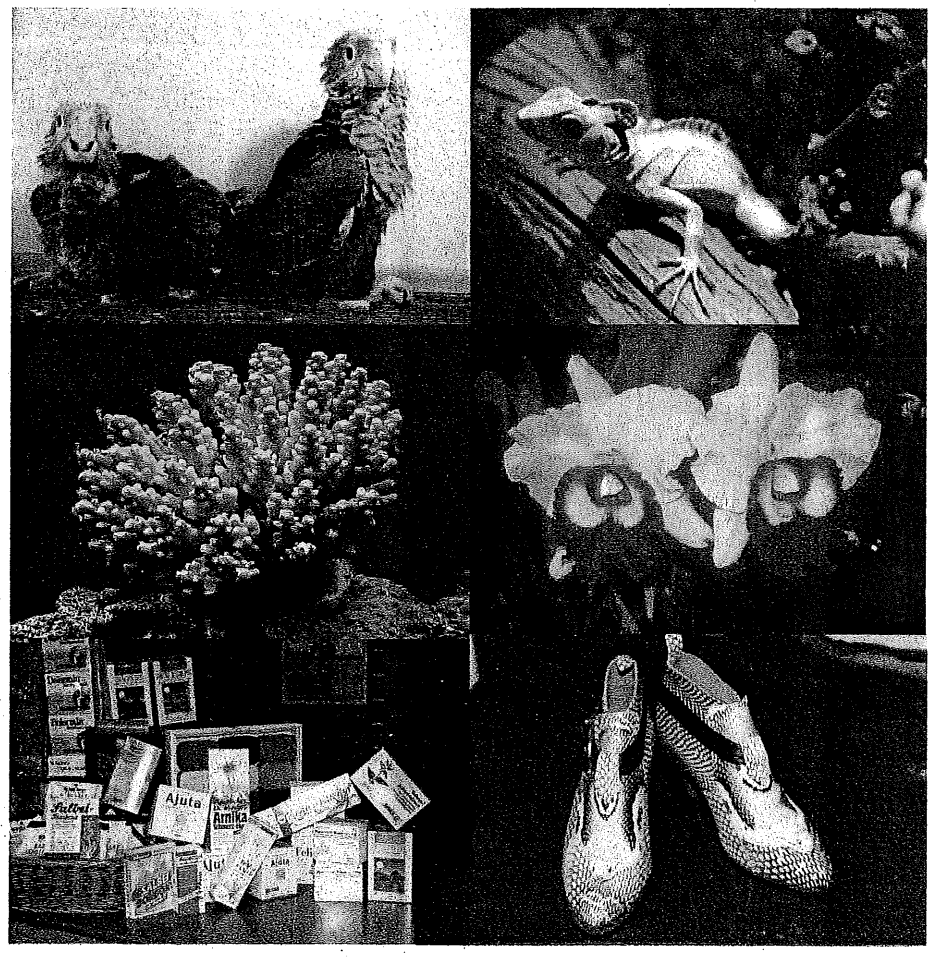


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## INTRODUCTION

The European Union is one of the largest consumers of wildlife and wildlife products in the world. The market is diverse and complex and the range of plant and animal species involved changes constantly, depending upon many factors such as fashion, value, availability as well as regulations or restrictive measures taken in favour of the protection of certain species. A large number of wild species are subject to regulations, such as those provided under the "Convention on International Trade with Endangered Species of wild Fauna and Flora (CITES)", which is applied by nearly 160 Parties. CITES regulates international trade in more than 30,000 species of wild plants and animals and their products in order to prevent such trade from causing serious threats to the survival of the species concerned.

The European Union is not a Party to CITES in its own right. However, all 15 EU Member States are Parties to CITES and the EU has implemented CITES through the common EU Wildlife Trade Regulations since 1984. In July 1997, these common regulations were replaced by much more comprehensive legislation, consisting of Council Regulation (EC) No. 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein and Commission Regulation (EC) No 939/97 of 26 May 1997 laying down detailed rules concerning the implementation of Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein that has recently been replaced by Commission Regulation (EC) No. 1808/2001 of 30 August 2001. These two Regulations fully implement CITES as well as the bulk of currently applicable Recommendations and Decisions of the Conference of the Parties on the interpretation and implementation of its provisions.

A study conducted by TRAFFIC, covering the period from 1990 to 1994, provided information on the characteristics of the EU market for CITES-listed plant and animal species. The EU was the world's largest importer of live parrots, importing 1,823,140 specimens during this period (44% of the global trade). The EU was also an important market, together with the USA and Japan, for live reptiles, importing 47,499 tortoises (22% of the global trade), 38,998 monitor lizards (17% of the global trade), 52,915 chameleons (19% of the global trade) and 95,734 boas and pythons (15% of the global trade). As for live amphibians, the EU imported 20,962 poison arrow frogs (15% of the global trade). In addition to live animals, the EU was also a large importer of reptile skins and imported 1,289,912 whole alligator, caiman and crocodile skins (35% of the global trade) and 1,377,212 monitor lizard skins (13% of the global trade).

These figures indicate the importance of effective implementation of the EU Wildlife Trade Regulations, which is necessary to promote sustainable trade in wild specimens and to monitor the market developments in such a way that, if required, responsive legislative measures can be taken. The legal responsibility for these tasks lies with the European Commission and the authorities in the Member States themselves. However, traders and consumers of wildlife species also have a long-term benefit when excessive harvest and trade are not causing depletion of natural resources, but are regulated in such a way that off-take numbers can be maintained in the future. Therefore, all stakeholders involved in wildlife trade have to be aware of and understand the existing provisions and the legal requirements. Article 15.1 of Council Regulation (EC) No. 338/97 requires that the Commission and the Member States ensure that the public is made aware of the provisions of CITES and the new Regulations. Some of these provisions are directly addressing the commercial sector such as Article 9(4) of Regulation 338/97 that requests that "the holder of a live specimen of a Annex B species ensures that the recipient of the specimen is adequately informed of the accommodation, equipment and practices required to ensure the specimen will be properly cared for."

The European Commission and TRAFFIC Europe/WWF launched a large-scale information campaign in all EU Member States in 1997 with the objective to inform the general public about the provisions of Regulation (EC) 338/97 and to increase public awareness. This campaign was specifically designed to target the general public, in particular tourists, and included a wide range of communication and information activities and tools, ranging from posters and leaflets to airport exhibition and press conferences. The overall results of this campaign were very satisfactory, with a high media coverage and excellent participation of national CITES authorities, all major airports in the EU, airlines and travel agencies and others. This large campaign also functioned as a model for two additional awareness campaigns that were developed and organised by TRAFFIC Europe – Italy and TRAFFIC

Europe – Netherlands in the following years in co-operation with WWF. Similar to the above-mentioned campaigns these two campaigns targeted the general public and in particular tourists.

Additionally, the commercial sector involved in the trade of wildlife listed under Regulation 338/97 is of importance and should also be well aware of the provisions in order to promote compliance and effective implementation. A second information and awareness campaign targeting the commercial sector could prove to be very important and useful. However, there is currently no full understanding of the market structures and related information flows that provide the stakeholders with knowledge about legislative matters, nor of the current level of awareness amongst these parties concerned. Further, the presence and efficiency of co-operation between traders, consumers, authorities and nature conservation organisations for stimulating sustainable trade is not clear. Therefore, before organising a second campaign, it is necessary to learn more about these subjects, to find out what kind of information should be provided and what channels can best be used. Then the campaign can be organised to be most effective in informing the stakeholders of their administrative obligations regarding the EU Regulations (and preventing them from being involved in illegal practices without being aware of that fact), in explaining the various aspects of the provisions, such as the conservation of wildlife, the promotion of sustainable trade and the proper care for live imported specimens and in providing information on the legal consequences for violation of the provisions.

## OBJECTIVES

The general objective of this study is to prepare a publicity campaign of the EU Commission that shall target the main commercial sectors involved in the commercialisation of wildlife regulated under Regulation (EC) 338/97. The research aimed to:

1. Gather and compile information on the main commercial sectors in the EU that use wildlife listed in Regulation (EC) 338/97
2. Assess awareness within the main commercial sectors of existing legal provisions applying to their commercial activities, and
3. Suggest appropriate tools and activities on which the planned publicity campaign should be based.

The following specific objectives have been identified:

- To identify the main commercial sectors in the EU that use wildlife and/or wildlife products that are listed in Regulation (EC) 338/97, and to assess their relative importance regarding economic and species conservation terms.

- To identify umbrella organisations at the EU level for these commercial sectors which could contribute to improve the understanding of the role of the trade in sustainable wildlife use.

- To establish contact with each of the main umbrella organisations and produce a directory listing their main feature and an electronic list of key contacts.

- To identify regular major events such as commercial pet events where information material could be distributed.

- To assess awareness of Community law on wildlife trade in each of the main commercial sectors.

- To prepare suggestions for tools and activities that could address any gaps in knowledge, suggest funding sources.

## METHODS

In order to carry out this study, a network of contacts that worked on this project in the different EU Member States was created. The TRAFFIC Europe regional office in Belgium and national offices in France, Germany, Italy and Sweden co-operated, as well as WWF-Finland, Liga Para a Protecção da Natureza in Portugal and consultants in Belgium, Denmark, Greece, Spain and the UK.

Information for this study was collected by various methods. First of all, CITES Annual Report trade data for the period from 1996 to 2000, compiled by the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC) on behalf of the CITES Secretariat, were analysed. These trade data were obtained in the form of comparative tabulations and not restricted to the EU imports, but rather covering all trade in specimens from CITES-listed species in the world. This allowed an analysis in which the global role of the EU as a consumer could be assessed. Further, certain groups of species and specimens were selected (list attached as **Annex I**) in order to obtain information on the characteristics of the most important markets in the EU Member States.

The analysis has been based on import reported trade data, which means all trade reported by the importing countries. In case the export reported trade showed significant differences, this was noted in the text. Although these data are very useful in showing the types and levels of reported trade, there are various limitations to their interpretation. For example, although Parties are required to transmit their trade data to the Secretariat in the form of annual reports, not all Parties submit their annual reports on time and some Parties fail to submit annual reports altogether. Non-Parties do not report their trade in wildlife to the Secretariat and, therefore, unless reported by a CITES Party trade partner, their trade is often lacking from the statistics. Furthermore, although Parties are advised to base their annual reports on permits and certificates that have been used, some countries base their reports on permits and certificates that have been issued. It is therefore most probable that the analysis of CITES data tend to overestimate the trade by taking into consideration quantities specified on permits and certificates even when those have not been used. Results of the trade analysis are compiled in **Annex II**.

In addition to studying the nature and extent of trade, it had been planned to obtain information on economics and conservation. Top tens of species in legal trade were established, based on CITES Annual Report trade data for 2000 (gross trade reported by the importing EU Member States). Matching prices for single specimens were collected for the live pet industry and overall annual turnover figures for the medicinal plant, ornamental plant, leather and wool industries. Information on legal trade impacts for wild populations was gathered by comparing levels of trade in wild specimens with conservation status, as determined by various sources, such as the "2000 IUCN Red List of Threatened Species" (Hilton-Taylor, 2000). The results of these economics and conservation studies are compiled in **Annex III** and **Annex IV**.

Apart from these basic analyses and studies, it was important to identify the main associations, businesses, events and magazines addressing plant and animal species listed by the EU Regulations. The most important source for this kind of information was the Internet, but relevant additional data were provided by the Management Authorities upon request or through other contacts, literature, yellow pages and phonebooks. The purpose was not to make a comprehensive list, but rather to obtain a representative selection for all sectors, covering the most important parts of the markets. The profile information of these associations, businesses, events and magazines was stored in a common directory that had been designed in Microsoft Excel.

Questionnaires were developed (**Annex V** and **VI**) to interview associations and businesses on various subjects, such as their status in the market, their knowledge of the EU Regulations and CITES and their activities concerning relevant plant and animal species. These interviews were carried out through personal visits, phone conversations or e-mail and fax communication. In addition, a protocol for visiting events was designed (**Annex VII**), so that everyone would gather similar kind of information when attending an event. Further, magazines were obtained from the publishing associations or bought in stores. These magazines were reviewed for their suitability to play a role in the publicity campaign.

The activities carried out to obtain information from associations and businesses are shown in Table 1. As for the events, these were either visited personally or, when the event took place in another season, the organiser was

interviewed about the last event held. In total, 18 fairs were visited: one reptile fair in Austria, one reptile fair and one bird fair in Denmark, two reptile fairs, two ornamental plant fairs, one general pet fair and one medicinal plant fair in Germany, two reptile and amphibian fairs, one general pet fair, one bird fair and one leather fair in Italy, two reptile fairs and one ornamental fish fair in the Netherlands and one ornamental plant fair in the UK. Further, four organisers of fairs were approached for interviews, of which three responded (two general pet fairs in France and one reptile fair in the Netherlands). As for the magazines, the editors were occasionally contacted to inform about the possibility for advertisements or articles. All information obtained though these activities was also stored in the common directory in accordance with specific definitions and certain criteria (**Annex VIII**). The database was saved in ACCESS for Windows and includes four "Tables", or directory (**Annex IX**): 1 – Associations/Organisations; 2 – Business; 3 – Magazines; and 4 – Events.

**Table 1**
**Associations and businesses in the EU approached for interviews and their responses.**

| EU Member State | Type of body | Approached for interview | Responded | Response rate |
|---|---|---|---|---|
| Austria | Associations | 6 | 2 | 33% |
| | Business | 6 | 1 | 17% |
| Belgium | Associations | 28 | 9 | 32% |
| | Business | 16 | 5 | 31% |
| Denmark | Associations | 16 | 7 | 44% |
| | Business | 7 | 6 | 86% |
| Finland | Associations | 11 | 6 | 55% |
| | Business | 21 | 14 | 67% |
| France | Associations | 19 | 6 | 32% |
| | Business | 27 | 12 | 44% |
| Germany | Associations | 41 | 24 | 59% |
| | Business | 20 | 12 | 60% |
| Greece | Associations | 7 | 5 | 71% |
| | Business | 21 | 18 | 86% |
| Ireland | Associations | 0 | 0 | |
| | Business | 0 | 0 | |
| Italy | Associations | 9 | 6 | 67% |
| | Business | 26 | 4 | 15% |
| Luxembourg | Associations | 0 | 0 | |
| | Business | 0 | 0 | |
| Netherlands | Associations | 28 | 8 | 29% |
| | Business | 14 | 9 | 64% |
| Portugal | Associations | 14 | 4 | 29% |
| | Business | 49 | 22 | 45% |
| Spain | Associations | 24 | 16 | 67% |
| | Business | 46 | 18 | 39% |
| Sweden | Associations | 14 | 5 | 36% |
| | Businesses | 0 | 0 | |
| UK | Associations | 48 | 11 | 23% |
| | Businesses | 13 | 1 | 8% |
| **Total** | **Associations** | **265** | **109** | **41%** |
| | **Businesses** | **266** | **122** | **46%** |
| | **Total** | **531** | **231** | **44%** |

Finally, an Access database of associations, businesses, fairs and magazines was formed, based on the common directory for storing data, excluding confidential information (Annex VIII). This database allows adding of information, changing data, searching for certain criteria and making envelope labels.

Looking back at the objectives, the obtained results can be found in the report and the annexes as follows:

- *To identify the main commercial sectors in the EU that use wildlife and/or wildlife products that are listed in Regulation (EC) 338/97, and to assess their relative importance regarding economic and species conservation terms*

➢ Annex II compiles trade analyses for the main wildlife sectors and compares the EU market with the markets of the USA, Japan and the entire world. It also contains more detailed information on the different sectors and their importance in the various EU Member States. Annex III and IV compile information on the related economics and species conservation issues.

- *To identify umbrella organisations at the EU level for these commercial sectors which could contribute to improve the understanding of the role of the trade in sustainable wildlife use.*
- *To establish contact with each of the main umbrella organisations and produce a directory listing their main feature and an electronic list of key contacts.*

➢ Information on associations, businesses and the structures they form is described in the various chapters in the paragraph "Structure". Further details (e.g. addresses and profiles) can be found in Annex IX (the Access Database: 1st and 2nd Tables).

- *To identify regular major events such as commercial pet events where information material could be distributed.*

➢ Information on events and, additionally, on magazines is described in the various chapters in the paragraphs "Events" and "Magazines". Further details (e.g. addresses and profiles) can be found in Annex IX (the Access Database: 3rd and 4th Tables).

- *To assess awareness of Community law on wildlife trade in each of the main commercial sectors.*

➢ Information on awareness of the stakeholders in the sectors is described in the various chapters in the paragraph "Awareness".

- *To prepare suggestions for tools and activities that could address any gaps in knowledge, suggest funding sources.*

➢ Suggestions for tools, activities and funding sources can be found in the final chapter "Recommendations".

Note: Medicinal and aromatic plants are called MAPs throughout this report.

## COMMERCIAL WILDLIFE TRADE MARKETS IN THE EU

### Live Pet Industry – General

This chapter provides an overview of the general live pet sectors (information on trade included in ***Annex II – Trade Data Analysis***) and discusses the structure, events, magazines and awareness, without too much specification for the animal groups concerned and focusing on commercial associations and businesses. It can be considered as an introduction to the following three chapters that specifically deal with birds, reptiles, amphibians and the aquarium industry and that provide more in-dept information on the hobbyist aspects.

### *FAUNA: Economics and conservation* (ref. Annex III)

Species composition, volumes and value of the market: The structure of the commercial trade network concerning live pets and pet products is quite complex and highly variable between EU Member States. Organisation on an international level does not seem to

#### *Structure*

The structure of the commercial trade network concerning live pets and pet products is quite complex and highly variable between the EU Member States. Organisation on an international level does not seem to be very relevant for the sector in general, but this is not the same for the aquarium industry in specific. Pet shops are often organised on a national level, although national commercial associations do not exist in all the Member States and the level of co-operation between shops through such forums is not always clear. Further, the shops themselves can play different roles in terms of characteristics of activities and extent of involvement in the trade.

*International commercial associations*

There seems to be little organisation on the international level. The "European Pet Organisation" has seven members in six countries (Austria, France, Germany, Italy, the Netherlands and Switzerland), but no information could be obtained on the structure, objectives and activities of this association. Further, the "Scandinavian Pet Trade Union" is an umbrella association and a joint venture for the pet industry in Denmark, Finland, Norway and Sweden.

Looking specifically at the aquarium industry, there are two important international commercial associations. These are "Ornamental Fish International (OFI)" and the "Marine Aquarium Council (MAC)". "OFI" is a worldwide non-profit making organisation representing the industry for the import and export of ornamental fish, water plants and aquatic equipment. It was founded in 1980 and currently has members in some 40 countries (OFI, 2002). Members include e.g. manufacturers, wholesalers, collectors, breeders, retailers, importers, exporters and plant specialists and, among other agreements, they are committed to supplying their best services, livestock, plants and products, giving the welfare of livestock top priority at all times (OFI, 2002).

"MAC" is an international non-profit making organisation that brings marine aquarium animal collectors, exporters, importers and retailers together with aquarium keepers, public aquariums, conservation organisations and government agencies (MAC, 2002). Its mission is to conserve coral reefs and other marine ecosystems by creating standards and certification for those engaged in the collection and care of ornamental marine life from reef to aquarium. More than 3,000 aquarists, industry operators, conservationists and researchers from 60 countries belong to the "MAC" network (MAC, 2002).

*National commercial associations*

All pet traders have common interests, e.g. in terms of maintaining the quality offered to customers and the good name of the industry in itself. These interests are often represented by one national organisation. Such national commercial associations exist in at least nine Member States (Austria, Belgium, Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK), could possibly exist in two Member States (Ireland and Luxembourg) and, as far as could be observed, do not exist in four other Member States (Greece, Italy, Portugal and Spain).

*Denmark:* In Denmark, the pet traders are loosely organised in a business association ("Dyrehandlernes Brancheorganisation"). Although no detailed information could be obtained on the members to this organisation, it is known that some of the largest and most significant traders of exotic species listed by CITES are not included.

*Finland:* Finland's commercial association for pet traders is called "Suomen akvaario- ja lemmikkieläinkauppiaiden liitto" (the Finnish Union of Aquarium and Pet Traders). It has 250 members (retailers and wholesalers) and concentrates on arranging events and training.

*France:* In France, there are three commercial associations for the pet sector. "PRESTANIMALIA" (the national chamber of animal providers) has around 100 traditional pet shop members. "PRODAF" (interprofessional trade union of manufacturers and product and pet distributors) has around 100 traditional pet shop members (mainly franchisee pet shop type) and around 400 members that are importers, breeders, wholesalers and manufacturers, which is roughly 90% of the total for France (Mr. L. Ladonne, PRODAF, pers. comm. to A. Affre, TRAFFIC Europe – France, May 2002). "FNMJ" (the national federation of garden centres) includes around 500 members that are garden centres and agricultural self service shops and around 1,000 members that are seed shops.

In addition to the three commercial organisations, there is a confederation for businesses and consumers dealing with natural resources. It is called "COMURNAT" and has around 300 individual members and a dozen organisation members. The main focus is on non-living resources (e.g. wool, hide, wood, ivory, etc.), but it seems like some members also sell live animals.

*Germany:* The German commercial association for pet shops is the "Zentralverband Zoologischer Fachbetriebe (ZZF)" with 514 members, most of which are retailers. Around 30-35% of the retailers in the sector in Germany are organised in this association.

*Italy:* There is no national commercial association specifically for pet shops in Italy, although there is one association specifically for the aquarium industry. "Associazione Italian Pesci ed Acquari (AIPA)" organises around 90% of the professionals in this sector and includes importers of sea and fresh water fishes, invertebrates, plants, reptiles and amphibians as well as manufacturers and wholesalers of relevant equipment.

*The Netherlands:* The Dutch association "DIBEVO - Vereniging Landelijke Organisatie" has 1,400 members that are wholesalers, retailers or animal care businesses. It seems to be one of the largest national commercial organisations for pet shops in the EU. Around 90% of all Dutch wholesalers is member, 70% of all retailers and 40% of the animal care businesses through direct membership and 80% through indirect membership.

*Sweden:* The "Swedish Pet Trade Organisation (ZOORF)" has 360 members, 90% of which consists of retailers and 10% of which consists of importers and wholesalers. "ZOORF" estimates that at least 50% of the Swedish companies selling live pets and pet food are member. The majority of the main importers and shops are member.

*Pet shops*

Generally, the pet traders' annual turnover is dominated by the selling of various other products than live animals, such as accessories, cages, food and books. However, the selling of live animals can also make a significant contribution to a shop's income, especially when this shop is specialised in exotic species. The trade networks and related activities differ between the EU Member States, depending on the country's role in the global market. There are many importers, exporters, wholesalers, retailers and breeders, but there is not always a clear distinction between these functions as e.g. one shop can be an importer, retailer and breeder at the same time. Overall, a few larger shops are often of major importance in the exotic pet sector, while a substantial number of smaller shops only occasionally sell a specimen from a CITES-listed species.

*Denmark:* The live pet industry in Denmark is represented by some 230 pet traders selling live pets and products to private consumers or retailers. However, the market for exotic specimens is dominated by only a few importers and retailers that are often very active. Some Danish traders have specialised in supplying the Swedish retail market with reptiles.

*France:* Overall, the number of living animal outlets in France can be estimated to be around 4,000, of which around 2,500 to 3,000 sell non domestic animals (Mr. M. Georgel, PRESTANIMALIA, pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002). Generally, these outlets can be subdivided into six main professional networks:

1) Hyper and supermarkets
2) Do-it-yourself stores
3) Garden centres
4) Agricultural self service shops
5) Franchisee pet shops
6) Traditional pet shops

However, these networks also include shops that do not have a pet department at all, as well as shops that sell only equipment, food and accessories and/or domestic animals. Therefore, it is not easy to obtain the exact number of establishments that actually sell live exotic animals. The hyper and supermarkets and do-it-yourself stores cover a total of around 400 pet departments, but it is not clear what percentage sells live animals (Mr. Michel Hignette, General Manager of the Aquarium of the 'National Museum of Africa and Oceania Arts', pers. comm. to A. Affre, TRAFFIC Europe – France, May 2002). The 2,108 garden centres in France cover 1,200 pet departments, of which at least 402 sell live animals (Animal Distribution No 126, January 2002). Further, there are 1,945 agricultural self service shops, of which at least 64 sell live animals (Animalerie Magazine, 2001). The main franchisee pet shops cover 125 outlets for living animals and there are around 1,500 to 2,000 traditional pet shops that are, to some extent, selling live exotic animals (Mr. Michel Georgel, PRESTANIMALIA, pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002). The traditional pet shops, therefore, form the most important network for the sale of exotic animals in France. In addition to these businesses that target private customers, there are also importers, breeders and wholesalers that target commercial customers. A total of 450 exist in the country, some of which are specialised in certain species groups (e.g. parrots), while others cover a large range of animals (Mr. L. Ladonne, PRODAF, pers. comm. to A. Affre, TRAFFIC Europe – France, May 2002).

*Greece:* There are around 300 pet shops in Athens alone, the majority of which is not listed as such in the Yellow Pages or in the telephone directory (only 11 stores are listed under "birds" and 43 under "live pets" for the entire country in the online directory). Commercial establishments in Greece tend to be listed under the owner's name, not by the type of business. Pet shops are usually small and mainly rely on customers from the neighbourhood. Nevertheless, the market is dominated by five or six large commercial establishments that are being supplied by 20 to 30 importers. The largest pet importer in the country hosts the only official quarantine facilities for live animals entering Greece from non-EU countries, in operation since February 2002. This importer is responsible for 40% of the total number of live birds imported by the country, while the second largest importer is responsible for 28% of the total live animal trade. These two establishments provide live animals to most of the small pet shops scattered throughout the country.

*Italy:* The national market of live animals and plants has increased in the last years and there is a high level of diffusion of shops with more than 8,000 points where it is possible to buy exotic animals or plants (specialised and generic pet shops, garden shops, agricultural shops, supermarkets, aquaria, commercial centres and others). Only in the city of Rome there are about 500 such shops, as much as in Milan. Around 20 importers control the national market for these exotic animals and plants.

*Portugal:* In total, there are around 550 pet retail stores in Portugal. These retail stores generally avoid importing live animals themselves. Two retailers had once tried to do this, but they had failed due to beginner's mistakes. Almost all animals had died during transportation and the remaining survivors were confiscated for violation of the CITES provisions. Of the 49 identified importers of birds, reptiles, amphibians and ornamental fish in Portugal, 29 import animals from different species groups. Only 30 of these 49 identified importers are authorised by the Ministry of Agriculture to trade in live animals, while almost all of them claimed to import live specimens regularly.

*Spain:* In Spain, it is becoming more common for pet shops to be zoological centers as well and small family-owned companies are likely to disappear. There are currently considerable constraints for people wishing to start this kind of business.

*Events*

The fairs that target the general pet sector mainly have commercial objectives and regularly allow only business participants. These kind of events are often either organised by the fairground premises themselves or by commercial associations. There are many more pet products for sale than live animals, but these fairs are generally very large and cover important networks for the industry.

*Belgium:* In Belgium, there is the "Anido – professional fair for the pet care industry" (15 to 16 February 2004 in Kortrijk). It's a biennial fair and, during the last fair in 2002, there were 105 exhibitors from eight countries (Belgium, the Netherlands, France, Germany, the UK, Italy, Poland and China), the fair surface was 4,998 $m^2$ and the number of visitors was 4,831 (Anido, 2002). The visitors were all professionals, from retailers to garden centers, dog breeders and wholesalers. During the fair, awards are presented to exhibitors for several categories (best newly developed products and best exhibition). At "Anido 2002", there was, for the first time, an award for the best pet shop. This award was based on service to the customers, extent of products in stock, specialisation, knowledge of products etc. (Anido, 2002).

*Finland:* There are three fairs of relevance in Finland. The "Otusmessut" (from 28 to 29 September 2002 in Espoo) is a large annual fair for professional wholesalers and retailers, the "Zoo expo" (January 2003 in Helsinki) is another large fair for traders, but also for hobbyists, while the annual "Pet World" (from 24 to 25 August 2002 in Helsinki) targets hobbyists. About half of the interviewed businesses (seven out of 14) take part in some of the fairs.

*France:* Apart from small local exhibitions, there are about ten large exhibitions for pets in France. These events allow exhibitors (pet shop professionals) to present and sell their animals, either directly on the spot or by contacting clients for a future purchase. The two most important exhibitions in France are the "Animal Expo" and the "Expozoo", both organised by "L'européene de Salons/BEPP" that also publishes "Animalerie Magazine". "Animal Expo" is an annual exhibition intended for the public (from 28 to 29 September 2002 in Vincennes). It gathers around 100 exhibitors and approximately 40,000 visitors. "Expozoo" is a biennial professional exhibition (from 23 to 25 March 2003 in Paris) that travels across Europe and that gathers around 250 exhibitors and 18,000 visitors.

*Germany:* The "Zentralverband Zoologischer Fachbetriebe (ZZF)", the German national commercial association for pet shops, organises two large biennial fairs. The first one is the "Deutsche Zoofachmesse" (16 to 18 May 2003 in Wiesbaden) and the second one is the "Interzoo" (9 to 12 May 2002 in Nürnberg). The "Interzoo" is an international trade fair for pet supplies and only 5% of the exhibitors trade in live animals, which are mainly ornamental fish (90%) and in some cases mammals, reptiles and amphibians. The organiser states that it is the largest fair for pet supplies worldwide (J. Thurk, Deputy CEO, ZZF, pers. comm. to M. Bugert, TRAFFIC Europe – Germany, May 2002). At the last edition, there were 1,029 exhibitors from 45 nations and 23,000 visitors (100% commercial businesses). This fair knows a long history and has been organised 27 times. In the past it took place in Wiesbaden, but as it grew larger it was moved to Nürnberg.

*The Netherlands:* The Dutch association "DIBEVO - Vereniging Landelijke Organisatie" organises the biennial "Dibevo Vakbeurs" (2 to 3 November 2003 in Den Bosch). In addition, "InterMedium Publishers b.v.", the publisher of the magazine "PETS International", organises the annual conference "Global Pets Forum" (7 to 8 November 2002 in Munich, Germany).

*Portugal:* There are two main pet fairs in Portugal: "Expozoo" and "Petfil". "Expozoo" (6 to 9 February 2003 in Porto) is organised by "EXPONOR" (Oporto International Fair) and takes place biannually. It is dedicated to the live pet industry in Portugal and participants include retailers, importers of live animals, specialists in animal nutrition and veterinary science, magazines and associations. At the last edition, there were 33 exhibitors and

20,000 visitors. "Petfil" is organised for the first time (27 to 29 September 2002 in Lisbon). It is very similar to "Expozoo" and its purpose is to join professionals of the live pet industry.

*Spain:* Two fairs targeting the general pet sector have been identified. "Salón Internacional del Sector de Animales de Compañía" (21 to 23 June 2002 in Madrid) is an annual fair and access is restricted to professionals of the sectors of food, suppliers, cosmetics, beauty, pharmacology, health, hygiene and care. "Festival de la Mascota SIZOO - Sálon Internacional de la Zootecnia" (16 to 19 October 2003 in Barcelona) is strictly professional and gathers people from the sectors of aquaria, terraria, dogs, cats, birds, pets, food, health, equipment and press. Technical and scientific meetings are also held.

*Sweden:* "ZOORF" (the Swedish Pet Trade Organisation) will organise their first fair for companies in the pet industry (October 2003 in Stockholm).

### *Magazines*

Magazines that target pets in general, without distinct specialisation for one of the animal species groups, are quite abundant. First of all, the international and national commercial (umbrella) associations often publish their own magazines. Further, independent publishers sometimes distribute magazines for consumers and pet shops occasionally have their own magazines.

*International commercial associations*
The "Scandinavian Pet Trade Union" distributes its magazines to 3,000 to 4,000 pet shops, importers, organisations and private subscribers in Denmark, Finland, Norway and Sweden. Further, both "Ornamental Fish International (OFI)" and the "Marine Aquarium Council (MAC)" have a quarterly magazine.

*National commercial associations*
Magazines by national commercial associations either specifically target the members, the entire commercial industry and/or the consumers. The subjects presented in these magazines are generally quite broad, covering business and financial info when targeting the commercial sector and pet care info when targeting the consumers. Only very few articles specifically concern exotic species, their care and/or their conservation status.

*Finland:* "Suomen akvaario- ja lemmikkieläinkauppiaiden liitto" (the Finnish Union of Aquarium and Pet Traders) has a section in the Scandinavian magazine "Pet Scandinavia" (1-2 times/year). It will publish its own magazine, starting in the fall of 2002.

*France:* "PRODAF" (interprofessional trade union of manufacturers and product and pet distributors) has its own magazine called "PRODAF News".

*Germany:* The "Zentralverband Zoologischer Fachbetriebe (ZZF)" has two magazines, one for the industry ("Zoologischer Zentral Anzeiger (ZZA), Das Fachmagazin für den Zoofachhandel"), which is published monthly, and one for customers ("Magazin der Tierfreunde, Die Kundenzeitschrift des Zoofachhandels"), which is published bi-monthly.
*Greece:* Although there is no national umbrella association in Greece, a relevant magazine that could fall in this category is the "Ktiniatriki Enimerosi", which is published bi-monthly by the "Hellenic Veterinarian Association".. It is distributed to veterinarians throughout the country and focuses on scientific and administrative issues.

*The Netherlands:* "DIBEVO - Vereniging Landelijke Organisatie" has three magazines. There is one newsletter for members only ("Dibevo Plus"), which is published bi-monthly, one magazine available for the entire commercial pet sector ("Dier & Tuin"), which is published monthly, and one magazine available for consumers ("Dier & Vriend"), also published monthly.

*Sweden:* The "Swedish Pet Trade Organisation (ZOORF)" has one magazine ("Nytt"), published bi-monthly.

*Independent publishers*

Most magazines on live animals from independent publishers focus on domestic animals (primarily cats, dogs and birds) and, similar to the magazines from commercial associations, only few articles specifically concern exotic species, their care and/or their conservation status. These magazines generally target consumers, are widely distributed and available in kiosks.

*Denmark:* One pet magazine in Denmark is "Dyrevennen", published monthly and focusing mainly on domestic animals for consumers.

*Finland:* There are two major independent magazines: "Lemmikki" (published monthly) and "Lemmikit ja Eläinmaailma" (published eight times a year) that are aimed at young pet hobbyists and include articles mainly on domestic animals. Further, there is one quarterly magazine "Korkeasaari" published by the "Korkeasaari Zoo".

*France:* The two monthly magazines "Animalerie Magazine" and "Animal Distribution" are very important for the pet industry and target the pet shop professionals. They provide a lot of business information (e.g. market studies for pets, activities of large shops, legal information etc.). "Animalerie Magazine" is published by "L'Européenne de Salons/BEPP", which also organises two large pet fairs.

*Greece:* This country knows two major independent magazines: "Kynologia" (published monthly), which seems to be the most formal and important one, and "Ta Skylia mas kai Emeis" (published bi-monthly), which is less formal. Both are purchased by pet owners, hobbyists, breeders and retailers, but do not seem to address exotic species very often.

*The Netherlands:* There is one Dutch magazine that specifically targets exotic animal and plant species in general. It is called "Onder het Palmblad" and is published bi-monthly. The articles contain biological information on certain species and advice for consumers, breeders and propagators. The texts are provided by readers and illustrated with many colour photographs. Another magazine published in the Netherlands is "PETS International", published bi-monthly in English by "InterMedium Publishers b.v.". It is widely available for businesses worldwide and contains a lot of information on various subjects, occasionally covering exotic species.

*Spain:* "ESPECIES" is a free commercial magazine distributed to pet shops. It includes several sections devoted to different groups of pets, such as reptiles, birds, fishes, dogs and cats, and a section about new pets. This magazine includes information on legislation, fairs and events, but there are also technical articles discussing the care of animals and a section with interesting contacts for professionals. "INSTINTO" is a magazine that is distributed to pet shops and veterinary clinics. It is not technical, but rather addressed as non-specialised, and includes articles on regulations in the sector and the care of pets. There are several sections devoted to different animal groups such as fishes, reptiles, birds, dogs and cats. Another section features commercial news and provides information about events and fairs, as well as a showcase to advertise new products related to the sector.

*Pet shops*

The larger and more established pet shops often maintain a website and occasionally also publish a magazine or newsletter. In some cases, the websites are very comprehensive and contain detailed information on the products and animals for sale, often with links to other websites of interest.

*Portugal:* "Zoocultura" is published twice a year by one of the largest importers of animal products and live animals in Portugal. It is distributed freely to all the customers (about 540 retailers of products and 60 retailers of live animals) and it is accessible to everyone visiting these retailers. It has been published since 1988 and is widely known among retailers and importers. It contains articles on birds, ornamental fish, reptiles, dogs and cats, as well as advertisements to products.

*Awareness*

The level of awareness of CITES and the EU Wildlife Trade Regulations for the live pet industry is mainly reflected by the awareness of the national commercial associations, of the pet shop owners themselves and of the organisers of fairs. These are the representatives of the sector and should be the targets for any information campaign. Further, although the awareness of the editing staff for independent magazines is not directly relevant, their interest is crucial for the possibility to publish articles and advertisements that are distributed to important parts of the sectors, possibly also targeting people that can not be reached through other channels.

*National commercial associations*

The national commercial associations play or can play a very important role in educating, informing and assisting their members (and sometimes non-members) with regard to CITES and the EU Wildlife Trade Regulations. It is, therefore, necessary that they have a good knowledge of the legislation and are in the position to answer detailed questions. Seven associations were interviewed in Finland, France, Germany, the Netherlands and Sweden with regard to their positions, opinions and suggestions.

*Finland:* "Suomen Akvaario- ja lemmikkieläinkauppiaiden liitto" (the Finnish union of aquarium and pet traders) is very well aware of CITES and the EU Regulations, although additional information will always be welcomed. Their sources for information currently include the Management Authority and the internet. One person within the committee of the association is a CITES expert. They inform their members and also have discussions among each other about subjects related to CITES and the EU Regulations. Further, the magazine "Pet Scandinavia" publishes relevant articles (A. Seder, Suomen Akvaario- ja lemmikkieläinkauppiaiden liitto, pers. comm. to P. Huuska, WWF Finland, June 2002).

The President of this association thinks that the retailers' knowledge of the legislation is good, although people living in the countryside are not well informed, mainly due to the fact that they do not use many exotic species (A. Seder, Suomen Akvaario- ja lemmikkieläinkauppiaiden liitto, pers. comm. to P. Huuska, WWF Finland, June 2002). Overall, the CITES-listed animal species traded by the members of this association include testudos, frogs and snakes. However, these animals are becoming less popular in Finland, as people prefer to have animals that are easier to take care of. Only a minor percentage of businesses, mainly specialised shops, apply for permits. There are no major difficulties with the legislation, the info is easy to find when needed and the rules are necessary. However, it would be useful if some more information could be distributed, preferably per mail (A. Seder, Suomen Akvaario- ja lemmikkieläinkauppiaiden liitto, pers. comm. to P. Huuska, WWF Finland, June 2002).

*France:* "FNMJ", "PRESTANIMALIA" and "PRODAF" all seem to be aware and well informed about CITES and the EU Regulations. "FNMJ" is an important and well structured association. It has various communication tools, which it uses regularly to provide information to its members. However, the President believes that the general understanding of CITES and the EU Regulations in the sector is not good. His suggestions to improve the implementation of the legislation include the establishment of a national committee with authorities and professionals, the organisation of one or two workshops per year and the simplification of publications on the regulations and related developments (Mr. Ferlus, FNMJ, pers. comm. to S. Ringuet, TRAFFIC Europe – France, June 2002).

"PRODAF" is also an important structure. This organisation generally takes information on the legislation from official journals (for France and the EU), from the CITES website and from CITES publications (L. Ladonne, PRODAF, pers. comm. to A. Affre, TRAFFIC Europe – France, May 2002). The fact that the Executive Secretary will attend the next Conference of the Parties to CITES in Chile in November 2002 shows their knowledge and interest. This trade union also plays an active role in the development of regulations (beyond CITES and the EU Regulations), since it takes part in the development of an European Convention, which is in the process of being ratified by the Commission and which would force people selling animals to provide information on the current legislation (by means of a passport, showing every required fact on each animal). "PRODAF" has a website, which provides information on legislation, and a newsletter for members ("PRODAF News"). The association thinks that CITES and the EU Regulations are important for the conservation of species, but it is also necessary to avoid overprotection. E.g., some cockatoo species have been overprotected in Australia and now they are vermins (L. Ladonne, PRODAF, pers. comm. to A. Affre, TRAFFIC Europe –

France, May 2002). Further, in order to improve implementation of CITES and the EU Regulations, there is a need for better communication on national and European levels. "PRODAF" deplores the fact that the French legislation often goes far beyond the European regulations, which penalises French professionals on the European market (L. Ladonne, PRODAF, pers. comm. to A. Affre, TRAFFIC Europe – France, May 2002).

"PRESTANIMALIA" is a much smaller trade union, which does not have much funding. Their website does not provide information on CITES and the EU Regulations. Yet, they think that the legislation is important and seem to be willing to work on improving awareness amongst the members as well as non federated professionals. They believe that workshops with professionals and authorities could make a contribution to improve implementation of the legislation (Mr. Georgel, pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002).

*Germany:* The German commercial association for pet shops, the "Zentralverband Zoologischer Fachbetriebe e.V. (ZZF)", is well aware of CITES and the EU Regulations. They obtain information from the Official Journal, the Management Authority and the internet and they inform their members through fax and e-mail about all changes in the legislation (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002). Questions from the members about the EU Regulations refer, in most cases, to the protection status of certain species. Normally, these questions can be answered right away, but when they are a bit more complicated, the relevant authorities are contacted (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002). As for general awareness in the sector, Mr. Thurk states that pet shops mostly have information on species they are actually trading. With regard to those species, it is clear that permits are required and that records need to be kept. He also thinks that the impact of the legislation on the sector mainly affects the cheaper species in terms of bureaucratic burden and fees, since those costs are the same for expensive species (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002).

Mr. Thurk believes that the information available about the legislation is generally sufficient. However, he states that it is sometimes problematic to determine the protection status of a species in case the scientific name is not known, or if the scientific name differs from the one in the Appendix or Annex, or when there is a import suspension, but this is not yet published. In most cases, all this can be clarified through a phone call to the authorities (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002). The "ZZF" would appreciate an always up-to-date list of species on the internet, where different names could be put into a search engine, including names in other languages and in the language of the country of origin. There is a need for better information on the opinions and import restrictions established by the EU Scientific Review Group and interest for timely trade data, especially on trade in Annex D species, easy and user-friendly database (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002).

CITES and the EU Regulations are thought to be useful as an additional measure to habitat protection, although the implementation could be improved with regard to certain aspects. Local authorities are insufficiently informed about the current status of the regulations. Knowledge about the species is also insufficient, since it is indispensable to recognise a species in order to enforce the legislation properly. Additionally, more expertise would certainly contribute to more acceptance and co-operation from the side of breeders, traders and keepers. It should, for instance, not happen that the authorities insist on checking breeding activities if this disturbance leads to a stop of the breeding activity (J. Thurk, Deputy CEO, ZZF, pers. comm. to J. Roos, TRAFFIC Europe, June 2002).

*The Netherlands:* The "DIBEVO - Vereniging Landelijke Organisatie" is aware of CITES and the EU Regulations, sufficiently to educate the members. However, specific information is not always easy accessible. Mr. de Jongh states that article 9(4), about ensuring proper care for live specimens of Annex B species, is difficult to implement (J. Th. de Jongh, DIBEVO, pers. comm. to K. Berkhoudt, TRAFFIC Europe, July 2002). For importers and wholesalers it is not so difficult to check whether their customer take suitable care for the animals, but for retailer this is close to impossible. In the Netherlands, there are plans to implement a list of animals that can only be kept by people when they meet certain requirements. Before this is being enforced, all trade can continue without any control concerning expertise, methods of keeping animals in stock, health of the animals and registration of the stock and, thus, the article 9(4) remains a theoretical rule (J. Th. de Jongh, DIBEVO, pers. comm. to K. Berkhoudt, TRAFFIC Europe, July 2002).

"DIBEVO" obtains information about the legislation from the internet and through questions to the authorities and distributes information to the sector (members and non-members) through the magazine "Dier & Tuin", which is distributed to the entire commercial pet sector. Mr. de Jongh thinks that the businesses that are actually dealing with listed species are well aware of CITES and the EU Regulations and that restrictions, if required for the protection of species, are of course accepted. However, if animals are confiscated without any legal ground because lack of knowledge of the authorities and if these animals disappear or die at the confiscation center, then this is regarded as being unacceptable, also from an animal welfare point of view. Further, the procedures for permit applications are sometimes very lengthy. The permits are sometimes issued only when the provider has already sold the animals elsewhere in the world, which causes a loss of money and a lot of annoyance (J. Th. de Jongh, DIBEVO, pers. comm. to K. Berkhoudt, TRAFFIC Europe, July 2002).

In order to improve the implementation of the legislation, Mr. de Jongh suggests that two persons should be appointed at the Management Authority, specifically for contacts with the traders. They should always be present, have sufficient knowledge and authorised to provide answers or information. This could create more clarity and trust for the traders (J. Th. de Jongh, DIBEVO, pers. comm. to K. Berkhoudt, TRAFFIC Europe, July 2002).

*Sweden:* "ZOORF" (the Swedish Pet Trade Organization) seems to have a good awareness of CITES and the EU Regulations. They usually obtain information from the Management Authority and they distribute information to their members through their magazine and through letters. This association thinks that CITES and the EU Regulations are somewhat stiff-legged and slow and implementation could be improved by regular meetings and co-operation to exchange information (M. Danielsson and B. Lindgren, ZOORF, *in litt.* to M. Forslund, TRAFFIC Europe – Sweden, 28 June 2002).

*Pet shops*

The pet shops (including importers, exporters, wholesalers, retailers and breeders) are the ones dealing with CITES and the EU Regulations regularly. They should know the laws, especially for the provisions that concern their activities, and should be kept informed by the authorities and the national commercial associations. The shopkeepers' awareness and willingness to co-operate on implementing and enforcing the legislation are very important for obtaining a higher efficiency in trade and trade controls.

*Austria:* One shop, specialised in aquaria and terraria, has been interviewed. The shopkeeper has a high knowledge of CITES and the EU Regulations and obtains the relevant information from the "Wirtschaftskammer Österreich".. As CITES-listed species are concerned, the shop mainly trades in reptiles that come from breeders in Austria and Germany. These breeders are reliable and provide permits directly with the animals. The customers of this shop are for 95% private persons, for 5% retailers and rarely breeders. The customers are provided with all the necessary information in order to care for the animals, but it is impossible to check whether this actually happens. The shop keeper is very content with the legislation, thinks that it is an important tool for nature conservation and that it makes trade much clearer.

*Belgium:* One bird shop and one reptile shop have been interviewed in this country. The shopkeepers both are well aware of CITES and the EU Regulations, but both have some problems in understanding and staying up-to-date with the activities and decisions of the EU Scientific Review Group. They obtain information from the Management Authority, from the official governmental paper and from "Andibel".. The owner of the reptile shop also mentioned the internet and the submission of applications (if denied, he learns about the status of the species). The overall knowledge of the legislation in the sector is thought to be high for professionals, while people who occasionally sell a specimen from a CITES-listed species or private persons are thought to have little knowledge.

The legislation is regarded as being very important and the impacts are mostly relevant for importers in terms of time constraints. However, both shopkeepers provided quite some suggestions for improvement of the implementation. According to them, there is a need for regular updates, automatically sent to the stakeholders and the people who have expressed their interest. Further, there should be one website that shows the lists of species with the most recent changes and, if possible, the species names should be complemented by photographs. There is a need for more communication with the parties concerned, clear agreements and clear

information and there should be an international certification scheme for pet shops. Further, the time frame for the application of permits is too long. The animals have to stay three months in country of origin, then the application takes another three months and, in total, it sometimes taken nine months before the animals can be imported. During this period, animals occasionally die. Also, the procedures for making decisions on permit applications should be changed in such a way that, when a species can no longer be imported, the applications received before the date that this was decided should still be granted. There should, thus, be a clear date on which the lists of species are adjusted. And last, the positive list in Belgium for species that are allowed to be kept as pets should be abolished. It causes the illegal trade to increase.

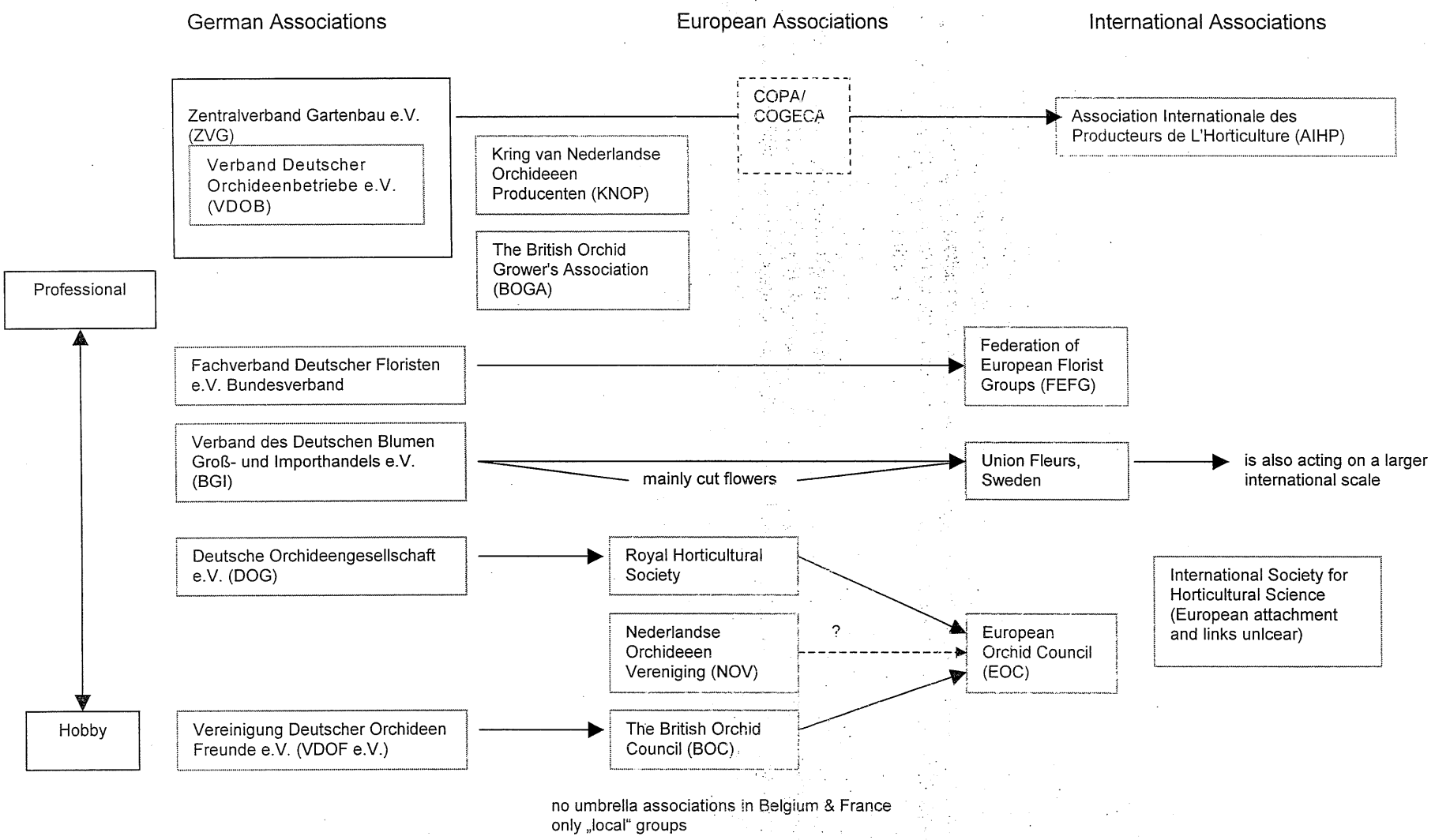
*Finland:* Fourteen traders have been interviewed in this country, including some permanent exhibition that do not sell animals to private persons. The awareness of interviewed traders is variable. Those who import CITES-listed species have a very good knowledge of CITES and the EU Regulations. Some of the retailers are less aware of the details, as they do not import the animals themselves or obtain a finalised certificate with the animal itself. The channels for obtaining information were most often mentioned to be 1) active phonecalls with the Management Authority, 2) the internet, 3) letters from the Management Authority and 4) training courses. Other mentioned sources were friends, veterinarians and the media. The pet sector's awareness in general is experienced differently by the traders. About half of them think that the regulations are recognised and followed well, but some claim that certain wholesalers and retailers are not aware of the regulations or are consiously breaking the import- and sale regulations. Some traders claimed that several retailers import animals, e.g. testudos or parrots, without permits or buy them from gray markets. The reasons for breaking the rules are thought to be 1) it is too troublesome, time-consuming, expensive and uncertain to apply for permits, 2) the quarantine regulations are tight and time-consuming, 3) it is much cheaper for animal retailers to buy animals through gray markets.

Most of the traders think that the customers do not know enough about CITES and the EU Regulations and are not able to ask for the relevant permits and certificates. One retailer explained that several of his customers had bought animals (e.g. testudos and parrots) through the Yellow Pages. The animals were claimed to be long-time pets, but it soon became obvious that this involved commercial trade. It was also mentioned that a mail-order business of live pets is becoming more common in Finland. Some customers had bought animals this way without assurance of CITES-permits, e.g. from Germany. Most of the shopkeepers are assured, that their customers have enough information on caring for the animals, as: 1) The necessary information is given to customers, 2) The knowledge of customers is checked and the animals are not sold in case of suspicion, 3) The animals are so expensive that they are well taken care of.

The traders made many suggestions to improve the awareness and implementation of CITES and the EU Regulations in their sector. They think that information on the permit procedures, the regulations and the species list is difficult to find and difficult to understand. The authorities should do more active informing, especially in cases of changing regulations, and the best channels for distributing information are thought to be a) clearly written mailed letters from authorities and b) improved websites of the authorities, of the cities' veterinarians and of CITES itself. It was also mentioned that the authorities should be easily reachable and be able to provide the required information in clear language. Further, the local veterinarians, who are often the authorities for inspections, were claimed to have too little knowledge about the regulations and their ability to identify threatened species was questioned. They should get more training on species recognition or be accompanied by an expert in case of identification of species at the Customs or in the pet shops. It was also suggested that the Management Authority tightens the control of unreliable pet shops and Yellow Pages, as this weakens the success of reliable businesses. Especially the gray market sale of parrots and testudos was seen problematic. Other comments were made about the large numbers of forms that need to be filled in to import a specimen from a CITES-listed species into Finland and that one way to improve the motivation of completing these forms could be created by giving the related fees to nature conservation. It was also mentioned that there should be better ways to treat the confiscated animals, as they are too often put to sleep.

*France:* Four garden centers, three franchisee pet shops and seven importers have been interviewed. The sector of garden centres seems to be well informed and aware of CITES and the EU Regulations. They have good internal communications tools (they often edit their own magazine). One of the main stores in this sector already

**Figure 1.**
**Preliminary sketch of the European linkeages of associations trading orchids or representing orchid hobbyists and growers, with an emphasis on Germany.**



welcomed people from the "Brigade Convention" in Washington in order to raise the awareness of its staff and inform them on the regulations.

The level of knowledge in franchisee pet shops and small traditional pet shops seems to be very heterogeneous in general. For some owners, however, "CITES" only represents another line on the bill given by the wholesaler. Many of them are not member of a commercial association and, therefore, do not receive information about the laws.

The sector of importers seems to the best informed about the regulations and their functioning. They are aware of the different channels for obtaining information (Directorate-General for Environmental Protection, CITES office at the Ministry for Environment and Sustainable Development, Customs, Animal Health Services) and they have regular contacts with people in these structures.

All shops indicated that they would like to receive better information about the development of general regulation, including the changes in the status of species. They would also like to get similar answers to questions asked to different sources, which does not seem to be the case for the moment.

*Germany:* One reptile shop has been interviewed in this country. The owner of the shop has a high knowledge of CITES and the EU Regulations and obtains his information from the internet, from magazines (especially those from the reptile hobbyist association, the "DGHT") and from the authorities. He thinks that the legislation is very important for the conservation of species, but he has some difficulties though with the different interpretations by the many German regional authorities. He suggests that there should be clear and uniform rules. The customers to his shop are mainly private owners (80%), but also breeders (10%), retailers (8%) and wholesalers (2%). The shop keeper is assured that the customers take good care of the animals, because they are quite expensive.

*Greece:* Twelve shops have been interviewed in this country. The retailers have a very low awareness, something that was reported by themselves during interviews as well. Some retailers do not even know what the term "CITES" means. However, the vast majority wishes to learn more, particularly on general issues, and most of the retailers think that CITES and the EU Regulations form an important tool in the conservation of biodiversity. The greatest point of ignorance is on the legal consequences for illegal trade. There seems to be higher awareness among the importers. For these people, in contrast to retailers, the legislation is a basic element of their work. One importer stated that retailers do not know anything about the rules, because other people take care of the paperwork (namely the importers).

The main source of information is the Management Authority, followed by the internet. Many retailers learn about the legislation from acquaintances. None of the individuals interviewed identified magazines as a source of information. A general comment provided through the interviews on the implementation of the legislation is that the bureaucracy involved hinders responsible handling of the situation. Many retailers suggest further information as a tool, particularly with regard to the existing and recent legislation, while others stated that there should be more incentive for breeders, as well as benefits for traders who act responsibly. Seminars were also proposed, as well as holding events with the authorities and the traders together.

*Italy:* Four pet shops have been interviewed in Italy. The knowledge of the shopkeepers with regard to CITES and the EU Regulations is reasonable, but somewhat superficial. One shopkeeper claimed to have difficulties with the interpretation of the EU Regulations. Generally, they obtain information from the Management Authority and the hobbyist associations, but sometimes different authorities provide different answers and it is complicated to receive clear information. The overall knowledge in the sector is experienced to be not very good, due to difficulties to understand the laws, especially with regard to the sale of captive bred animals. Further, one shopkeeper mentioned that there is still an illegal market with European countries, such as the Netherlands, Belgium, Austria and Germany. All shopkeepers think that the legislation is very important for the conservation of species. However, there are some problems with regard to obtaining certificates (high costs and long procedures) and with regard to understanding the marking and identification systems. Suggestions for improving the implementation included the distribution of understandable information, a clear interpretation of the law by all parties and national meetings between authorities and stakeholders.

*The Netherlands:* Three bids shops, three reptile shops and one aquarium shop have been interviewed in this country. All the shopkeepers are well aware of CITES and the EU Regulations, but most of them would like to receive additional information. Current sources were mentioned to be the Management Authority, the Inspection Service, the national commercial association ("DIBEVO"), the internet and discussions with colleagues. One shopkeeper mentioned to have obtained different answers to questions from different authorities, which makes the understanding of the legislation very confusing. Another shopkeeper said that it is very difficult to stay up-to-date with the developments and the changes and that the Management Authority should regularly inform the stakeholders.

Generally, there seems to be a need for one source, providing an overview of all the laws and updates in an easy-to-understand language. Specific subjects that need clarification were mentioned to be the EU import bans (the decisions made by the EU Scientific Review Group), the differences in implementation between the EU Member States (not only regarding the international trade, but also the national trade and keeping of CITES-listed species), the Dutch national legislation and the rules for national trade and the keeping of birds (e.g. on the need for registration of footrings when buying, selling or exporting birds).

The overall knowledge in the sector was experienced to be low, especially because of the difficulties in obtaining information, the many changes, the confusion about the national law and the differences between EU Member States. One importer stated that they inform their customer (retailers) on how to keep their administration and they regularly give advice on buying from private keepers and complying with the legal requirements. One shopkeeper mentioned that the general knowledge has improved now that "DIBEVO" has adopted a more active role in informing its members.

The legislation is generally thought to be important for species protection, although there is also a need for habitat protection. One shopkeeper explained that there is a contradiction between CITES and the EU Regulations. Many species can not be imported by the EU, but are allowed to be imported by countries in the rest of the world. He stated that there should rather be either an international prohibition or an international permission. Diversity of legislation worldwide spreads the idea that CITES does not know what needs to be protected and what not. If a population becomes threatened, then the trade should be internationally prohibited, otherwise it does not make sense.

The impacts are thought to be high mainly for importers, in terms of administration and financial costs. One importer mentioned that it can take one month for a CITES document to be arranged (during which the animals often also have to wait for shipment) and these documents cost 50 a piece. Another importer stated that the long period of time that is needed for the CITES authorities to make a decision on applications (months or even years) is a large problem that costs the shop tenthousands euros of income annually. Currently, the traders have to get the export permit before trying to obtain the import permit. In case the import permit is refused, which occasionally happens, there is financial loss. It is also disturbing to the pet shopkeepers that there is a lot of trade by private persons through the internet and fairs that is not being checked as thoroughly as the official shops.

All the shopkeepers provide information to the customers on the care requirements for the specimens, although some spend more time and efforts than others. Generally, the customers are free to return, call or e-mail in case of problems and questions. One shopkeeper has put a lot of information about the animals on his website and another shopkeeper asks the customers to return to the shop later to discuss the state of the animal. It was also mentioned that people who buy expensive animals are often also prepared to spend more energy in taking care of them. Most shopkeepers are in favour of a certification system, which could be a label for the quality of the shop and which could discourage the businesses that have mainly commercial motivations, low knowledge and low enthusiasm. In the Netherlands, there is only one school were people can do a course on the care for animals (in Barnevelt). This could be expanded to other schools and to more official certificates for people that passed the exam. Also regular inspections would be accepted to verify the legality of the trade activities.

Suggestions for improving the implementation of CITES and the EU Regulations included e.g. the establishment of a working group, consisting of the authorities, "DIBEVO", the national animal welfare organisation, traders and seriously interested people. Such a working group should discuss the issues, problems, plans for the future and improvement of communication. Also, shopkeepers and hobbyists would like to be involved in the making

of decisions and be taken more seriously. They can be regarded and specialist herpetologists and can provide useful advice regarding the formation of legislation. Further, it was mentioned that changes based on article 4.2 should be put on the websites each month. Then the traders know in advance which species can no longer be imported and the exporters can choose not to get these species in stock (instead of hearing later that they can not be exported to Europe after all). The animals are already captured at that point in time, while the purpose of the protection is that they are not captured at all. This would also prevent a lot of administration, because it would prevent the application of permits for which no permission will be given anyway.

*Portugal:* Seventeen shops have been interviewed and it was found that the shopkeepers have distinct levels of knowledge, depending on their role on the market. Importers and wholesalers are usually more aware of the existence of CITES and the EU Regulations and to some extent of the contents. The majority of the interviewed retailers have no knowledge and, in most cases, are not interested in receiving information, because they believe their suppliers are acting according to the law. All these retailers claimed to obtain information only through their suppliers.

Though importers are better informed about these matters, they do not necessarily have a high knowledge. When asked about customers' suitability to care for specimens of species listed in Annex B, none of them knew about it and many asked which species exactly are listed in Annex B. There is also confusion about the CITES provisions and its relation to the Commission Decision 2002/279/EC (laying down the animal health requirements and the veterinary certification for the import of birds, other than poultry, and the conditions for quarantine). Importers usually obtain information on the legislation through their international suppliers and the Management Authority.

The overall knowledge in the sector concerning the legislation was experienced very differently, from very good to very bad. Most shopkeepers think that the legislation is very important, although one importer mentioned that prohibiting trade of certain species is not a solution, because retailers can still obtain them and illegal specimens are transported in very bad conditions. The impacts of the laws are thought to be mainly financial, due to problems in applying for permits, bureaucracy and certain trade restrictions.

Importers and retailers recommended that official institutions should provide more information about these subjects. Other suggestions included the establishment of better communication channels between the international and national authorities and the professional traders, a more accurate identification of species by the Inspection Service, the increase of inspections throughout the country (also for private owners), the raising of fines for violation of the laws and the decentralisation of CITES services in Portugal. One trader proposed a system of quotas for retailers, which would allow everyone to sell only a definite number of specimens of each species. This would cause the prices to increase and the number of imported specimens to decrease.

*Spain:* Ten pet shops have been interviewed and, generally, the shopkeepers are well aware of CITES and the EU Regulations, but most of them were interested to obtain more information. Their current sources include the Management Authority, the Inspection Service, the internet, colleagues and importers from other European countries (because the administration in these countries provides importers with more and better information). The general knowledge in the sector is regarded as medium high and gaps of knowledge are identified to include the listed species, the trade procedures and the responsible institutions.

Most shopkeepers think that the legislation is important for nature conservation, although some remarks were made, e.g. on the difficulties to trade in captive bred specimens, on the need for common worldwide application and on the higher efficiency of regulations that would only allow trade in species that are not at risk of extinction. One shopkeeper does not consider the laws to be very important and thinks that there are endangered wild populations for which not much information is available, whereas populations of reptiles with a good population status are regulated. The most important negative impacts of the legislation on the sector are thought to be the administrative burden, the bureaucracy and the consequent death of many animals. Financial consequences were also mentioned, but to a lesser extent.

Suggestions for improving the implementation of the legislation included the distribution of more information to the stakeholders, the improvement of communication between the authorities and the traders, the active

involvement of the stakeholders in decision making, the improvement of efficiency of administrative procedures and the education of authorities about caring for animals (especially for Customs, where many animals die due to improper care).

*Results of surveys undertaken at events*
Fairs generally provide a good impression of the situation in the sector with regard to awareness, implementation and enforcement. The awareness of the organisation and the legal provisions of the relevant region can often be better understood by looking at the fair regulations. Mostly, these regulations cover general issues, such as requirements for exhibitors, safety measures, proper handling of live animals and compliance with legislation. Sometimes they go into more detail and specifically referring to conditions for exhibiting live animals, labelling of animals with the correct scientific name and conservation status and the presence of veterinary certificates and appropriate CITES permits.

Attending the fairs and talking to the organisation and the exhibitors gives a more detailed view of implementation and enforcement. In some cases, the organisation itself is very strict, controls its participants and excludes them in case the rules are broken. Inspection Services also regularly visit these kind of events, sometimes with full co-operation from the organisation and sometimes "undercover".. Further, it happens that animal welfare organisations attend to check the conditions for the animals. In case they are not satisfied, they can use the press to influence the opinion of the general public.

*Germany:* A general remark often made by traders in the Netherlands is that the fair regulations in Germany are very strict. Although the German law is not always fully understood, especially with regard to regional differences, these specific regulations are often appreciated. Traders who attend many fairs in Europe also implement the German rules in other countries (e.g. extent labels with scientific name and conservation status are re-used for other fairs). The "Interzoo" forms an example of appropriate inspection at fairs that include live animals. At the day before the beginning of the "Interzoo" in May 2002, two vets from local authorities (veterinary and environmental) checked the accommodation of live animals. In some cases, the organisation itself discovered too small aquaria. They hold large extra tanks for keeping surplus fished during the fair.

*Portugal:* None of the interviewed fair organisers showed to be aware of the CITES provisions and all of them claimed that products shown during fairs are not their entire responsibility. Nevertheless they co-operate with authorities in every possible way.

*Spain:* Some of the interviewed traders of exotic animals think that fairs are still of low quality in Spain. They showed more interest in taking part in events abroad. There seems to be a need for improvement of the Spanish fairs, e.g. by making the trade formalities and the appropriate control of the trade in specimens from CITES-listed species less burdensome. Although the market in Spain is smaller than in other countries, it aims at being competitive. Therefore, such improvements would be beneficial to the fair organisers, since the trade sectors that work with exotic species would be potential customers.

"SEPRONA" (the Nature Protection Service of the Spanish Civil Guard) sometimes carries out inspections at trade fairs. At relevant events, the "Barcelona Fair" provides a veterinarian stand for "SIZOO", which guarantees the appropriate conditions and legality of the animals present. Some fairs are not very accepted by the general public. E.g. the environmental group "Ecologistas en Acción Alicante" managed to have a sanction imposed to "Expoanimalia", a travelling animal exhibition with shows in Alicante, due to lack of appropriate documentation. The Town Council of Alicante now faces charges of breach of official duty.

*Channels for improving awareness*
There are several channels for improving awareness amongst the stakeholders in the live pet sector. Most important are probably the national commercial associations. They are generally prepared to co-operate with authorities and NGOs in order to better inform and assist their members. One option could be the free publication of articles or advertisements about CITES and the EU Wildlife Trade Regulations in their magazines or on their websites. Other, less concrete options, include maintenance of communication between the parties concerned, the formation of working groups and/or the organisation of meetings.

Fairs are also useful forums to reach out to the sector. Although it is somewhat more difficult to negotiate with the large commercial fairs for the professionals in the pet sectors as compared to less formal hobbyist fairs, it is still often possible to reach an agreement on the distribution of materials at such events, either for free, for exchange of favours or for discount prices. E.g. the "Madrid Fair" in Spain has shown interest in possible agreements by which the organisers would consider granting a space in the appropriate fairs for the distribution of educational materials. The organisers would, however, require that the other party verifies compliance with CITES for the exhibited goods, since the fair organisers do not carry out inspections themselves. Fair organisers in Portugal also showed interest in having the participation of a NGO or to help in the distribution of any kind of information, since it does not go against the objectives of the fair. "EXPONOR" (Oporto International Fair) agreed in having the presence of a NGO since that same organisation advertises their fair "Expozoo".

Other channels for distributing information are the independent magazines. Several editors have expressed interest in publishing articles and advertisements for free. E.g., "Korkeasaari", a Finnish magazine, published by the "Korkeasaari zoo" has shown to be prepared to provide a free publication (M. Ahjola, Korkeasaari, pers. comm. to P. Huuska, WWF Finland, 2002). "PETS International", published by "InterMedium Publishers b.v." in the Netherlands has already published an article written by TRAFFIC Europe and is interested to do so again in the future. Further, the director of "Zoocultura", a Portugese magazine published by one of the largest importers of animal products and live animals in the country, has shown interest to publish articles from NGO's. In other cases, editors are interested to exchange favours. For example, the Finnish magazine "Lemmikit ja eläinmaailma" is prepared to provide a free publication, but would like to receive some campaign products (posters etc.) in exchange (M. Kylmänen, Lemmikit ja eläinmaailma, pers. comm. to P. Huuska, WWF Finland, 2002). Through personal communication with the editors, it is often possible to make an agreement on free publications or discount prices.

## Birds

The bird sector has a very long history and is well established in all EU Member States. Especially parakeets and parrots are well known birds and it is very common to keep them as pets. As for the birds of prey, this is somewhat different. Although falconry has a very long history as well, it involves only small groups of people who often exchange and trade birds amongst themselves. Birds of prey cannot be obtained in just any pet store and require special care and attention.

### *Structure*

The structure of the bird sector is often very complex. In all Member States, there are huge numbers of local clubs of hobbyists that are sometimes organised in larger regional or national umbrella associations. Such national umbrella associations can also be member of other national structures or of international umbrella associations.

Birds of prey clubs and associations are generally less abundant. In some Member States, there are also local or regional clubs that are organised in one national umbrella association. In other Member States, there are only separate regional or national associations. There is some organisation on international level as well.

*International hobbyist associations*
There is one international bird umbrella association called "La Confédération Ornithologique Mondiale (COM)". It has members from 37 countries and forms a very official structure for bird clubs globally (COM, 2002). For birds of prey, the relevant international umbrella association is called "International Association for Falconry and Conservation of Birds of Prey (IAF)", which currently has 47 association members from 34 countries worldwide, with a total of 8,542 individual members (IAF, 2002). Although these two umbrella associations are very important in structuring the sectors, they seem to be less relevant for playing a role in an information campaign. The distance to the individual members and their needs and interests could limit the possibilities, also taking into account national differences and language barriers. Therefore, only the relevant national associations will be further discussed in this chapter.

*National hobbyist associations for birds*
As mentioned before, the structure of networks of associations differ between the Member States and can be very complex. The most important associations will be discussed below. Their objectives are often more or less similar and frequently cover issues such as defending the interests of bird hobbyists and breeders, promoting captive breeding, supporting ringing registration schemes, participating in and organising events (e.g. competitions and shows for exhibiting the most beautiful birds or the best singing birds), exchanging and distributing information, promoting ornithological studies, supporting the protection of birds in the wild and studying legislation on trade activities and animal welfare subjects.

*Austria:* In Austria, there is the national umbrella association the "Österreichischen Kanarienzüchter und Vogelliebhaber- Bund (ÖKB)". This organisation was established in 1929, currently has 48 member clubs with a total of 800 individuals members and is member to "COM International".

*Belgium:* In Belgium, there are several relevant national organisations, e.g. "Aviornis International", "Belgische Parkietenfederatie", "Belgische Vereniging Agaporniden", "Koninklijke Belgische Ornithologische Federatie" and "Koninklijke Ornithologische Bond van België". These five associations, together with 12 other associations, are united into one national umbrella association, which is called the "Belgische Ornithologische Unie (BOU)" and which also is "COM Belgium", member of "COM International". The 17 associations themselves either have individual members or local member clubs, but altogether they unite a total of around 200,000 individual members.

*Denmark:* The most relevant Danish umbrella association for birds is the "Landsorganisationen Danske Fugleforeninger". However, no more detailed information was obtained.

*Finland:* The Finnish Parrot Association is called "Suomen papukaijayhdistys ry", established in 1995 and with around 450 individual members.

*France:* There are four large associations in France. First of all, there is the "Union Ornithologique de France (UOF)", an umbrella association with 250 local club members and a total of 6,000 private members. "UOF" also forms "COM France", member of "COM International". The "Club des éleveurs amateurs d'oiseaux exotiques (CDE)" gathers 6,500 members, the "Fédération Française Ornitologique" has 2,700 members and then there is also the "Société Centrale d'Aviculture de France", which covers park and cage birds.

*Germany:* This country knows two important umbrella associations. The "Vereinigung für Artenschutz, Vogelhaltung und Vogelzucht (AZ) e.V." has 460 local member clubs with a total of 25,000 private members. The "Deutscher Kanarien- und Vogelzüchter Bund e.V." has 32 regional clubs as members, with a total of more than 20,000 private members, and is the German member of "COM International". Other associations that seem relevant are "Die Vereinigung der Ziergeflügel- und Exotenzüchter", the "Gesellschaft für Tropenornithologie" and the "Verband Deutscher Waldvogelpfleger und Vogelschützer e.V.", although no more information was obtained on their profiles.

*Italy:* The "Federazione Ornicoltori Italiani (FOI)" is an Italian umbrella association with 210 member associations and a total of 20,000 individual hobbyists. It also forms the Italian member of "COM International".

*The Netherlands:* Five associations together form the Dutch Member of "COM International": the "Algemene Nederlandse Bond van Vogelhouders", "Aviornis International Nederland", "Belangenbehartiging Europese Cultuurvogels", the "Nederlandse Bond van Vogelliefhebbers" and the "Parkietensociëteit". Two of them are umbrella associations. The "Algemene Nederlandse Bond van Vogelhouders" gathers 200 clubs and the "Nederlandse Bond van Vogelliefhebbers" gathers 622 local clubs with a total of 37,500 individual members.

*Portugal:* Two national umbrella associations exist, one in the north of Portugal, "Federação Ornitológica do Norte de Portugal (FONP)", and one in the south, "Federação Ornitológica do Sul e Ilhas (FOSIP)", the latter of which gathers local clubs with a total of 9,000 individual members. Both associations are member of "COM International".

*Spain:* Even though parrots are very popular live pets in Spain and the sector involves the highest volumes of CITES-listed species in the country, there are no umbrella hobbyist associations.

*Sweden:* The "Riksförbundet Svensk Fägelhobby" gathers 1,500 bird hobbyists.

*The UK:* In the UK, there are also many local and regional clubs. Further, the organisation on national level seems to have a complicated structure. Following are some selected umbrella associations and associations with relevant numbers of members. The "British Bird Council" was established in 1970 and gathers 15 local clubs, the "National Council for Aviculture" gathers 242 societies and groups that are affiliate members and the "Parrot Society UK" has 6,000 individual hobbyist members.

*National hobbyist associations for birds of prey*

Associations for birds of prey are far less numerous, although certain countries, such as the UK, apparently know a larger culture for falconry than other countries. Although the objectives of these associations can differ substantially with regard to wording and details, they generally cover issues such as promoting the hunt with birds of prey within the context of sustainable use of wildlife, maintaining the cultural and historical heritage associated with falconry, preventing damage to the welfare of birds of prey kept in captivity, encouraging captive breeding and re-introduction programmes, studying birds of prey and supporting their conservation in the wild, working in accordance with legislation for capturing, transporting, trading and keeping the birds as well as for hunting and nature conservation.

*Austria:* The "Österreichischer Falknerbund" was established in 1950 and currently consists of nine regional groups. It is member of "IFA".

*Belgium:* In Belgium, there is the "Belgische Vereniging der Vlaamse Valkeniers en Havikeniers". This association is member of "IFA" and "IUCN".

*Denmark:* The "Dansk Falkejagt Klub" was established in 1993 and currently has 32 members (falconers and breeders). It is also member of "IFA".

*Germany:* The "Deutscher Falkenorden" is one German association that involves birds of prey. It is member to "IFA", but no other profile information could be obtained. The "Greifvogelzuchtverband Deutschland e.V." was established in 1999 and appears to be a smaller association.

*The Netherlands:* The "Nederlandse Valkeniersverbond Adriaan Mollen" accepts "future" members that need to go through three years of education before they are accepted as full members. This association is also member to the "IFA".

*Spain:* Currently, falconry is taking on a new dimension and is showing signs of continuity. The practice has increased over recent years, as reported by the "Asociación Española de Cetrería y Conservación de Aves Rapaces (AECCA)". This organisation was formed in 2001 as a consequence of the merging of the "Asociación Española de Cetrería (AEC)" and the "Unión Europea para la Defensa de la Cetrería y las Aves de Presa (UEDECA)". There are 300 members who are mainly falconers (50%) and breeders of raptors (40%), although there are also ornithology passionates (10%). There are more than 40 small regional falconry associations and the "AECCA" is in touch with all of them.

*The UK:* There are three associations member to "IFA": the "British Falconers Club" that was established in 1927 and that has around 1,000 members, the "Welsh Hawking Club" that was established in 1962 and that has 350 members and the "Scottish Hawking Club". Other British associations for birds of prey include e.g. the "British Hawking Association", the "Central Falconry and Raptor Club", the "Hawk Board" and the "Raptor Breeders Association".

***Events***

Bird events are very numerous and vary from small local fairs, shows or competitions to large national or even international happenings. They are mostly organised by associations. Bird fairs organised by commercial businesses seem to be rather rare.

Events targeting birds of prey have quite a different character. There are barely any trade fairs as exist for the other birds. Activities rather include falconry shows and open houses at breeding facilities.

*Austria:* There are two important events for birds in this country, both organised by the "Österreichischen Kanarienzüchter und Vogelliebhaber- Bund (ÖKB)". The first one is the bird fair "ÖKB Vogelbörse" (13 October 2002 in Wels) and the second one is the bird show or contest "ÖKB Bundesmeisterschaft" (13 to 15 December 2002 in Zeltweg).

*Belgium:* Three major events could be identified for Belgium. The "Belgische Vereniging van Parkieten en papegaaien liefhebbers" organises the "BVP Fair" three times a year and the "BVP Show" annually, both in Winksele-Delle. The "Belgische Vereniging Agaporniden" organises the "Lovebird International" annually in Bambrugge. There are many other local and regional fairs and shows in the country.

*Denmark:* Two fairs have been identified for Denmark: the "Fuglemarked" in Helsingør organised by the "Helsingør Fuglevenner" and the "Stort fuglemarked" in Roskilde organised by the "Roskilde og Omegns Fugleforening".

*France:* A hundred bird exhibitions, halls and shows take place in France every year (J. Faivre, Legal Officer for the Union Ornithologique de France, pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002). These events are mostly organised by local and regional ornithology clubs and associations. Even though selling living

animals is often not the primary interest of these events (except for halls), visitors can often buy living specimens.

*Germany:* The "Vereinigung für Artenschutz, Vogelhaltung und Vogelzucht (AZ) e.V" organises two events, namely the "AZ Bundesschau" (23 to 24 November 2002 in Kassel) and the "AZ Europe Championat" (9 to 11 August 2002 in Karlsruhe). The "Gesellschaft für Tropenornithologie" organises a "Tagung über topische Vögel" (5 to 8 September 2002 in Krefeld). More fairs, shows and conferences organised by other national, regional or local associations exist.

*Italy:* The "Federazione Ornicoltori Italiani (FOI)" and its member associations promote hundreds of events (exhibition of birds) each year. Only from September to December 2002, 120 exhibitions are planned. There is one national annual exhibition of particular interest organised in March/April generally. In Italy, in any weekend, there are many fairs where these animals are sold legally and illegally. In July 2002, during a fair in Naples, the police seized about 400 birds (*Carduelis* spp., *Chloris* spp., *Turdus* spp. etc.) that had been offered illegally. A very important fair in Italy is the annual "Fiera degli uccelli di Sacile" (18 August 2002 in Sacile). Previous editions of this event attracted 25,000 to 30,000 visitors in one day. There are generally hundreds of exhibitors and it is possible to see any type of bird for sale.

*The Netherlands:* Also in this country, several events are organised by the main hobbyist associations. The "Algemene Nederlandse Bond van Vogelhouders" organises the annual "De Kampioen" in Zutphen, which is a competition for bird breeders. The "Parkieten Sociëteit" and its regional departments are responsible for events such as the "Grote Vogelbeurs" (21 November 2002 in Doetinchem) and the "Internationale Vogelbeurs" (6 October 2002 in Saasveld).

*Portugal:* "AVISAN" is an annual fair held in Santarém, entirely dedicated to birds. In the last edition, there were 50 exhibitors, 25 of which were professionals of the live pet industry and 25 of which were hobbyist associations and hobbyists themselves. In 2002, 25,000 people visited "AVISAN", the maximum since this fair was first organised seven years ago. Exhibitors have to follow general rules and regulations of the organisation "CNEMA" (National Center of Expositions and Agricultural Markets, S.A.), a veterinary is always present and there is active surveillance throughout the fair. The organisation has no data on commercial trade during "AVISAN", but presumes that nearly all species sold by participants are captive bred.

*Spain:* There seem to be no specialised fairs on birds in this country. However, the birds of prey organisation "Asociación Española de Cetrería y Conservación de Aves Rapaces" does organise falconry events and conferences.

*Sweden:* The hobbyist organisations arrange fairs regularly, often annually. The most important event for birds is organised by the "Riksförbundet Svensk Fägelhobby".

### *Magazines*

The most important magazines, both for parrot-like birds and birds of prey, are the associations' magazines. These reach a very large public involved in the bird hobby. They generally include articles about the breeding and keeping of birds, but also about conservation and legislation, mostly written by members. Further, there are announcements, advertisements and calendars of events.

There are not so many magazines, specifically on birds, published by independent publishers. Most of such magazines were identified in Germany. They seem to be less relevant than the associations' magazines, probably targeting more consumers than breeders and traders.

Finally, there are, of course, also many websites on birds, some of which belong to an association or a business, others of which are maintained by individual hobbyists.

*Austria:* There are two publications of interest in this country. The "Österreichischen Kanarienzüchter und Vogelliebhaber- Bund (ÖKB)" publishes the "Zeitung" and, for birds of prey, the "Österreichischer Falknerbund" publishes "Der Falkenblick".

*Belgium:* As there are many relevant national bird associations in Belgium, there are also many relevant magazines. "Aviornis International" has a bi-monthly magazine (in Dutch, English and Spanish), the "Belgische Parkietenfederatie" has its own publication, the "Belgische Vereniging Agaporniden" publishes the "BVA" bi-monthly, the "Koninklijke Belgische Ornithologische Federatie" publishes "De Witte Spreeuw" monthly, the "Koninklijke Ornithologische Bond van België" publishes the "Vogelwereld" monthly and the "Belgische Vereniging van Parkieten en papegaaien liefhebbers" publishes the "Parkieten-Revue" monthly.

*Denmark:* The "Landsorganisationen Danske Fugleforeninger" publishes a bi-monthly magazine called "Dansk Fuglehold", which reaches members of a large number of local groups of parrot breeders and collectors. Further, hobbysists often obtain and exchange information from specialised and mostly non-commercial websites (e.g. "Parrotdata").

*Finland:* The Finnish Parrot Association "Suomen papukaijayhdistys ry" publishes a quarterly magazine "Siipipeili".

*Germany:* The "Vereinigung für Artenschutz, Vogelhaltung und Vogelzucht (AZ) e.V." publishes a monthly magazine called "AZ Nachrichten", the "Vereinigung der Ziergeflügel- und Exotenzüchter" publishes the monthly "Zeitschrift VZE" and the birds of prey association "Deutscher Falkenorden" publishes the magazine "Tinnunculus". In addition to these associations' magazines, Germany knows many independent publishers that also produce magazines exclusively on birds, such as the monthly "Vogelfreund" and "Gefiederte Welt", the bi-monthly "Papageien" "WP Magazin" and the biannually "Papageienkunde" (which is also available in English).

*Italy:* The "Federazione Ornicoltori Italiani (FOI)" has a monthly magazine called "Italia Ornitologica", which is not only sent to members of the association, but also to people that have subscribed. For many collectors, the most important magazine in Italy for parrots is "Psittascene", the magazine of the "World Parrot Trust".. In addition, there are many relevant websites where it is possible to offer and buy birds and related equipments and/or to ask questions, speak with specialised people and veterinarians. Probably the most important discussion list is "list-pappagallo@yahoogroups.com", which has around 300 subscribers. Websites that provide the possibility for offering and buying include "http://www.tropicalworld.it", "http://www.pappagalli.com", "http://www.parrots-area.com" and "http://www.planetparrots.it".

*The Netherlands:* Most of the bird associations have their own magazines, e.g. the "Algemene Nederlandse Bond van Vogelhouders (ANBV)" publishes the monthly magazine "Vogelvreugd", the "Nederlandse Bond van Vogelliefhebbers (NBvV)" has the monthly magazine "Onze Vogels" and the "Parkietensociëteit" has the monthly magazine "Parkietensociëteit".

*Portugal:* "Ornitófila" is a magazine published three times a year by the "Associação dos Avicultores de Portugal (AAP)".. The magazine is distributed freely to all of its associates (about 800 from the entire country) and it is not sold in stores. It contains articles regarding the care of captive birds, exotic species biology, organisation and structure of national and international associations and classified advertisements related to captive birds. Associates write all the articles.
*Spain:* "Pajaros" is the ornithological magazine of the "FOCDE group" (Federación Ornitológica Cultural Deportivo Española - Spanish cultural and sports ornithological federation) and features a lot of publicity for breeders, specialised shops and aviaries, as well as for all kinds of products related to ornithology, such as food and cages. There are also short articles and news items about different groups of birds, especially canaries, and informational columns about events and awards.

"La Alcándara" is a newsletter published twice a year by "AECCA" (Asociación Española de Cetrería y Conservación de Aves Rapaces - Spanish association of falconry and conservation of birds of prey). It features a series of short news articles on falconry and a large part of the newsletter is devoted to different practical questions and answers or assistance from people with experience in the field. There are advertisements for

specialised centres and announcements for falconry events, meetings and seminars. The "AECCA Annuary" is an annual publication. Most of it features articles for non-specialists about the subject at the international level. It deals with the practice of falconry, developments and uses of this discipline. Some articles focus on the care of certain species.

*Sweden:* The "Riksförbundet Svensk Fägelhobby" publishes the monthly magazine "Fägelhobby".

*The UK:* The "Parrot Society UK" has its own magazine, as well as many of the other associations. Additionally, there are some independent publishers that produce magazines specifically on birds, e.g. "Bird Keeper" and "Cage and Aviary Birds". Of course, there are also several relevant websites, one of which is called "Feathered Flyer" that provides a lot of information and the possibility to buy or sell birds.

*Awareness*

The awareness specifically for the bird hobbyist sector can be best reflected by the awareness of the main bird hobbyist associations, as they play the most prominent role with regard to assembling and educating the hobbyists, organising events and editing magazines. Information on the awareness of bird shops is included in the chapter "Live Pet Industry General" (under the paragraph "Awareness – Pet Shops")

*National hobbyist associations*

*Belgium:* The "Belgische Ornithologische Unie (BOU)" (or "COM Belgium") is the most important bird hobbyist umbrella association in the country, formed by 17 associations with a total of around 200,000 individual members. One person, responsible for legislation, was interviewed for the purpose of this project. Mr. van Limbergen keeps track of all the legislative developments on national and EU level through the national "courant" and the internet, while he obtains lists of species from the Management Authority (G. van Limbergen, BOU, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002). He forwards useful information to the members as often as necessary and he feels like the knowledge of the organisation as well as of the relevant members with regard to CITES and the EU Regulations is sufficient. However, no information is sent automatically by the government at all and the designation of a spokesperson who can answer questions would be more than welcome (G. van Limbergen, BOU, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002).

The organisation is aware of article 9(4) in the EU Regulations (338/97) that requests that "the holder of a live specimen of a Annex B species ensures that the recipient of the specimen is adequately informed of the accommodation, equipment and practices required to ensure the specimen will be properly cared for".. However, there seems to be a need for clarification. Should there be an agreement in writing, double and signed to prove that sufficient information has been provided to the customer? Can the person who sells or gives the specimen be held responsible for what happens to it afterwards? Can someone ask for a monetary compensation in case something happens to the specimen? These are questions that have been regular subjects for discussions and for which no answer can be found (G. van Limbergen, BOU, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002). The organisation thinks that CITES and the EU Regulations are very important. However, less strict measures for birds with closed rings could be expanded for other birds. E.g. owls can be easily bred in captivity and, consequently, the Management Authority is loaded with requests for registration that could easily be avoided (G. van Limbergen, BOU, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002).

*Finland:* "Suomen papukaijayhdistys ry" (the Finnish Parrot Society) is well aware of CITES and the EU Regulations. However, there is a need for more information about the certificates concerning parrots born in captivity, as retailers may claim that certificates are not needed for these birds.. Further, more information on the transport of parrots to Finland is needed and the lists of species protected under the EU Regulations are difficult to find on the internet (M. Takala, President, Suomen papukaijayhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002). The association obtains information on the legislation through the internet and distributes it to the members through its publication and via discussions. Caretaking info regarding parrots is regularly forwarded to the members. In some cases, the import of parrots from abroad is difficult, often due to tight rules by the Ministry of Agriculture and Forestry (M. Takala, President, Suomen papukaijayhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

*France:* The two largest bird associations were interviewed: the "Union Ornithologique de France (UOF)" and the "Club des éleveurs amateurs d'oiseaux exotiques (CDE)".. Both association have a good understanding of CITES and the EU Regulations and obtain their information from the European Commission, the Management Authority and the national official publications. Information is distributed through the associations' magazines and the "UOF" also uses local and regional workshops to inform the hobbyists (J. Faivre, UOF, and D. Leportois, CDE, pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002). Mr. Faivre from the "UOF" thinks that CITES could be more effective with a lower level of administrative burden (pers. comm. to A. Affre, TRAFFIC Europe – France, June 2002).

*Germany:* The "Vereinigung für Artenschutz, Vogelhaltung und Vogelzucht (AZ) e.V." thinks that the majority of their members should have sufficient knowledge of CITES and the EU Regulations, although some parts of the legislation are difficult to understand due to the bureaucratic language (Mrs. Übele, AZ, *in litt.* to J. Roos, TRAFFIC Europe, June 2002). This association obtains information through the internet, through the Management Authority and through participation in relevant information events, such as presentations and seminars. Information, including legal texts, is distributed among the members through the association's magazine. The legislation is regarded as partly important for the conservation of species and the support of sustainable use of wildlife and is very often experienced as more bureaucracy than really useful or effective as compared to e.g. habitat conservation (Mrs. Übele, AZ, *in litt.* to J. Roos, TRAFFIC Europe, June 2002).

*The Netherlands:* Two relevant bird associations were interviewed in this country: the "Nederlandse Bond van Vogelliefhebbers (NBvV)" and the "Parkieten Sociëteit".. Their answers were generally quite similar. Both organisations have a good understanding of CITES and the EU Regulations and obtain information through the Management Authority, the legal texts ("Staatscourant"), the internet and/or the European Commission. However, there are some problems regarding the exact interpretation of the laws. Information often comes quite late and it is then expected that the hobbyists immediately act upon it. There is a need for clearer information, education or even simplification of the laws themselves (H. Marinus, President of the NBvV, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002 and F. Rönitz, Vice-President of the Parkieten Sociëteit, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002). Both associations also think that the administrative burden is very high and that the effect of the legislation on the conservation of species is quite low due to other factors affecting birds habitats. As for suggestions to improve implementation, the "NBvV" thinks that the inspection officers generally do not show so much understanding or tact and that this could be changed (H. Marinus, President of the NBvV, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002). The "Parkieten Sociëteit" suggests that there should be better and more timely information provided. Further, it would be useful if explanation could focus on the possibilities on trade and give a clarification of the activities that are allowed, instead of focusing on what is not allowed (F. Rönitz, Vice-President of the Parkieten Sociëteit, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002).

*Portugal:* The President of the "Federação Ornitológica do Sul e Ilhas (FOSIP)" claims that the federation and its associates are aware of the CITES provisions, but do not have information on EU Regulations. Information is obtained through the Management Authority and, whenever new legislation or changes to existing laws are published, these are forwarded to their associates (M. Martins, President, FOSIP, pers. comm. to R. Braz, LPN, July 2002). The President of the "Associação dos Avicultores de Portugal", a member of "FOSIP", stated to be aware of the CITES provisions, but that these have no importance amongst captive bird breeders, because their purpose is not to import birds from abroad (M. Fariam, President, AAP, pers. comm. to R. Braz, LPN, July 2002).

*Spain:* The "Asociación Española de Cetrería y Conservación de Aves Rapaces (AECCA)", which is the Spanish association of falconry and conservation of birds of prey, and its members try to stay up-to-date with CITES and the EU Regulations, but they are not always informed about the latest changes. The association obtains information from the CITES website and the CITES Secretariat, but only forwards information in case members have questions (E. Razola, Legal Advisor for AECCA, pers. comm. to Á.. Iglesias, June 2002). Generally, the knowledge of the legislation in the sector is medium to high, mainly caused by the long-time persecution of falconers, which forces them to defend themselves. Although the legislation is considered to be very important, the most relevant impact is thought to be the overlap with the EU Regulations and the different levels of enforcement of national and sub-national rules. This implies a duplication of formalities and, therefore, a higher

administrative burden (E. Razola, Legal Advisor for AECCA, pers. comm. to Á. Iglesias, June 2002). The association's suggestions for improvement of implementation include more and better information, especially complete lists of species in the Appendices with both scientific and common names. Further, permits should be issued at the time of a bird's birth, instead of three to ten months later, to avoid the situation where bird keepers are exposed to sanctions for a long time. Additionally, an improved coordination between the different authorities would increase efficiency. The association itself launches campaigns against illegal capture of raptors and would even expel members taking part in this kind of activity (E. Razola, Legal Advisor for AECCA, pers. comm. to Á. Iglesias, June 2002).

*The UK:* "National Birds of Prey Centre" is not really an association, but a specialist zoological collection open to the public. The owner is well aware of CITES and the EU Regulations and deals with this legislation since the early 70's. Relevant information is obtained from the internet and through the Management Authority. However, the overall awareness in the sector is estimated not to be high (J. Parry-Jones, Director of the NBPC, *in litt.* to H. Corrigan, August 2002). The impacts of the laws on the sector involve huge burdens of paperwork and sometimes financial costs. Although the legislation is regarded as being important, the owner of this centre has some remarks. Before changing a species status or the annexes (like in 1997), the traders should have been asked what effects they thought this would have had on the wild populations. The owner would have strongly recommended that eagles and vultures stayed on Annex C and were not put on Annex B. These species are being exploited heavily and now it is not clear what is happening. Communication is very important and not all traders and hobbyists want unlimited trade (J. Parry-Jones, Director of the NBPC, *in litt.* to H. Corrigan, August 2002).

*Channels for improving awareness*

There are several channels for improving awareness amongst the hobbyists in the bird sector. Most important are probably the national hobbyist associations. They are generally prepared to co-operate with authorities and NGOs in order to better inform and assist their members. One option could be the free publication of articles or advertisements about CITES and the EU Regulations in their magazines or on their websites. However, such articles need to address the major questions by the hobbyists and professionals and not only cover a general outline of the legislation, but also more detailed information on specific issues. Other, less concrete options include maintenance of communication between the parties concerned, the formation of working groups and/or the organisation of meetings.

Fairs are also useful forums to reach out to the sector. Most of the hobbyist bird fairs are organised by associations, which always has its own stand for personal contact with the visitors, for distributing flyers, for selling publications and for obtaining new members. There may be possibilities to include information and materials on CITES and the EU Regulations at the associations' stand or else the associations often provide a free stand for NGOs and educational purposes. As the events targeting birds of prey have quite a different character and mainly concern falconry shows and open houses at breeding facilities, and as the public to such events for a large part consists of viewing visitors, there does not seem to be much use in attending for the purpose of distributing information materials.

Other channels for distributing information are the independent magazines, although ones targeting birds specifically are quite rare and it is more likely that the inclusion of an article or an advertisement has a price. Still, these magazines could also form a channel to reach out to a certain kind of public and the options need to be considered. There are, of course, also many websites on birds, some of which belong to an association or a business, others of which are maintained by individual hobbyists. Although placing an article on such websites can reach a large public, care should be taken by choosing the locations.

## Reptiles and Amphibians

The live pet sector involving reptiles and amphibians is quite different from that involving birds. The keeping of reptiles and amphibians often finds resistance from the general public and NGOs and many discussions are taking place on nature conservation and animal welfare aspects. Although many animals are still taken from the wild, the knowledge on the care and breeding of the species is rapidly expanding and more and more captive bred animals are now available on the market. Also the amount of information for consumers has increased significantly, while the quality of products has improved and better adjusted to the characteristics and requirements of the various species.

### *Structure*

As the hobbyist sector for birds knows an extent organisation and hierarchy, from small local clubs to large national and international umbrella associations, this is not so much the case for reptiles and amphibians. Although the keeping of these animals also has quite a long history, it has only developed to a more large-scale level in the last decades. Therefore, the structure is less complex and often involves different independent regional and national associations and relatively few national and international umbrella associations. It is obvious that the sector is still developing and expanding, as e.g. new associations have been established in different EU Member States in the last decade.

*International hobbyist associations*

One international umbrella association could be identified, namely the "European Aquaristic and Terraristic Association (EATA)". This association has seven national member (umbrella) associations with a total of 57,000 individual members in six countries (Austria, Belgium, the Czech Republic, France, Germany and Luxembourg). However, no further information could be obtained on the "EATA" and it is not clear what role is played in structuring the relevant sectors. Although its member associations in the Czech Republic and Luxembourg could not be identified, it seems like the focus of the member associations in the other countries generally is more directed to the aquarium industry than to reptiles and amphibians. Therefore, these will further be discussed in the following chapter "Aquarium Industry".

*National hobbyist associations*

The objectives of reptile and/or amphibian associations are often more or less similar and mainly include issues such as promoting knowledge of herpetology, distributing information to members, encouraging proper care for the animals in captivity, promoting captive breeding, supporting scientific research, engaging in the protection of species in their natural habitat and seeking to gain public understanding and support.

*Austria:* In Austria, the "Österreichische Gesellschaft für Herpetologie (ÖGH)" seems to be the most important herpetological association. It was founded in 1984 and currently has 350 members that are hobbyists and scientists from 22 countries. Most members come from Austria (236), Germany (46) and Switzerland (11) (A. Hassl, Secretary, ÖGH, *in litt.* to J. Roos, TRAFFIC Europe, June 2002). Other Austrian associations of interest are the "Herpetologische Terraristische Vereinigung Österreich" and the "Schildkrötenfreunde Österreich".

*Belgium:* The largest hobbyist association in this country is the "Belgische Vereniging voor Terrariumkunde en Herpetologie (TERRA)". It was founded in 1963 and it is a member of the "Nationale Raad voor Dierenliefhebbers (NRvDL)", which is a national board for animal hobbyists. "TERRA" currently has 340 members, of which 40 are foreigners, mainly from the Netherlands (30). Around 15% of all (2,000) herpetologists in Belgium is a member to this association (H. Claessen, TERRA, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002). Other Belgian associations are the "Belgian Ophidian Association" and "Anolis Oostvlaamse Terrariumvereniging".

*Denmark:* The largest hobbyist association is the "Nordisk Herpetologisk Forening", which was founded in 1944 and currently has 1,000 members. Another relevant association is "Kamæleonen", specifically focusing on chameleons. Further, there is "Exotiske Insekter", which does not focus on amphibians and reptiles, but rather on exotic insects. It was founded in 1997 and has 275 members.

*Finland:* "Suomen herpetologinen yhdistys ry" was founded in 1992 and has 1,000 members. Most members are private hobbyists (90 %), but there are also some businessmen, animal retailers, zoos, permanent exhibitions, researchers and research institutes. Most members come from Finland (99 %), while some come from Estonia, the UK and Japan (J. Saarikivi, President, Suomen herpetologinen yhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

*France:* The "Association Française de Terrariophilie (AFT)" and the "Société Herpétologique de France (SHF)" are the two largest associations for reptiles and amphibians in this country.

*Germany:* Definitely the largest herpetologist association in the EU (possibly even in the world) is the "Deutsche Gesellschaft für Herpetologie und Terrarienkunde e.V. (DGHT)".. It was established in 1964 and currently has 8,100 members that come from Germany (91%), Switzerland (3%), Austria (2%), The Netherlands (1%) and other countries (<0,5% per country) (A. Mendt, DGHT, *in litt.* to J. Roos, TRAFFIC Europe, June 2002). The "DGHT' is a member of the "Bundesverband für fachgerechten Natur- und Artenschutz e.V. (BNA)", a nature conservation association, and has a lot of knowledge and expertise concerning herpetology among its board and members. Other German associations include "Amazonas – Löns", "Wasserstern" (founded in 1904, with a local scope and 200 members) and "Schildkrötenfreunde Horst 95" (founded in 1995, with a local scope).

*Greece:* In Greece, there is one association concerning reptiles, but it targets conservation activities rather than hobbyist issues. It is called "ARCHELON - Sea Turtle Protection Society of Greece", founded in 1983 and currently having 5,000 members (50% of which live abroad). "ARCHELON" is partner to "UNEP/MAP", a member of the "European Environmental Bureau (EEB)" and the "European Union of Coastal Conservation (EUCC)".

*Ireland:* The main herpetological association seems to be the "Herpetological Society Of Ireland". However, no more information could be obtained.

*Italy:* The "Associazione Padoana Acquariologica ed Erpetologica (APAE)" is the only large Italian association for amphibian and reptile hobbyists. It has some hundreds of members.

*Luxembourg:* The main herpetological association seems to be the "Terrarienfrenn Letzebuerg ASBL". However, no more information could be obtained.

*The Netherlands:* There are six relevant associations in this country. The largest is "Lacerta", with 1,800 members (150 of which are living abroad). "Lacerta" is a member of "SATO" (a co-operative initiative between the aquaria and terraria associations) and the "Nederlands Platvorm Verantwoord Huisdierenbezit (NPVH)" (Platform for the responsible keeping of animals). The "Tilburgse Terrarium Vereniging" was founded in 1983 and is a local herpetological association. "Dendrobatidae Nederland" only focuses on poison frogs. It was established in 1989, has 600 members and is also a member of "SATO" and "NPVH". The "Europan Snake Society" was established in 1980 and has 400 members mainly include hobbyists (95%), but also some pet shops and scientists. The "Nederlandse Schildpadden Vereniging" (or the "Dutch Turtle & Tortoise Society") was founded in 1975 and has 850 members that are private keepers (96%), colleague societies (3%) and zoos (1%). It is a member of "SATO" and "NPVH" and co-operates with the "European Studbook Foundation (ESF)" for breeding programmes of tortoise and turtle species. The sixth association in the Netherlands, "Kameleon Vereniging Nederland", has only been established in 2002 and specifically targets the keepers and breeders of chameleons.

*Sweden:* In Sweden, there are five relevant associations: the "Sveriges Herpetologiska Riksförening", the "Tropikföreningen ALBA", the "Tropikföreningen Amazonas", the "Svenska Dendrobatid Sällskapet" (specifically focusing on amphibians, founded in 1991 and currently having 90 members) and the "Svenska Arthropodföreningen" (specifically focusing on insects).

*The UK:* The are many associations for reptiles and amphibians in this country. Some of them focus on reptiles and amphibians in general (occasionally also including insects), such as the "Amphibian, Reptile & Insect Association", the "British Herpetological Society", the "British Reptile & Amphibian Society", the "Federation

of British Herpetologists", the "International Herpetological Society" and the "Reptiles & Amphibian Society".. Some of them focus on specific animal groups, such as the "British Dendrobatid Group", the "British Association of Tortoise Keepers", the "British Chelonia Group" and the "Tortoise Trust".. And some of them have a regional rather than a national scope, such as the "Reptile and Amphibian Society of North Ireland" and the "Scottish Herpetological Society".

*Events*

Reptile and amphibian events are less numerous than bird events and generally they are held on a national or regional level rather than on a local level. Additionally, there are also many fairs organised by commercial businesses. Germany seems to be the country with most reptile and amphibian events that cover many regions and cities.

*Austria:* The "Exotica" in St. Pölten (Vienna), which takes place quarterly, is the most important reptile and amphibian fair in Austria. It generally attracts between 2,000 and 4,000 visitors and, although it is smaller than the fairs in Germany, it is certainly of great interest for the Austrian herpetology sector. There is a very comprehensive website and a newsletter to which visitors can subscribe.

*Belgium:* There are two fairs of interest for this sector in Belgium. The "TERRA Beurs" is an annual fair organised by the "Belgische Vereniging voor Terrariumkunde en Herpetologie" (8 September 2002 in Antwerpen Berchem). "BOA" is an annual fair organised by the "Belgian Ophidian Association" (22 September in Opwijk).

*Denmark:* Some annual exhibitions take place every year. Three relevant fairs have been identified. "Pilegårdens Dyremesse" is an annual fair with around 20 exhibitors and several hundreds of visitors (4 May 2002 in Brønshøj). "Reptil og Terrariemesse" is also an annual fair with several hundreds of visitors (14 September 2002 in Rødovre). Finally, "Reptilmessen" is an annual fair that attracted 1,700 visitors in 2001 (7 September 2002 in Køge).

*France:* There are several larger and smaller fairs in this country. Three of them are organised by "ARAGUAIA les NAC" (groupe d'étude de terrariologie des amphibiens, des mygales, des reptiles et des insectes), namely the "Exposition Reptiles" (28 to 29 September 2002 in Besançon), the "Exposition Reptiles, Insectes et Mygales" (28 to 30 June 2002 in Ornans) and the "Exposition Reptiles et Mygales" (25 to 26 May 2002 in Dole), the last of which is organised in co-operation with the "Ladies Circle". Further, there is the "Salon du Terrariophile" (12 to 13 October 2002 in Toulon), organised by the "Association herpétologique du Var".

*Germany:* There are many herpetologist events in this country. The most important fairs for reptile and amphibians are the "Terraristika Hamm" and the "Reptil and Teich", both of which are organised by commercial businesses. The "Terraristika Hamm" (14 September 2002 in Hamm) is considered to be the largest biannual reptile fair in Europe. Several NGOs have exhibitions and there are thousands of visitors. The "Reptil and Teich" is an annual fair (6 to 7 April 2002 in Duisburg-Nord). The organiser also arranges a fair and a championship for ornamental fish.

In addition to these two fairs, there is the new "Terraristik Total" (7 September 2002 in Munster), which has been set up by a former partner of the organiser of the "Terraristika Hamm" and which seems to have potential to become one of the largest fairs of Germany as well. Following is a selection of other fairs that exist for this sector in Germany: the "Rüsselsheimer Froschbörse" (23 to 24 March 2002), the "Fürstenfeldbrucker Terrarienbörse" (3 November 2002), the "Hamburger Reptilien-Amphibien Tauschbörse"(20 October 2002), the "Leverkusener Terraristikbörse" (28 September 2002), the "Reptilienbörse Frankfurt" (16 November 2002), the "Reptilienbörse Gieben" (8 December 2002), the "Reptilienbörse Koblenz" (3 November 2002), the "Reptilienbörse Limburg/Lahn" (1 September 2002), the "Reptilienbörse Offenbach" (6 October 2002), the "Terra Exotica" (14 April 2002), the "Terrarienbörse Hannover" (23 March 2002), and the "Terraristik Forum Rheine" (25 August 2002). Most of these fairs take place at least annually, but more often two to three times a year.

*Italy:* The most important fair for reptiles and amphibians in Italy seems to be the "Reptilia Day" (25 to 27 October 2002 in Milano and Rome), which is organised by "Reptilia" (a magazine that is available in several countries and languages). It occurs several times a year and there are around 40 exhibitors and 4,000 visitors. Other important fairs include the "Reptiles day" (6 to 7 July 2002 in Longarone, Belluno) and the "Entomodena" (11 to 12 May 2002 in Modena). The "Entomodena" is organised several times a year by hobbyist organisations and is the most important fair for butterflies and bugs in Italy. It attracts around 50 exhibitors and many thousands of visitors. Generally, the people who work in this sector also travel to other European countries (such as Germany) to attend better quality fairs.

*The Netherlands:* Fairs organised by hobbyist associations include the biannual "Internationale Kikkerdag" (20 April 2002 in Haarlem) organised by "Dendrobatidae Nederland", the annual "Tilburgse Terrarium Dagen" (24 to 25 August 2002 in Tilburg) organised by the "Tilburgse Terrarium Vereniging" and the annual "Snake Day" (5 October 2002 in Houten) organised by the "European Snake Society".. Further, there are also some individuals who arrange these kinds of events and those are certainly not less important. The "TER Beurs" is organised approximately four times a year in two different cities (20 October 2002 in Amstelveen and 1 December 2002 in Houten). Then there is the biannual "International Reptile and Amphibian Fair" (17 November 2002 in Nijmegen) and the biannual "Terratotal" (6 October 2002 in Den Bosch).

*Sweden:* The hobbyist organisations arrange fairs regularly, mostly annually. The most important fairs for reptiles include the annual "Expo-syd" (autumn 2003), organised by "Tropikföreningen Amazonas", and the "Reptilsymposium" (8 to 9 November 2003 in Norrköping), organised by "Tropikföreningen ALBA".

***Magazines***

As for birds, the most important magazines are the associations' magazines. These reach a very large public and generally include articles about breeding and keeping, but also about conservation and legislation, mostly written by members. Further, there are announcements, advertisements and calendars of events.

There are also some magazines, specifically on reptiles and amphibians, published by independent publishers, as well as many websites, some of which belong to an association or a business, others of which are maintained by individual hobbyists.

*Austria:* The "Österreichische Gesellschaft für Herpetologie" publishes the "Herpetozoa" quarterly in German and English, the "Herpetologische Terraristische Vereinigung Österreich" publishes the "HTVÖ-Journals" biannually and the "Schildkrötenfreunde Österreich" publishes the "EMYS" bi-monthly.

*Belgium:* The "Belgische Vereniging voor Terrariumkunde en Herpetologie" publishes the "TERRA Magazine" bi-monthly and the "Belgian Ophidian Association" also has its own publication.

*Denmark:* The bi-monthly magazine of the "Nordisk Herpetologisk Forening" is distributed to the more than 1,000 members. "Kamæleonen" has a quarterly publication. Further, hobbysists often obtain and exchange information from specialised and mostly non-commercial websites (e.g "Altomkrybdyr" or "Slangegruppen").

*Finland:* "Herpetologinen yhdistys ry" publishes a magazine called "Herpetomania", which comes out bi-monthly. The magazine aims at informing herpetologic hobbyists and CITES related issues are treated on regular basis.

*Germany:* The "Deutsche Gesellschaft für Herpetologie und Terrarienkunde e.V." has several magazines, namely "Salamandra", "Elaphe", "Radiata", "Iguana" and "Die Eidechse", mostly published quarterly in German and English. There is one bi-monthly commercial magazine "Reptilia", which is also available in other countries and other languages .

*Italy:* As in Germany, the "bi-monthly commercial magazine "Reptilia" is a very important publication for this sector. Additionally, there are many relevant websites where it is possible to offer and buy animals and related equipments and/or to ask questions, speak with specialised people and veterinarians. Probably the most

important ones that provide the possibility for offering and buying are "http://www.rettili.net", "http://www.rettili.org", "http://www.zooproject.com", "http://www.petz.it", "http://www.acabsardegna.it", "http://www.rettilariomediterraneo.it", "http://www.zoomaniarettili.com", "http://www.aaesotici@yahoo.com", "http://www.rettilinea.com" and "http://www.hobbyzoo.it",

*The Netherlands:* The hobbyist associations "Dendrobatidae Nederland" and the "Nederlandse Schildpadden Vereniging" have bi-monthly magazines, "Lacerta" has one monthly and one bi-monthly publication and the "Tilburgse Terrarium Vereniging" has a monthly magazine. The "European Snake Society" publishes the bi-monthly "Litteratura Serpentium" in Dutch and English.

*Spain:* There is only one specialised magazine: "Reptilia", which is also available in other countries and other languages. Its articles deal mainly with the life, care and breed of different species of reptiles and amphibians, though it also touches on the world of arthropods to a lesser extent. A significant part of the magazine is devoted to advertisements for food, materials and specialised shops.

*Sweden:* All relevant associations have magazines: e.g. "Sveriges Herpetologiska Riksförening" publishes "Snoken" quarterly, "Svenska Dendrobatid Sällskapet" (for amphibians only) publishes "Pilgiftaren" annually, "Tropikföreningen Amazonas" publishes "Terrariet" monthly. There are no commercial independent publications.

### *Awareness*

The awareness specifically for the hobbyist herpetology sector can be best reflected by the awareness of the main hobbyist associations, as they play the most prominent roles with regard to assembling and educating the hobbyists, organising events and editing magazines. Information on the awareness of reptile and amphibian shops is included in the chapter "Live Pet Industry General" (under the paragraph "Awareness – Pet Shops")

*National hobbyist associations*

*Austria:* The "Österreichische Gesellschaft für Herpetologie (ÖGH)" thinks that there is not enough understandable information available on CITES and the EU Regulations. Currently, they are obtaining information through own inquiries and they further distribute it to the members by means of publications and discussions (A. Hassl, Secretary, ÖGH, *in litt.* to J. Roos, TRAFFIC Europe, June 2002). They think that the knowledge of the legislation in the sector is not high and that it may cause unlawful and, thus, unmonitored act of animal trading. This association suggests that the regulations should be simple and reconstructable. They have proposed a project to the Austrian authorities to develop a reference guide regarding Austrian species conservation legislation (A. Hassl, Secretary, ÖGH, *in litt.* to J. Roos, TRAFFIC Europe, June 2002).

*Belgium:* The "Belgische Vereniging voor Terrariumkunde en Herpetologie (TERRA)" has specifically designated a person who works together with the authorities to maintain and establish required lists of species under legislation. All parts of CITES and the EU Regulations are understood, although the implementation could be clearer and more uniform in Belgium. Information is obtained through the Management Authority and there is continuous distribution of info about the required procedures for the members (e.g. CITES, welfare of animals, environmental laws). Each time something changes, the members are informed. The overall knowledge in the sector amongst people who are not member to this association is estimated to be very low (H. Claessen, TERRA, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002).

The main negative impact of the legislation is the increase of prices for listed species, which causes traders to turn to other non-listed species. The main positive impact is that the members are now doing a lot of efforts to keep their animals alive and to breed with them. The regulations could definitely be important, but the main threat to species survival is caused by destruction of biotopes (H. Claessen, TERRA, *in litt.* to K. Berkhoudt, TRAFFIC Europe, August 2002).

*Denmark:* The "Nordisk Herpetologisk Forening (NHF)" is aware of CITES and the EU Regulations, but would like to receive better information on certain issues. They currently obtain information from the Management Authority and distribute it to the members through their website and magazine. They suggest that explanations of

the legislation should be put on the internet in a more understandable language (H. Bringsøe, NHF, pers. comm. to T. Hjarsen, June 2002). "Exotiske Insekter" also suggests that more information should be made available through magazines and websites (T. Larsen, Exotiske Insekter, pers. comm. to T. Hjarsen, June 2002).

*Finland:* "Suomen herpetologinen yhdistys ry" is well aware of the regulations and of the fact that a permit is needed to import and export CITES-listed animal species. However, the association would like to get more information, especially practical information for hobbyists. They think it is essential to know more about international trade procedures, costs related to these procedures and the necessary documents. Currently, the association obtains information from the Management Authority and distributes it to the members through the magazine. Related matters are often discussed by the hobbyists and at the members meetings (J. Saarikivi, President, Suomen herpetologinen yhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

The President of "Suomen herpetologinen yhdistys ry" thinks that, generally, the knowledge is not very good in the reptile sector, which is partly due to the fact that legal requirements differ from country to country. In some cases, the complicated and expensive trading procedures may lead to trade of animals without permits. A lack of information can also cause mistakes and malpractices. The permits increase the prices of the CITES-listed animals and, as the permits cost money even in cases when they are not issued, some people may fear to make applications (J. Saarikivi, President, Suomen herpetologinen yhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

Difficult and bureaucratic permit procedures also complicate international scientific research, as e.g. sending museum specimens from one country to another is not easy. Completing the forms for each single specimen may lead to confusion or malpractices (the specimen may be imported to another country with the certificates of another specimen by accident or on purpose). The knowledge of officials in custom and authorities (veterinarians) at the border is weak concerning the identification of species or the nature of trade. The risk of getting caught is low and penalties are minimal. The rules and application forms are difficult to understand and not very tempting, so there is a tendency to sell e.g. captive bred animals without certificates (J. Saarikivi, President, Suomen herpetologinen yhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

The association suggests that the regulations should be uniformised and focus specifically on natural populations. The lists of species should be reconsidered, since too many reptiles are listed as compared to fish and other threatened species. Further, more information should be made available on rules and permit procedures and confiscated animals should be treated in a better way (handle, store, return to nature). Some of the fees collected by authorities should be given to nature conservation organisations (J. Saarikivi, President, Suomen herpetologinen yhdistys ry, pers. comm. to P. Huuska, WWF Finland, June 2002).

*Germany:* The "Deutsche Gesellschaft für Herpetologie und Terrarienkunde e.V. (DGHT)" has a profound knowledge of CITES and the EU Regulations and obtains information on the legislation from the authorities, the internet and through participation in CITES Animals Committee meetings (A. Mendt, DGHT, *in litt.* to J. Roos, TRAFFIC Europe, June 2002). The website of the "DGHT" offers a database that contains status information on all reptile and amphibian species listed in the Appendices in clear German. The association's various magazines also contain relevant information. The "DGHT" occasionally attends fairs with an exhibition in order to educate visitors on all kinds of aspects (e.g. care, biology, conservation, research, legislation) related to herpetology. Additionally, the association has developed, in co-operation with the "Verband Deutscher Vereine für Aquarien- und Terrarienkunde e.V. (VDA)", the "Sachkundenachweis", which is a training module on the care for aquarium and terrarium animals and which also contains a chapter on species conservation legislation in Germany.

*Italy:* The "Associazione Padoana Acquariologica ed Erpetologica (APAE)" obtains its knowledge of the wildlife trade legislation through the media, the internet and the Management Authority and distributes information to its members through their website. This association thinks that the legislation is important, but that it is also necessary to have an uniform application and interpretation of the European regulations and to exhaustively publish the European laws (Anonymous, pers. comm. to TRAFFIC Europe – Italy, July 2002).

*The Netherlands:* The Secretary of the "Europan Snake Society (ESS)" currently obtains information on CITES and the EU Regulations from the Management Authority. However, he is not certain if his knowledge is up-to-date and he does not understand all parts of the laws. He would like to receive better information, mainly on trade in captive bred animals within the EU and the required documents (J.. Jacobs, Secretary, ESS, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002). The associations' suggestions for improving implementation include the development of a legislation newsletter that can be forwarded by the organisations to their members and the development of less strict procedures for getting permits for captive bred animals (J. Jacobs, Secretary, ESS, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002)

The Secretary of the "Nederlandse Schildpadden Vereniging (NSV)" also obtains information through the Management Authority, but also thinks that there is a need for better information. The laws are difficult to understand, especially for beginners who are not familiar with the issue. Whenever legal changes occur, these are published in the association's magazine (M. Klerks, Secretary, NSV, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002). The effectiveness of the wildlife trade legislation depends on the species concerned and its origin. In China and surrounding areas, CITES laws are not working to prevent the extinction of Asian turtles. Breeding these species in captivity is thought to be the only way to prevent extinction. However, generally, the legislation prevents easy international exchange between serious keepers. The "NSV" prefers a stop of the commercial import of turtles and tortoises (M. Klerks, Secretary, NSV, *in litt.* to K. Berkhoudt, TRAFFIC Europe, July 2002).

*Channels for improving awareness*

There are several channels for improving awareness amongst the hobbyists in the herpetology sector. As for birds, most important are probably the national hobbyist associations. They are generally prepared to co-operate with authorities and NGOs in order to better inform and assist their members. One option could be the free publication of articles or advertisements about CITES and the EU Regulations in their magazines or on their websites. However, such articles need to address the major questions by the hobbyists and professionals and not only cover a general outline of the legislation, but also more detailed information on specific issues. Other, less concrete options, include maintenance of communication between the parties concerned, the formation of working groups and/or the organisation of meetings.

Fairs are also useful forums to reach out to the sector. Hobbyist herpetology fairs are organised by hobbyist associations and by commercial businesses. In both cases, there are often possibilities to reach agreements on the free distribution of materials at such events. E.g. both the organisers of the "Exotica" in St. Pölten (Vienna) and the "Reptil and Teich" in Duisburg-Nord have offered a free stand at their fairs.

Other channels for distributing information are the independent magazines, although it is more likely that the inclusion of an article or an advertisement has a price. Still, these magazines could also form a channel to reach out to a certain kind of public, especially e.g. the magazine "Reptilia", which is available in different languages and different countries. There are, of course, also many websites on reptiles and amphibians, some of which belong to an association or a business, others of which are maintained by individual hobbyists. Although placing an article on such websites can also reach a large public, care should be taken by choosing the locations.

### Aquarium Industry

Although the aquarium industry involves a very high trade level for tropical fish and invertebrates, it does not involve many CITES-listed species. Only corals (CITES Appendix II or EU Annex B) seem to be of interest in this regard, as well as seahorses (listed on EU Annex D). However, the impact of the trade may cause additional listings of fish species in the future and, consequently, also force fresh water hobbyists to learn about the legislation and related procedures.

#### *Structure*

The structure of the aquarium industry is again different than the other sectors for birds, reptiles and amphibians. As explained in the chapter "Live Pet Industry General", there are two important international commercial associations specifically for the aquarium industry. The organisation of the hobbyists seems to be somewhat similar to the one for bird hobbyists. There is a high level of hierarchy, from international hobbyist umbrella associations to local clubs.

*International hobbyist associations*

One international umbrella association could be identified, namely the "European Aquaristic and Terraristic Association (EATA)".. This association has seven national member (umbrella) associations with a total of 57,000 individual members in six countries (Austria, Belgium, the Czech Republic, France, Germany and Luxembourg). However, no further information could be obtained on the "EATA" and it is not clear what role is played in structuring the relevant sectors. Although its member associations in the Czech Republic and Luxembourg could not be identified, it seems like the focus of the member associations in the other countries generally is more directed to the aquarium industry than to reptiles and amphibians.

The "Nederlandse en Belgische Bond van Zeeaquariumverenigingen (NBBZ)" has only a limited international scope and targets the Dutch and Belgian aquarium associations. The "NBBZ" educates, organises courses, conferences, study days, symposia and takes care of some publications. Further, through its specialisation, this association has relations with many experts related to seawater aquaristics and amateur seabiology. It is a member of "SATO" (a co-operative initiative between the aquaria and terraria associations) and the "Nederlands Platvorm Verantwoord Huisdierenbezit (NPVH)" (Platform for the responsible keeping of animals).

*National hobbyist associations*

Generally, the objectives of aquarium associations are simple and consist only of one or two sentences. They mainly include issues such as promoting breeding, supporting conservation, promoting responsible trade, encouraging research, co-ordinating activities and distributing information.

*Austria:* The "Österreichischer Verband für Vivaristik und Ökologie (ÖVVÖ)" an Austrian terraristic and aquaristic umbrella association that was estabilised in 1992. It currently has 13 club members with a total of 1,030 individual members. The "ÖVVÖ" is a member of the "EATA" itself.

*Belgium:* The "Belgische Bond voor Aquarium- en Terrariumhouders vzw (BBAT)" was established in 1949 and currently has 51 club members with a total of 4,000 hobbyist members. Besides a board, the "BBAT" has six regional federations. It is also a member of the "EATA".

*Finland:* There is an umbrella organisations for aquarium hobbyists called "Suomen akvaarioliitto", which has around 500 members, mainly private persons. There are also several local clubs for aquarium hobbyists, the largest of which are "Helsingin akvaarioseura", "Tampereen akvaarioseura" and "Turun akvaarioseura".

*France:* Three large national federating associations can be found for aquariums. The "Fédération des Aquariophiles de France (FAF)", established in 1984, gathers 50 local clubs and a total of 1,500 individual members. The other two relevant associations are the "Fédération Française des Associations d'Aquariophiles et de Terrariophiles (FFAAT)" and the "Association Française des Aquariophiles (AFA)". Both the "FAF" and the "FFAAT" are members of the "EATA".

*Germany:* The "Verband Deutscher Vereine für Aquarien- und Terrarienkunde e.V. (VDA)" is the most important umbrella association for aquaristic in Germany. It was founded in 1911 and currently gathers 600 local clubs with a total of more than 25,000 individual members. The "VDA" is also member of the "EATA" itself.

*Italy:* Two associations are of interest in this country, namely the "Unione Italiana dei Club Acquariofili ed Erpetologici (UICAE)", which members are local hobbyist clubs, and the "Associazione Piscicoltori Italiani (API)" that was established in 1964 and that has around 300 members, 90% of which consists of fish breeders.

*Netherlands:* The "Nederlandse Bond Aqua Terra (NBAT)" gathers 150 local clubs for aquarium hobbyists.

*Portugal:* There is one hobbyist club in Porto the CPA: "Clube Português de Aquariofilia".

*Spain:* In this country, there are two large hobbyist associations for this sector. The "Asociación Española de Acuariófilos" (Spanish association of aquarium care) was founded in 1953 and gathers 300 members, most of which are amateurs (90%), while a small number consists of traders or shops (10%). The "Sociedad Valenciana de Acuariófilos" (Valencian association of aquarium care) was founded in 1965 and gathers 2,000 members, most of which are private owners, except for some museums or zoos.

*Sweden:* There is one national hobbyist association: "Sveriges Akvarieföreningars Riksförbund" with around 1,500 members.

***Events***

Events related to the aquarium trade have a somewhat different character than those related to the sectors for birds, reptiles and amphibians. This is mainly caused by the fact that it is not easy to organise fairs for the sale of aquarium animals, due to transport difficulties and welfare issues. Bringing entire filled aquaria from a shop to a fair is simply not possible. Instead, the animals have to be taken out of the water and temporarily housed elsewhere for easy transport. There are many sensitive fish and invertebrate species that can not survive such handling and change of environment. Therefore, at the existing fairs, mainly the less sensitive species are exhibited, plants and books are sold and information is exchanged.

*Belgium:* The "Aquariana" (14 to 22 September 2002 in Gent) occurs every five years and in organised by the "Aquarianen Gent", which is a member club of the "BBAT".. It is a large exhibition, including seminars, that attracted 10,000 visitors in 1997. The "Limbeurs" (7 July 2002 in Houthalen-Helchteren) is an annual aquarium event organised by one of the regional federations of the the "BBAT".

*France :* Three fairs that target fish, invertebrates, plants and gardens are the "Jarditec" (30 September to 2 October 2002 in Paris-Nord, Villepinte), which is organised annually by "Exposium" and which attracts around 250 exhibitors and 3,000 visitors, the "Bourse aux Poissons et aux Plantes" (2 June 2002 in Knutange), which is organized by "Club Aquariophile de Knutange 57", and the "grande bourse européenne de Poissons, Plantes et Invertébrés marins" (22 September 2002 in Schiltigheim).

*Germany:* There are three important events for this sector in Germany. First of all, there is the "Aqua-Fisch" (27 February to 2 March 2002 in Friedrichshafen), organised by "Messe Friedrichshafen". Then there are two simultaneous annual events, arranged by the same organiser, "Zoo Zajac", namely the "Internationales Diskus Championat" (3 to 6 October 2002 in Duisburg-Nord) and the "Zierfische & Aquarium" (3 to 7 October 2002 in Duisburg-Nord), the last of which attracted 54,000 visitors in 2001.

*The Netherlands:* The "NBAT" has an annual fair, called the "Aqua Terra Marktdag" (24 March 2002 in Veenendaal), which attracts around 20 exhibitors and 200 visitors.

Sweden: The "Sveriges Akvarieföreningars Riksförbund" arranges an annual fair in Sweden.

*Magazines*

As for birds, reptiles and amphibians, the most important magazines are the associations' magazines. These reach a very large public and generally include articles about breeding and keeping, but also about conservation and legislation, mostly written by members. Further, there are announcements, advertisements and calendars of events.

There are also some magazines, specifically on the aquarium hobby, published by independent publishers, as well as many websites on aquaria, fish and invertebrates, some of which belong to an association or a business, others of which are maintained by individual hobbyists.

*International hobbyist associations*
The "Nederlandse en Belgische Bond van Zeeaquariumverenigingen (NBBZ)" publishes a monthly magazine "Zee-aquarium".

*National hobbyist associations*
*Austria:* The "Österreichischer Verband für Vivaristik und Ökologie (ÖVVÖ)" publishes "Du und Dein Aquarium" monthly.

*Belgium:* The "Belgische Bond voor Aquarium- en Terrariumhouders vzw (BBAT)" publishes "Aquariumwereld" monthly.

*Finland:* The aquarium sector has one major independent magazine, called "Akvaario maailma", which comes out every two months. It is the most important magazine read by hobbyists and professionals of the aquarium sector. "Kalatalouden keskusliitto ry" (a fisheries umbrella association) publishes "Suomen kalastuslehti" eight times a year. It is widely read by scientists, traders and hobbyists.

*France:* "Aqua plaisir" is a monthly magazine published by "Aqua Media" and "Aquarium magazine" is another monthly magazine published by "Edition du Garou".

*Germany:* There are two relevant commercial publications in this country: "Koralle" (bi-monthly) and "DATZ" (monthly)

*Greece:* There are several magazines that that focus on fishing and diving. "Psarema" and "Vythos" are both published monthly by "Akmon Media A.E.". "Ypovrychios Kosmos" is published monthly and 7,000 copies are distributed throughout Greece and Cyprus.

*Italy:* The "Associazione Piscicoltori Italiani (API)" has a national bi-monthly magazine in Italian and English, called "Rivista Italiana di Acquacoltura", as well as a bulletin.

*The Netherlands:* The "Nederlandse Bond Aqua Terra (NBAT)" publishes "Aquarium" monthly.

*Spain:* There are four relevant publications in this country. The "Revista Española de Acuariofilia", the newsletter of the "Asociación Española de Acuariófilos" (Spanish association of aquarium care), is a small publication that focuses on scientific articles for non-specialists, activities, news and other facts about aquarium care. There are some advertisements related to the sector. "Samaruc" is the publication of the "Sociedad Valenciana de Acuariófilos" (Aquarium care society of Valencia). It has three parts. The first part comprises articles related to aquarium care (species and maintenance of aquaria). The second part is devoted to news, events, meetings, contests and other related issues. The third part is devoted to advertisements for shops, materials and websites.

"Acqua Life" is a bi-monthly magazine that specialises in aquarium care. It includes articles about different species of fish and other groups that can be kept in sea or fresh water aquaria. A small part of the magazine is devoted to the advertisements for wholesalers and retailers in different regions of Spain. "Acuario Práctico" is a very specific bi-monthly magazine exclusively devoted to the world of aquarium care. It informs about the biology, care and breeding of different exotic species of fish and a small section includes articles about other

According to personal comments (Röllke, DOG, pers. comm. to TRAFFIC Europe – Germany, March 2002), BOGA lost lots of its members during the last years and activities of the association have been reduced. An European umbrella organisation does not exist. A special role is played by the "Royal Horticultural Society (RHS)", which is situated in the UK. The RHS is the world's largest horticultural society. RHS operates worldwide and thus is active at European level as well. However, it can not be regarded as an European organisation only. RHS fosters commercial horticulture in general, but there are experts with special focus on orchids in the society. At least a few German companies are members of RHS.

*Hobbyist orchids*

A third type of companies is concentrating on rare species or extra-ordinary hybrids. These companies normally propagate just a few individuals of every taxa and are targeting towards fanciers with a very differentiated and dynamic demand for certain species. Thus, these nurseries also propagate rare species, where trade can have a significant impact on species conservation. Most of these companies, at least in the UK and Germany, are members of the hobby associations, as hobby fanciers are their target group. The border of transition between real companies and the fancier sector is not clear cut, since lots of fanciers also propagate orchids. There is a vital exchange of seeds and seedlings, but also of adult plants among fanciers. Organisation of fanciers and the associated nurseries differs greatly among EU Member States.

In Germany, there are two associations: "Deutsche Orchideen Gesellschaft (DOG)" and "Verein Deutscher Orchideenfreunde (VDOF)", the former one being more important. VDOF was separated from DOG due to individual disagreements. The relationship is quite hostile between the two, though most fanciers are members of both organisations. In the UK, the "British Orchid Council" fulfils a similar function. But in the last years no important expositions or events were organised by BOC. In Sweden, there are many gardening hobbyist organisations. Two of them are large umbrella organisations, they are called "FritidsOdlarnas Riksorganisation" and "Trädgårdsamatörerna". There is one organisation for orchids, "Svenska orkidesällskapet" and one for cacti, "Nordiska Kaktus Sällskapet", the last of which is a Nordic organisation that finds its members in Sweden, Denmark, Norway and Finland.

In Italy and the Netherlands, national associations ceased to exist recently. In France there is no national umbrella organisation either. However, it should be noted that in all those countries vital local associations exist, forming networks of orchid fanciers throughout the countries. In the UK, there is a very high number of such local groups (e.g. "Eastbourne Orchid Society", "The North of England Orchid Society"). In addition to these local or national associations, there are some international networks linked to certain taxonomic interests, e.g. "Slipper Orchid Alliance". Some companies in Germany are also member of the American Orchid Society.

At European level there is one umbrella organisation: "European Orchid Council (EOC)". EOC's main objective is to represent and lobby interests of orchid fanciers. Lobbying has been quite successful in previous years. Recently, however, according to Röllke (DOG, pers. comm. to TRAFFIC Europe – Germany, March 2002), importance diminishes and lobbying in Brussels is not existent anymore. The main activity of EOC is the organisation of an European Orchid Congress and Exhibition every three years, the next being in London in March 2003. Presidency is changing every three years. At the moment, Vinciane Dumont (Genf) from the Swiss "Schweizer Orchideengesellschaft" is Secretary General. She was deputy chair of the IUCN / SSC Orchid Specialist Group in 1996 and co-editor of the IUCN "Status Survey and Conservation Action Plan Orchids" (Hágsater and Dumont, 1996).

*Botanical gardens and collections*

Taking a more scientific approach, the botanical gardens are not directly interesting for the purpose of this study. However, botanical gardens do play a role in orchid trade and could be a useful multiplicator for dissemination of information amongst important stakeholders. Botanical gardens do apply for CITES permits under a special scientific trade system, which allows direct exchange of CITES species among botanical gardens for scientific purposes. Following are two examples from the EU. In the UK, the Royal Botanic Gardens Kew are very famous and have important capacities in any issues involving orchids. In Germany there is a national association of botanical gardens ("Verband Botanischer Gärten e.V."). Experts or excecutives of such associations ususally act as official experts on behalf of the CITES Scientific Authorities, within trade questions relating to CITES in the ornamental plant sector. Botanical gardens often act as reservoir for confiscated plants. In the past, many

problems with seized or confiscated orchids and other species were encountererd, as most species are very sensitive and need thorough care. Fanciers often stress the fact that confiscated orchids did not survive treatment by authorities as well as by botanical gardens (Hansen, 2001).

*Events*

At least one hundred orchid expositions take place in Europe annually. Comprehensive lists can be obtained on the websites of the national associations as well as in their magazines. Probably all of these expositions offer awards for the most beautiful orchids. This kind of challenge is characterising for the fancier sector. But these orchid fairs also want to promote orchids in the public. Lots of work is devoted to detailed preparation of these expositions. In addition to the objective to address the public, the expositions also function as meeting points for orchid fanciers on national, European or even global level. The expositions are mostly organised by the relevant fancier associations. The expositions visited during this study revealed interesting insights within the orchid trade.

Whereas some trade fairs focus on specialist fanciers, others are more directed towards the broad public. Hybrids of insensitive *Phalaenopsis* and rare, much more sensitive species could be obtained, making species composition heterogeneous. One example is the "Orchideenausstellung im Palmengarten", which was clearly directed to the broad public. About 80-90% of the exposed orchids were hybrids, mostly *Phalaenopsis* (ca. 90%). The main focus of the fair was the sale of orchids. In Sweden, one international fair is arranged every year, named "Trädgårdsmässan, Nordiska Trädgårdar". It is arranged by Stockholm fair and "FritidsOdlarnas Riksorganisation".

Another type of fair is the IPM in Essen. According to Thomas Koch ("Orchideen Koch") and Doris Schübbe ("Verband Deutscher Orchideenbetriebe e.V.") (pers. comm. to TRAFFIC Europe – Germany, March 2002) this is the world's most important gardener's fair. The main objective of the fair is to order plants from other companies or to establish new contacts with retailers or other propagators. There is no public part devoted to sale. Gardeners from all fields of horticulture, including orchid nurseries internationally active in trade, take part in this fair. The "European Orchid Council" organises the "European Orchid Congress and Exhibition" every three years, the next of which being held in London in March 2003.

*Magazines*

In the European Union, fancier and hobbiest magazines are widely used to deliver information about ornamental plants to interest groups. Aside from the comparatively huge general gardening sector, which is mostly irrelevant for the trade in species listed under the EU Wildlife Trade Regulations, specific periodicals encompassing taxa listed under CITES exist in some EU Member States. Most of these periodicals are affiliated to umbrella organisations representing the respective interest groups, e.g. orchids only or cacti only.

Generally spoken, readers of such periodicals receive a lot of information on issues such as new colour morphs, cultivation techniques, trade and exchange fairs, new (taxonomic) findings and information on cultivation and gardening tools. Sometimes information on legal requirements is included, but very rarely the information is targeted to the actual stakeholders. Just to highlight one controversial example: there is a general information gap about the necessity of CITES permits accompanying specimens in international exchange for scientific purposes. Fancier and hobbiest groups claim to contribute to science and to fill important gaps by conducting taxonomic work (e.g. Hansen, 2001). However, comparing recently published data on newly described species from wild fresh plant material with actual CITES permits granted, it becomes obvious that very often fancier and hobbiests do not usually apply for import/export permits (German Customs Investigation Agency, pers. comm. to TRAFFIC Europe – Germany, August 2002). This fact is just one of a many typical offences in the realm of plant trade which, if uncovered, will lead to severe sanctions for the trading fancier and hobbiests or scientiest involved. Explanation on procedures and respective targeted information would be very helpful to be part of any article in such magazines. This kind of information would clearly lead to a decrease of wildlife trade law offences within the ornamental plant trade.

Two other dissemination channels for any awareness information encompass e-mail and printed newsletters of botanical gardens and their umbrella organisations and cover e-mail and printed newsletters of ornamental plants fancier and hobbiest's umbrella organisations. Both these channels should be equally used to deliver quality and timely infomation on the Wildlife Trade Regulation (EC) 338/97.

*Awareness*

All orchids are listed on CITES-Appendices. Lots of orchids are of tropical origin and most orchid stakeholders have contacts to fanciers in tropical regions. Thus, most of orchid propagators and fanciers must at some stage deal with CITES. Therefore, CITES is well-known as a convention, which, on the other hand, does not mean that CITES is well understood and supported. Moreover, there is a lot of confusion about CITES and the EU Wildlife Trade Regulations, let alone about the actual trade exemptions suggested by the EU Scientific Review Group (SRG) and decided by the Commission. Commercial stakeholders and fanciers generally dislike over-regulation in trade. The best example culminated in the publication of Hansen's (2001) "Orchid Fever", the popularity of which may be examplified by several translations into various European languages. This book, though funny to read, clearly exposes the clash of cultures between orchid fanciers/cultivators and CITES experts, both parties claiming the ultimate knowledge on the conservation of orchids. Whereas most people support CITES in general, they feel bothered when their own hobby or economic benefit is impacted by the provisions.

There seems to be a need for clarification in order to show fanciers and commercial stakeholders that CITES does not intend to prohibit orchid trade categorically. Lots of fanciers complain about disproportion between habitat conservation and trade regulation. Therefore any argumentation pro CITES and the respective EU Wildlife Trade Regulations has to be very precise and explanatory and should always stress the fact that CITES can only be complementary to habitat and in-situ protection, which is the primary conservation goal. On the other hand, further permit exemptions within the trade in orchids are probably necessary. Frequently, CITES and the respective EU Wildlife Trade Regulations are seen as to prevent amateur groups from doing scientific research, which could fill in some information gaps. To be able to conduct such research with documented results, often there is a trade link to be able to acquire the specimen for analysis or comparison. Hence, an enhanced co-operation between existing "established" scientific institutions and "amateur" botanists should be encouraged whereever possible. Such changes can lead to a better understanding between fanciers and conservationists, resulting in a stronger voice for our mutual aim: the protection of wild orchids from over-exploitation.

Spain has a somewhat peculiar situation. Spain is one of the European countries with the lowest consumption of plants and flowers. Spaniards spend less than 30 Euros on average on flowers and plants per year, whereas Germans and Swedes spend around 115 Euros. However, the sector generates employment for some 50,000 people and is experiencing a clear upward trend. According to Blanco and Breaux (1997), as regards trade and imports of species listed in CITES Appendices I and II, only live plants imported for nursery propagation and used as ornamental appeared. Orchids, cacti and cycads are the highest species in trade. It seems that in Spain most orchid imports are made by private owners for collection use, especially in the Canary Islands. There are 37 species of cycads that are frequently found in trade in Spain and it seems most of them are artificially propagated and used to be listed in Appendix II. Trade usually takes place within the European Union, so the only required document is an invoice.

The general awareness of Spanish umbrella associations and companies in the ornamental plant sector towards CITES was low, because they think they have little relation with CITES. Even a majority of businesses working with cycads or cacti knew nothing about CITES. They said that they obtain the plants from artificial propagation. In any case, it is important to provide information to this kind of companies. As one side effect, an informative task has been completed in many EU Member States, since all of these associations and companies have been informed about the CITES Convention and the respective EU Wildlife Trade Regulations. They now think it is an interesting topic and could be related to the sector in some special cases.

## Medicinal and Aromatic Plants (MAPs)

(trade information is attached in
**Annex II – Trade Data Information** and
**Annex IV – FLORA: Economics and Conservation Issues** –2nd Part)

### *Structure*

*General structure*
The European business sectors using and processing medicinal and aromatic plants (MAPs) can be differentiated into several economic sectors (see also Lange, 1998 and Lange and Schippmann, 1997):

a) pharmaceutical and (complementary) health;
b) cosmetic industry; and
c) food industry, processing MAPs for consumable goods, drinks and dietary supplements.

Despite significant differences among the three sectors where MAPs are used there is one important conformity: association structure is elaborate on national and European level, as all these fields play an important economic role in EU. Most of the associations are well organised and represent strong lobbying groups for their associated companies. Another role they play is extremely important to the objectives of this study: the dissemination of information regarding international laws and regulations, regarding processing, customs, taxes etc. The Chain of Custody of the International Trade in Medicinal and Aromatic (the German example) is shown in Figure 2, on the following page.

*Pharmaceutical and (complementary) health sector*
In general, the number of associations in the pharmaceutical and (complementary) health sector is high and encompass aproximately 15 umbrella associations at European level. The market structure is sophisticated, and involves, aside of businesses, doctors and pharmacists, other therapists and complementary practitioners as well as traders and growers. To depict an example of how European umbrella associations interact with the ones at national level, a model for an information-flow chart has been designed to sketch the European linkeages of associations with the ones in Germany (Figure 3, on page 59).

Taking a close look at every association in the pharmaceutical and (complementary) health sector is virtually impossible. Therefore, information on associations that are only marginally involved in trade are not included in this report. The selection of associations that are relevant is difficult, because assessment of importance for CITES and the respective EU regulation is not straightforward for most organisations.

In this sector, there are five important umbrella organisations on European level, all of them based in Brussels. "The European Federation of Pharmaceutical Industries and Associations (EFPIA)" focuses on the most important companies ("global players") in pharmaceutical industry. Similarly directed to the manufacturers' level, but more important for the approach of this study is "The Association of the European Self-Medication Industry (AESPG)". Concentrating on self-medication industry AESPG has a special committee working with phytomedicines. "European Generics medicines Association (EGA)" represents European generic medicine, while the "European Association of Pharmaceutical Wholesalers (GIRP)" is lobbying for the pharmaceutical wholesalers. "Pharmaceutical Group of the European Union (PGEU)" is doing the same for the retailers' level.

**Figure 2.**
**Chain of Custody of the International Trade in Medicinal and Aromatic Plants: the example of Germany. Courtesy of (Copyright-Holder) Dagmar Lange.**

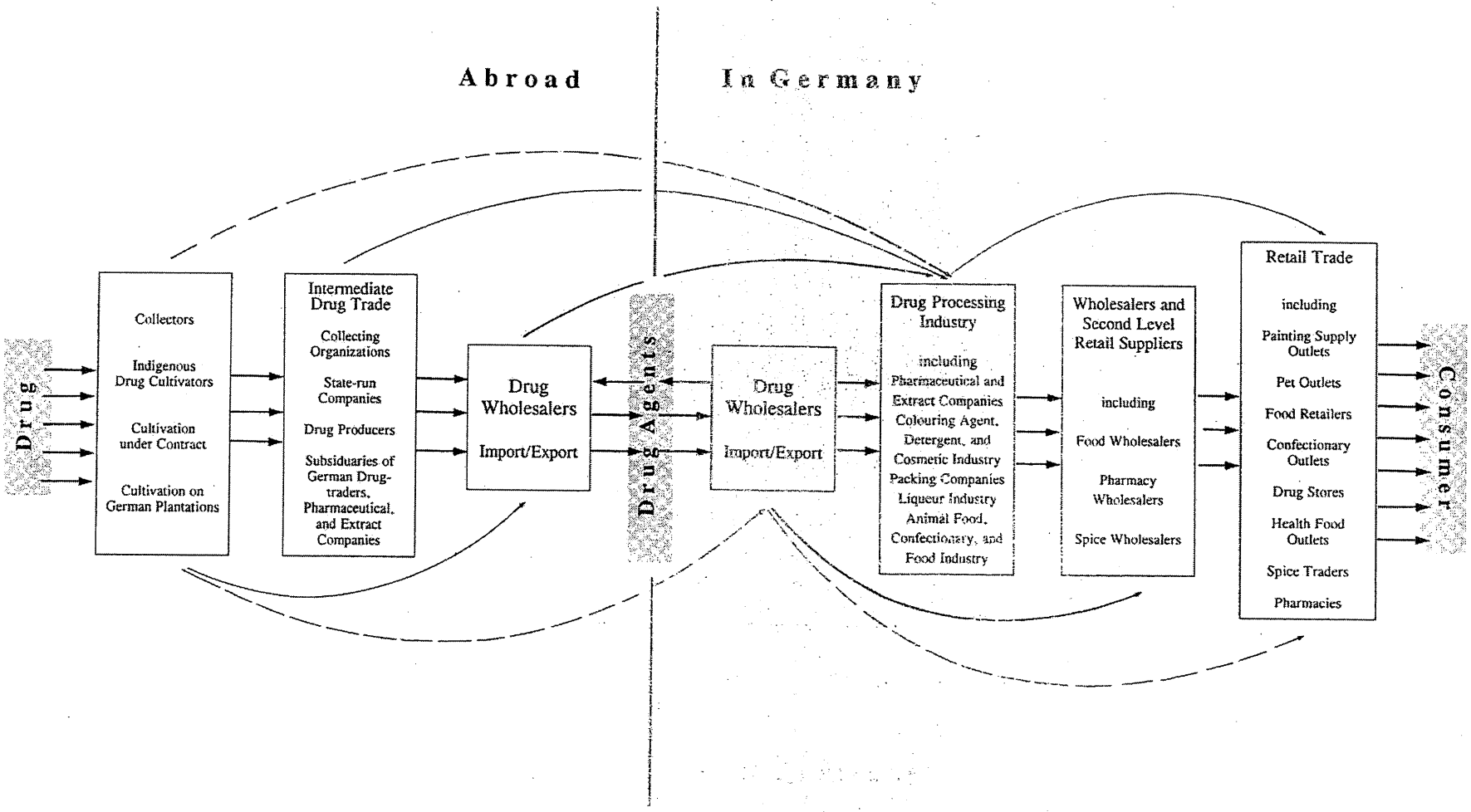
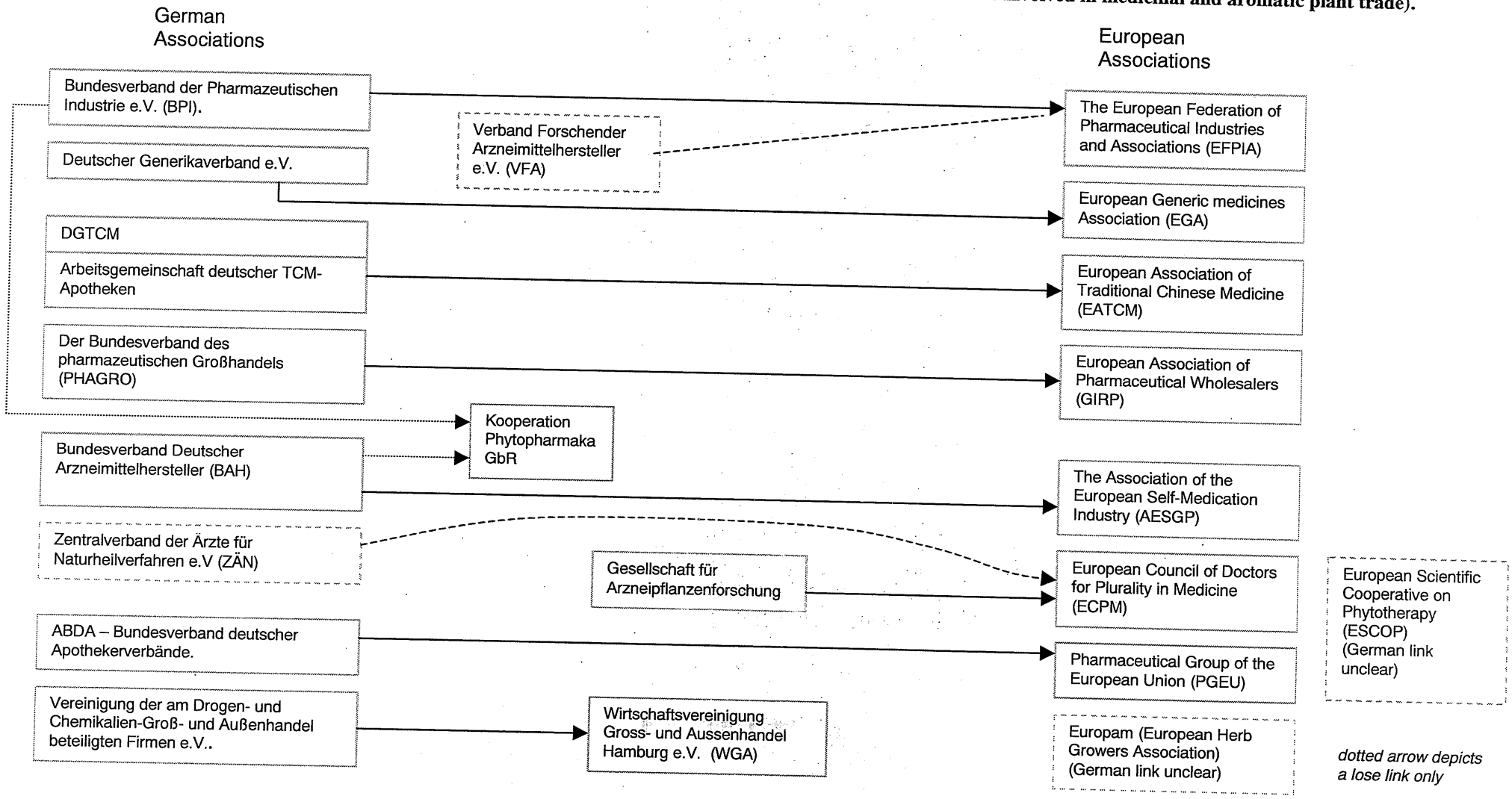


**Figure 3.**

**Preliminary sketch of the European linkeages of associations which are to some point involved in trading in medicinal plants and derivatives from medicinal plants, with an emphasis on Germany (involving umbrella associations of businesses, doctors, pharmacists and of traders involved in medicinal and aromatic plant trade).**



Organisations applying medicines may be important for directing awareness on the EU wildlife trade regulations, if members do import raw material which are to be prescribed or prepared by the respective doctor or practitioner. Five associations of importance were identified in the application sector. Two organisations constitute a lobby for European doctors at EU level in Brussels: "CPME" (doctors in general) and "UEMO" (general practitioners).

Even more interesting is the "European Council of Doctors for Plurality in Medicine (ECPM)" concentrating on alternative methods and promoting application of herbal products in medicine. A special focus is directed to Traditional Chinese Medicine (TCM). TCM is very heterogeneous throughout the EU – regarding importance, legislative framework (a prescription is not always necessary to apply the TCM drugs) and organisation. Three umbrella associations at European level were identified, all of them restricted to doctors using TCM methods. "European Association of Traditional Chinese Medicine (EATCM)" seems to be most important. "ISCM" has a worldwide focus and may hence be less important for the purely European approach. "PFOC" is situated in Amsterdam and was recently established.

On retailer level there are no European umbrella associations concerning TCM. No associations of TCM-pharmacies could be identified in the EU Member States. However, in Germany a working group of pharmacies with special focus on TCM exists. Supply of herbal drugs in TCM is mainly organised by the pharmacies. Thus, this national working group can be helpful to get a better insight in Chinese herbal imports to EU. According to Stefan Wowra (pers. comm to TRAFFIC Europe – Germany, March 2002), regulatory framework for TCM is very different among EU countries. Herbal drugs can be obtained in online shops or by catalogue-selling in many European countries, e.g. in the Netherlands. This practise is regarded as obscure by the organized TCM doctors, practitioners and pharmacists. At the moment the European Commission is preparing a new directive for traditional medicines, which is under debate by TCM stakeholders. Further investigations will help to illuminate structure of TCM market in other European countries.

What has been said for TCM is of the same importance for other "non-European" complementary health systems, such as Ayurveda, Tibetan Medicine, Unani, Jamu, Traditionale Vietnamese Medicine, Hanyak Korean Medicine etc. These health care systems, however, show a far lesser degree of organisation and might be best reached through the practitioners associations. The European Herbal Practioners Association (EHPA), situated in London, will therfore be very helpful in assessing knowledge on CITES-topics on the application level in complementary health care systems.

A rough view was devoted to associations of animal health industry in Europe. This industry often uses the same drugs as human medicine. Use of MAPs in this sector has yet to be assessed, but it is already clear that homeopathic drugs prescribed for veterinary purposes are of high relevance. Up to now, two associations were identified at European level: European Federation of Animal Health (FEDESA) and
Federation of Veterinarians of Europe (FVE).

The European Herb Growers Association (EUROPAM) is situated in UK. To address the expanding market of species listed under the EU Wildlife Trade Regulations Appendix B and D grown under agricultural schemes, it would be important to direct targeted awareness on trade interactions involving the respective species to the relevant stakeholders.

Many consultants and consulting botanists are organised through scientific associations. These can be very helpful in extending information on wildlife trade associations. In this relation, "The International Council for Medicinal and Aromatic Plants (ICMAP)", the "International Agricultural Centre (IAC) in Wageningen (NL)" and the "International Union of Biological Science (IUBS)" have been identified. Closer linked with the commercial market but also with scientific focus is the "European Scientific Cooperative on Phytotherapy (ESCOP)", which is responsible for compiling European monographs on herbal drugs.

At European level there are two agencies responsible for the consultation process on the regulatory framework for the pharmacy sector. The "European Directorate for the Quality of Medicine" in Strasbourg is the responsible agency for the European Pharmacopoeia, the European handbook of pharmaceutical monographs. According to Dr. Schnedelbach from the "Bundesinstitut für Arzneimittel und Medizinprodukte", the respective German

agency (pers. comm. to TRAFFIC Europe – Germany, March 2002), species conservation does not play a role in a medicine's monograph, which focuses on human tolerance and proof of effect only. Species conservation is included in the general foreword. In this chapter it is stated that the collection of raw materials for medicinal products has to comply with existing regulations in source countries as well as with international trade regulations (CITES) (according to Schnedelbach).

The "European Agency for the Evaluation of Medicinal Products (EMEA)" authorises drugs. Main focus is on human tolerance and proof of effects. According to Dr. Reh from the "Bundesinstitut für Arzneimittel und Medizinprodukte" (pers. comm. to TRAFFIC Europe – Germany, March 2002) companies applying for authorisation of their medicinal product have to compile a rough outline about source and harvest of herbal raw material. This is however, not the case for drugs which do not fall under the medicinal code but are applied or used under other systems. There is no clear classification as to when a processed raw material (such as a herbal tea/infusion) or a drug is classified as a medicine, but usually the borderline is that any indication of treatment against diseases, pain or illness on the label of a finished product classifies it as a medicine. All others are usually traded as dietary supplements (i.e. the nutrition sector / food and drinks), or if skin, hair, teeth and other body parts are concerend, as cosmetics. However, it should be noted that these classifications vary from country to country, even among EU Member States.

*The nutrition (food and drink) sector*

The nutrition (food and drink) industry is an important economic sector in EU. At European level "Confederation of the Food and Drink Industries of the EU (CIAA)" is the umbrella organisation consisting of sectional European umbrella associations, national associations and, most important, companies. CIAA is large (ca. 60 members) and regards itself as the official vocal mouthpiece of the food and drink industry in the European Union. Most of the other European umbrella organisations are member of CIAA.

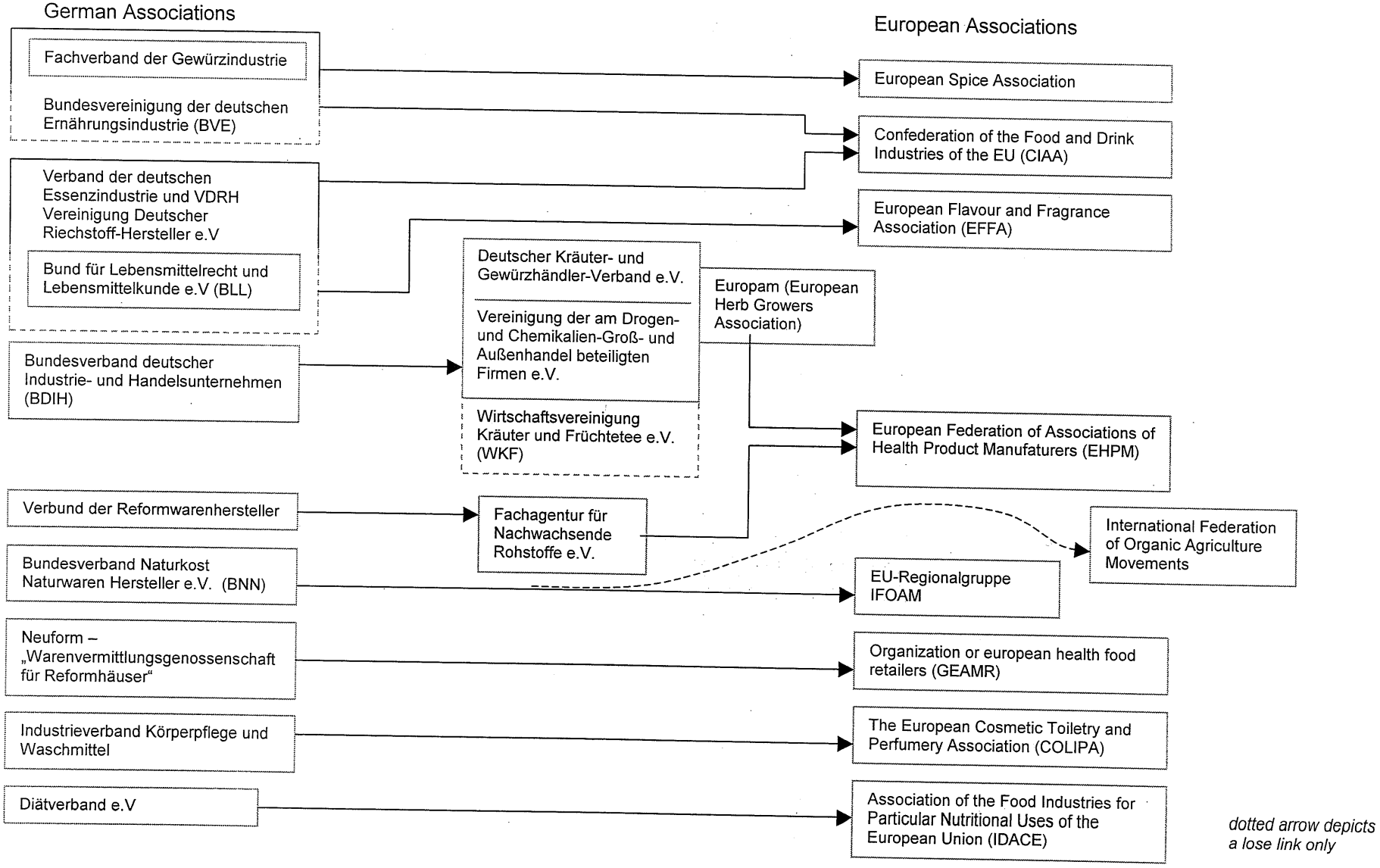
To depict an example of how European umbrella associations interact with the ones at national level, a model for an information-flow chart has been designed to sketch the European linkeages of associations with the ones in Germany (Figure 4, on the following page). Note that this sketch also includes the cosmetic sector.

Of special interest is the European Federation of Associations of Health Product Manufacturers (EHPM) in Brussels. The European Herbal Infusions Association (EHIA) is situated in Hamburg, but mostly deals with widely distributed and for CITES irrelevant herbal infusions (Mr. Düshop, "Drogen- und Chemikalienverein", pers. comm. to TRAFFIC Europe – Germany, March 2002). This seems to be similar for the spice industry, which is represented by the "European Spice Association" (London) and "Association of the Food Industries for Particular Nutritional Uses of the European Union (IDACE)" (Paris), the representation of the dietetic food industry at European level. The European umbrella association "Organisation of European health food retailers (GEAMR)" represents the retailer level of the health food sector.

Associations explicitly dealing with import or wholesale of (herbal) raw materials and drugs are not existent at European level. In Germany these companies are organised in "Wirtschaftsvereinigung Groß- und Außenhandel Hamburg e.V. (WGA)" consisting of 20 sub-organisations, all of them situated in the same building in Hamburg. Most important in the context of this study are "Vereinigung der am Drogen- und Chemikalien- Groß- und Außenhandel beteiligten Firmen (Drogen- und Chemikalienverein) e.V.", "Deutscher Kräuter- und Gewürzhändlerverband e.V.", "Wirtschaftsvereinigung Kräuer- und Früchtetee (WKF) e.V." and "European Herbal Infusions Association (EHIA)".

**Figure 4.**

**Preliminary sketch of the European linkeages of associations which are to some point involved in trading in aromatic plants and derivatives from aromatic plants, with an emphasis on Germany (involving umbrella associations of businesses, wholesalers and retailers [including healthfoodshops and other nutrition sectors and cosmetics] involved in aromatic plants trade).**



Mr. Düshop (executive director of "Drogen- und Chemikalienverein" and "Deutscher Kräuter- und Gewürzhändlerverband") revealed that in these companies at least a few species listed in EU-Regulation 338/97 play a role (mostly Annex D, e.g. *Arnica montana*) (pers. comm. to TRAFFIC Europe – Germany, March 2002).

*Cosmetic sector*

The cosmetic sector is of minor importance for the scope of the study, as MAPs play only a marginal role. Yet, two organisations have been identified at European level, which are most relevant in the context of this study: European Flavour and Fragrance Association EFFA (Brussels) and Colipa (Paris). Both organisations represent businesses which deal mostly with synthetic frangrances. In case of fragrances and ingredients involving natural raw material, the number of species falling under the EU Wildlife Trade Regulations is difficult to estimate but most probably neglectable (Dils, EFFA, pers. comm. to TRAFFIC Europe – Germany, April 2002). However, the use and trade role of *Arnica* spp. (of which *Arnica montana* is listed under the EU Wildlife Trade Regulations Appendix D) in the cosmetic sector should be closely monitored (Honnef, pers. comm. to TRAFFIC Europe – Germany, July 2002).

A visualisation of the interaction of European umbrella associations with the ones at national level is shown on the former page (Figure 4). This sketch also includes the nutrition sector.

### *Events*

Fairs of international trade relevance are never targeted to MAPs and nowhere in Europe are MAPs traded internationally via fairs (Lange, pers. comm. to TRAFFIC Europe – Germany, 15 May 2002; Zink, pers. comm. to TRAFFIC Europe – Germany, 17 July 2002). Trade fairs are at most of local importance and serve the local and regional domestic demand. These findings correspond to the experience gathered through three workshops on trade and sustainable use of MAPs organised by TRAFFIC (22$^{nd}$ –23$^{rd}$ June 1998, Royal Botanical Gardens, Kew; 22$^{nd}$ March 2001, Frankfurt; 24$^{th}$ April 2002, Schwäbisch Gmünd) and through the ongoing working group process on MAPs in the UK and Germany. Hence, events such as fairs are not important for the sector processing, trading and using MAPs. Nevertheless, we visited the (world's largest) "World organic trade fair BIOFACH" in Nürnberg (Germany) on 16$^{th}$ February 2002 and confirmed our earlier conclusions. Several fair webpages expose MAPs or MAP desks on their website, but again, these markets supply local markets offering mostly local herbs.

### *Magazines*

Magazines are not a typical way of informing clients and consumers in the MAP sector about whether or not a product's import is based on sustainable harvesting from the wild. However, certain approaches may be helpful to provide useful information to a targeted audience in this respect.

Only very few targeted magazines and publications exist, which inform decision makers for the acquisition, import, export and processing of MAP raw material of relevance to the EU Wildlife Trade Regulations. These can be used to disseminate technically detailed and quality information as far as MAP trade is concerned. Specification on derivatives and parts is most important in this sector, as is the difficulty in distinguishing related species from another. Compliance with the requirements for trade in Annex D species and with the EC organic farming regulation 2092/91, which allows for certification of wild-crafted MAPs, are two other important issues that need to be addressed.

These decision makers include a diverse group of people such as pharmacists (which, e.g. under German law may be regarded as "producers" of medicines and, in fact, specialised pharmacists do so when mixing raw material for recipes in the case of complementary medicinal schemes such as in Traditional Chinese Medicine), importers for herbalists and drugstores, traders, sometimes even doctors and practitioners and, finally, the small knowledgeable group of consultants who confer with businesses and traders within the MAP sector on compliance issues respective to the EC organic farming regulation 2092/91.

Aside from the aforementioned targeted magazines and publications, each of the larger identified umbrella organisations uses internal information channels via e-mail and e-mail listservers to provide member organisations and other interested parties with most up-to-date legal information of relevance to their clients. These internal information channels provide an extremely useful tool to disseminate information on the EU Wildlife Trade Regulations.

In order to target the general European public, health, general medicine, esoteric and wellness journals and magazines (as well as respective TV and radio channels) form important tools. Advertisements, publications and broadcasts through these channels can influence the consumers' behaviour and, additionally, help to achieve conservation aims within the MAP sector by creating more public pressure to position this field of biodiversity use and the related sustainability problems as a top priority .

*Awareness*

Knowledge on CITES is very sparse or sometimes even non-existing in more than 90% of all associations, whether at national or at European level. There is hardly any staff working on CITES/wildlife trade or sustainable use and trade issues in any of the associations yet, and this also accounts for the businesses in Europe dealing with either the health, nutrition or cosmetic sector (Honnef and Schmitt, TRAFFIC and WWF respectively, pers. comm. to TRAFFIC Europe–Germany, July 2002).

Most of the stakeholders and traders are completely unaware that specific raw materials or finished products are falling under wildlife trade regulations of the EU. The level of awareness is generally spoken, very low in all sectors analysed, but extremely low whithin the nutrition and cosmetic sector. To complicate the situation for the health sector, the differences in names between the ones given by botanists based on taxonomy and the ones given by the pharmaceutical community for parts or whole plants are totally different. Especially for the species under Annex D, which the EU has established to be able to act as a tool of precaution, procedures are almost completely unknown to the stakeholders.

According to Mr. Schultz (Bundesverband der Pharmazeutischen Industrie, pers. comm. to TRAFFIC Europe – Germany, April 2002), companies in the pharmaceutical sector have to prove that they can provide the plant material legally as far as species conservation legislation on which the medicine is based is concerned. This is part of the so-called medicinal and/or pharmaceutical 'registration process'. Many people interviewed think this should not be an aspect of the registration process. However, this process provides for a good incentive for cross-compliance of used MAPs within other EU legislative provisions.

According to Mr. Schultz, medicines from endangered species involve a lot of paperwork. First a permit to get the raw material, then new permits for trading with any of the products. There is one exception for Yew (*Taxus* spp.). He suggests to provide more exemptions like this. Such suggested changes, however, must pend a thorough analysis of the conservation impacts. Furthermore, several informed stakeholders remarked that, especially for the medicine depending on European raw material resources, it is very important to know in which European countries what status of protection exists for a certain species. There seems to be a need for easy access to all national laws in an English translation, not only for the traders and producers, but also for the certifiers and the respective authorities.

According to Mr. Zink (Martin Bauer AG, pers. comm. to TRAFFIC Europe – Germany, April 2002), other informed stakeholders complain that the information is not readily available via, e.g. the internet. Provisions and regulations of the EU are somewhat contradictory in its text and need cross-compliance if to be legally deployed by companies. He suggests targeted seminaries to businesses, held by associations in conjunction with the respective CITES authority in an EU Member State.

Mr. Reijngoud (Netherlands Ministry of Agriculture, Nature and Fisheries, pers. comm. to TRAFFIC Europe – Germany, April 2002) is an experienced customs officer dealing with MAPs in TCM products in trade in the Netherlands and consulting other custom and enforcement agencies in the EU and neighbouring countries concerning the trade with medicinal and aromatic plants with special reference to TCM. The Netherlands has experienced a targeted awareness campaign on wildlife trade regulations compliances regarding TCM products.

Some years ago Dutch trading companies generally only possessed poor information. Since then the Ministry, in conjunction with NGOs (WWF and TRAFFIC), has undertaken various efforts to change this situation. Efforts included:

- organisation and performance of seminars for companies, which were very well accepted,
- distribution of special brochures and handouts among associations,
- construction of a database containing all the necessary information of plants, extracts and products from plant materials being affected by the EU Wildlife Trade Regulations.

Furthermore, schooling modules were designed to approach TCM training institutions. There is still, however, a lot of international trade coming through the ports of the Netherlands, not only assigned to the Netherlands, but also to other EU Member States. Those goods that enter the European Union include specimens listed in the EU Wildlife Trade Regulations, but are not declared as such. This is due to different reasons:

- the companies do not want to undertake the effort;
- sometimes it is nearly impossible to get the right papers as authorities can be very slow and not always forthcoming in providing the papers;
- if goods are imported via a re-exporting country, it often happens that authorities are not aware that there have to be re-export documents. According to the lack of re-export documents, the goods are imported without import documents. Mr. Reijngoud believes that the lack of training and controls in other countries also effects the handling of permits for import in the European Union;
- as there has been a lot of controlling and training of customs in Dutch ports, most trade shifted to other ports.

Generally Mr. Reijngoud's impression is that most large companies are eager to do their business within a legal scope. However, sometimes it is nearly impossible to do so, considering lacking or wrong information coming from some authorities. Also businesses have difficulties to remain up to date with the latest developments in the legislation. He certainly thinks that there is lack of information in companies dealing with foods, nutrition, food supplements and cosmetics. Specially as more and more plants are being listed. Most of these companies do not seem to be sensitive to species conservation legislation at all. His experience with TCM shows another important point. Targeted information is necessary. When it does not refer to their language, special thinking or terminology the information is useless. As the Netherlands has already assigned a specialist on TCM, they are willing and already sharing this information with other countries' training custom officers etc.

In Greece, Spain and Portugal, the general knowledge on CITES implementation regarding MAPs is extremely low and further hampered by the complexity of the existence of many threatened native plants in use, which are protected by national legislation. In Denmark, it has not been possible to identify any products covered by CITES or the EU wildlife trade regulations on sale. Several retailers offer health medicine in Denmark, but these do not include any products covered by CITES or the EU Wildlife Trade Regulations. Probably no production takes place by professionals, however, import takes place and illegal shipments of Asian medicine are confiscated by customs. Such imports are mainly made with postal service. In addition, the complementary health sector in Denmark is overall assumed to be growing, since more health clinics appear to be offering Asian medical treatment, etc.

## Leather, Fur and Wool Industries

The leather, fur and wool industries are quite different from the other sectors discussed in this report. There is a high level of commercial and professional organisation, but the vast majority of the overall trade involves non-CITES-listed species, such as cattle, sheep and pigs. The small number of businesses working with more exotic species cover animals such as reptiles, frogs, kangaroos and elephants (for leather), foxes, mink and coyotes (for fur) and camelids and antelopes (for wool), some of which include CITES-listed species.

### *Structure*

There are many international and national commercial associations that organise other associations and/or manufacturers and retailers. Their objectives generally include issues, such as representing the sector, defending the interests, lobbying on international and national levels, distributing information, promoting research, stimulating trade activities and improving the quality of related products. The national structures in the EU Member States show many similarities, but the characteristics specifically of the exotic leather, fur and wool markets differ significantly.

*International commercial associations*
One large international umbrella association for the leather industry is the "International Council of Tanners (ICT)". The "ICT" is based in the UK and currently has 25 members (national associations of leather producers) worldwide. Another international umbrella association, but with an European scope, is the "Confederation of National Associations of Tanners and Dressers of the European Community (COTANCE)", which was established in 1957. "COTANCE" is based in Brussels and currently has 12 members, which are national associations in Belgium, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the UK. Through these national associations, "COTANCE" covers more than 90% of all leather companies. There are also 4 Associate Members in Norway, Switzerland, Hungary and Slovenia.

The "International Fur Trade Federation (IFTF)" is an international umbrella association for the fur industry. It was established in 1949 and currently has 34 members (national fur associations) in 28 countries worldwide. The "IFTF" works closely with IUCN (it has been member since 1985) and CITES, supporting scientific research on the conservation status of species and avoiding trade in case they are endangered.

For the wool industry, there are several international associations of interest. Most important is probably the "International Wool Textile Organisation (IWTO)", which was established in 1928. "IWTO" is based in Brussels and currently has 25 members, which are national associations in Australia, Argentina, Belgium, Brazil, Canada, Egypt, Finland, France, Germany, India, Italy, Japan, Netherlands, New Zealand, People's Republic of China, Portugal, Russia, South Africa, Spain, Switzerland, Thailand, Turkey, the UK, Uruguay and the USA. Further, there are the "European Apparel and Textile Organisation (EURATEX)" and the "Committee of the wool textile industries in the EEC (INTERLAINE)", both also based in Brussels.

*National commercial associations*
*Germany:* There is one association of special interest to the exotic leather sector involving CITES-listed species, namely the "Internationaler Reptille der Verband und Reptilartenschutz (IRV)". This association was established in 1972 and has 40 members, which are reptile leather wholesalers and reptile leather manufacturers. Although the name suggests otherwise, the "IRV" has a national scope and all its members are German businesses. It developed the species conservation tag, a monitoring tool for reptile leather products from CITES-listed species, which has been recognised as an official CITES document by German authorities in 1987. Their main activity is the monitoring of their members' activities and the developments in national and international species conservation legislation. These activities should contribute to the credibility of the species conservation tag and ensure that it maintains its original standard.

Other associations of interest in this country are, for leather, the "Bundesverband des Deutschen Lederwaren" and the "Verband der Deutschen Lederindustrie" and, for wool, the "Deutsche Wollvereinigung", which is member of the "IWTO".

*Greece:* For the leather industry, there are the "Panhellenic Association of Leatherwear Manufacturers" and the "Elliniki Kentro Dermatos" (Hellenic Leather Centre), the last of which certifies the quality of leather. For the fur industry, there is the "Greek Fur Trade Federation", which is member of the "IFTF".

*Italy:* The "Unione Nazionale Industria Conciaria (UNIC)", gathers almost all tanneries (2,400 of around 3,000) and is member of the "ICT" and "COTANCE". The "Associazione Italiana Manifatturieri Pelli e Succedanei (AIMPES)" was established in 1960 and represents 280 leather manufacturers (40 of which work with reptile leather). For the fur industry, there is the "Associazione Italiana della Pellicceria (AIP)", which collects around 200 furriers and which is member to the "IFTF". For the wool industry, there is "Sistema Moda Italia" that represents around 1,500 firms and is member of "IWTO" and "INTERLAINE".

*Portugal:* For the leather industry, there are several associations of interest. The largest commercial association of tanners is the "Associação Portuguesa dos Industriais de Cortumes (APIC)", but it has no members working solely with pelts from wild animals, since the focus of the tanning industry in Portugal concerns pelts from domesticated animals. Then there is the "Associação Portuguesa dos Industriais de Calçado, Componentes, Artigos de Pele e seus Sucedâneos (APICCAPS)", which was established in 1975. "APPICAPS" represents textile and shoe industries and industrial equipment for these sectors and currently has 500 members. The "Associação Nacional das Indústrias de Vestuário e Confecção (ANIVEC)" was established in 1975, represents clothing manufacturers, has 550 members and is member of "EURATEX". The "Associação Portuguesa dos Têxteis e Vestuário (APT)" represents clothing and textile industries. The "Associação Comercial de Moda (ACM)" is a commercial association of the fashion industry that was established in 1975 and has 17 members. There is no association strictly representing furriers, although there is an attempt among manufacturers and retailers from Lisbon and Porto to organise a Portuguese association of furriers with the support of "ANIVEC" and "IFTF".

*Spain:* There are quite some associations covering the leather, fur and wool industries in this country. The "Consejo Español de Curtidores" is the Spanish tanners council that was established in 1978, has 220 members (which are industrial tanning companies) and is a member of "ICT" and "COTANCE". The "Federación de Industrias del Calzado Español" is the Spanish federation of shoe industries that was established in 1997 and has 2,700 members (shoe manufacturing companies). The "Asociación Española de Fabricantes de Marroquinería, Artículos de viaje y Afines (ASEFMA)" is the Spanish association of leather goods, travel items and related goods that was established in 1998 and has 101 members (mainly manufacturers and some suppliers)

For the fur industry, there is the "Organización Empresarial Española de Peletería (OEEP)", which is a Spanish fur employers' organisation. It was established in 1978 and has 390 members, which include shops (60%), factories (30%) artisan workers (10%). The "OEEP" is a member of the "IFTF". For the wool industry, there is the umbrella association "Federación de la Industria Lanera Española", a Spanish wool federation that represents four regional associations.

### *Events*

*Germany:* One event of interest has been identified in this country, namely the annual "Fur & Fashion Frankfurt" (10 to 13 April 2003 in Frankfurt). It is organised by "Fur & Fashion Frankfurt Messe GmbH" and generally attracts around 160 exhibitors and 9,000 visitors.

*Greece:* Main annual events include the "Skinexpo" (11 to 13 May 2002 in Athens) to which only professional visitors are allowed, the "Furmode" (10 to 12 October 2002 in Thessaloniki) that attracts around 40 to 50 exhibitors and 2,000 visitors, and the "Annual Fur Exhibition" (7 to 10 March 2002 in Kastoria) that attracts around 80 exhibitors and 3,000 to 4,000 visitors.

*Italy:* The "AIMPES" organises the biannual leather fair "MIPEL" (19 to 22 September 2002 in Milan), which is the most important fair for the tannery industry in Italy. Then there is also the bianual "Lineapelle" (5-7 November 2002, Bologna), which generally attracts around 1,500 exhibitors and 32,000 visitors. During one

visit to the "Lineapelle", it was observed that around 30 exhibitors sold leather from exotic species (reptiles, elephant, ostrich).

*Portugal:* There are two relevant fairs for the leather sector, both taking place at "EXPONOR" (Porto International Fair). The first is "MOCAP" (16 to 18 January 2003 in Porto), an annual fair organised by "APICCAPS" and directed to shoes and leatherwear. The second one is "Expocouro/Fipele" (28 to 30 November 2002 in Porto), a fair where the representatives of the leather industry usually buy leather for next year's production. It is organised biannually by "APIC".

*Spain:* The main event in Spain is the "Semana Internacional de la Moda de Madrid (SIMM) - Salón Internacional de Peletería y Confección en Piel" (30 August to 2 September 2002 in Madrid), which is the international fashion week of Madrid – the international leather and fur fashion fair. This is the second largest European fair for this sector concerning number of exhibitors, surface and number of registered specialised visitors. It features pavilions devoted to all aspects of fashion, including fur and leather. Then there is the "Textilmoda" (3 to 5 September 2002 in Madrid), which involves all the sectors of leather, fur and wool. The most frequent visitors are designers, heads of purchases, fabric retailers, agents and independent stylists. The "Iberpiel/Marroquineria" (27 to 29 September 2002 in Madrid) is the international fair of leather goods in Madrid. The exhibitors are usually manufacturers and importers, while the visitors are traders of leather accessories and shoes. The "Modacalzado" (27 to 29 September in Madrid) is an international shoe fair that features manufacturers and importers as exhibitors and shoe traders as visitors. All the fairs described above are organised by "IFEMA - Feria de Madrid".

Additionally, there are a few relevant fairs in other Spanish cities, namely the "Futurmoda" (19 to 21 November 2002 in Alicante) organised by "Feria de Alicante". It is an international fair of leather and fur, components and accessories for shoes and leather goods. The "Pielespaña" (18 to 21 January 2003 in Barcelona is an international leather fashion exhibition organised by "Fira de Barcelona", while the Fimetex" (19 to 22 January 2002 in Valencia) is and international textile fair organised by "Fira de Valencia".

### *Magazines*

*Greece:* There are several Greek magazines on leather. However, they do not circulate openly in the market, but are rather distributed directly to retailers, wholesalers, manufacturers and importers. They are mainly fashion magazines that deal primarily with manufactured products, such as bags, shoes, and clothes. Some of the most important ones are "Derma Presentation", which is published biannually, "DermaVima", which is published three times a year, "Dermosynthesi", which is published three times a year and is distributed freely among 6,000 leather retailers, "Elite", which is published annually, "NEAderma", which is published monthly and is distributed to 7,000 readers, and "Pronto Moda", which is published biannually and is distributed among 7,500 leather and shoe businesses.

As for the fur industry, two magazines are of interest. The biannual "Infur" is a glossy fashion magazine published in 5,000 copies, while the bi-monthly "Infur News" is a newsletter published in 2,000 copies. Both are published by "Avenue Creative Services" in Thessaloniki and distributed for free. They are of very good quality and serve the fur industry in Kastoria and Siatista.

*Italy:* As for leather, the "UNIC" publishes its own magazine, as well as the "AIMPES", the last of which is the quarterly "MIPEL Magazine". There are also some businesses in this sector that publish magazines. As for wool, "Sistema Moda Italia" and its members have several specialised magazines.

*Portugal:* The "APICCAPS" publishes a monthly newsletter aimed to its members "Jornal APICCAPS". This newsletter focuses on national and international trends in the textile and shoe industries. The "APICCAPS" and the research centre for footwear "Centro Tecnológico do Calçado (CTC)" are responsible for the publication of "O Sapato", which is directed to both the members and the general public, focusing on fashion and technology issues. "ANIVEC" publishes a newsletter every three months, named "Informação", which is distributed to the members. It dedicates an entire chapter to legislation concerning the clothing and textile industry.

*Spain:* There are three relevant publications in this country. The "ASEFMA" publishes the bianual "Noticias ASEFMA", which includes news about fairs, activities, European organisations, entrepreneurial meetings of the sector, environmental actions and more. The "OEEP" publishes the newsletter "Infopiel", which is addressed to the companies in the fur sector. It provides information about activities, meetings and other interesting events for the sector and it also reports about agreements, policies and legal provisions that affect the sector. A section is devoted to opinions and contacts between companies and small enterprises. There is no space for publicity. "Lederpiel" is a bi-monthly magazine devoted to the leather sector. It features short articles about the situation of the market, the economy and technological developments. Another major part is devoted to fashion in the sector. There is a fair amount of publicity of small and large companies, brands and national and international fairs.

*Awareness*

In total, 12 associations and ten businesses working in the leather, fur and wool sectors have been interviewed. Generally, the awareness of CITES and the EU Regulations seems to be superficial. Most of the stakeholders know the legislation, but are poorly informed of the details. The reason for this lack of knowledge is often mentioned to be the low trade in CITES-listed species for the sectors. It was observed that certain associations and businesses have a higher knowledge, often because they have to deal with the legislation more frequently.

Although not all interviewed people asked for more information, certain associations that would like to be able to inform their members and some businesses working with exotic species were interested obtain more details. The current sources of information are very variable and range from the Management Authority and other authorities to the commercial association, the internet and colleagues. Only few associations distribute information on CITES and the EU Regulations to their members, mainly because most associations think it is not relevant for the vast majority of their members.

Most associations and businesses think that the legislation is important for the protection of species, but impacts are thought to include lengthy application procedures, additional financial costs and related problems in planning the activities. Suggestions for improved implementation often included the distribution of comprehensible information, the establishment of a website with the latest updates and the organisation of meetings and workshops specifically on this issue.

Channels for distributing information on CITES and the EU Regulations include the main commercial associations that have expressed their interest, the events they organise and the magazines they publish. Associations such as the European "COTANCE" and the Portugese "APICCAPS" have already offered to co-operate on these kind of initiatives. Further, for this sector, it seems to be most effective to establish contacts directly with the relevant businesses in order to serve their specific needs.

## CONCLUSIONS

Six main EU wildlife trade markets in the most relevant EU Member States have been described in this report, namely: 1) birds, 2) reptiles and amphibians, 3) aquariums, 4) ornamental plants, 5) medicinal and aromatic plants (MAP) and 6) leather, fur and wool. Results of the study show that these markets have different characteristics in terms of structures, objectives and activities. In addition, the stakeholders have different levels of awareness regarding EU Wildlife Trade regulations, or CITES. Needs to improve stakeholders' understanding and knowledge on the implementation of the legislation also greatly differ per EU Member State, or geographical area in the EU, e.g. Scandinavia versus Mediterranean.

### Structures

The general live pet industry knows some commercial organisation, mainly on national level. There is almost no specification for different animal groups, although the aquarium industry forms an exception and knows commercial organisation on international level and, in some cases, on national level.

The three live pet sectors know a high degree of organisation for hobbyists. There are many hobbyist associations that form extent networks. Especially the bird and aquarium sectors have highly hierarchical structures, from associations on international level to associations on local level. Hobbyists working with reptiles and amphibians are more loosely connected in national and regional associations.

The ornamental plant industry is organised both for commercial and hobbyist purposes and there are associations on international and national levels, also covering scientific institutions, such as botanical gardens. The MAP sector is highly organised for commercial reasons on international and national levels for all three different economic categories: 1) pharmaceutical and (complementary) health, 2) nutrition and 3) cosmetics.

The leather, fur and wool industries are also highly organised for commercial purposes at national and international levels. However, compared to the other sectors, trade in CITES-listed species play a marginal role.

### Events

There are many relevant fairs organised in all sectors, except in the MAP sector, either organised by associations or by commercial businesses. The fairs for the general live pets industry and for the leather, fur and wool industries have a highly commercial character and involve few CITES-listed species. On the other hand, hobbyist fairs for birds, reptiles, amphibians and ornamental plants, which are generally very abundant, involve many CITES-listed species. Fairs targeting the aquarium industry rarely involve the sale of exotic species, as these are often more sensitive and can not survive intensive handling and change of environment.

### Magazines

Magazines are very abundant for all the sectors and are either published by associations or by independent publishers. The associations distribute information among their members through regular magazines, newsletters and/or through their websites. Independent publishers mostly target the general public and hobbyists and often have more an entertaining than an educating function. These channels are very important in reaching the stakeholders. Additionally, especially for the hobbyist sectors of birds, reptiles, amphibians and ornamental plants, there are many websites, maintained by individuals that provide information and the possibility to exchange information and/or buy or sell specimens.

### Awareness

Generally, the awareness among the commercial associations, hobbyist associations and traders seems to be reasonable. Most of them have heard about CITES and the EU Regulations and understand the overall requirements, although the knowledge in the hobbyist sectors that involve the trade in many CITES-listed species (birds, reptiles, amphibians, aquaria and ornamental plants) is higher than in the commercial sectors

(MAPs, leather, fur and wool). It is very notable though that almost all stakeholders experience some problems in obtaining comprehensive information and in staying up-to-date with the latest developments, especially when it comes to decisions made by the EU Scientific Review Group. Occasionally, different authorities provide different answers to questions, which is a source of significant confusion.

As for the sectors involving live animals, there seems to be some confusion with regard to article 9(4) of EU Regulation (EC) N° 338/97. Some stakeholders have not heard of it at all, while others have problems with the interpretation. Currently, the article is mainly a theoretical rule, as there are no specifications on how it should be implemented and enforced. Generally, the customers are free to contact shopkeepers in case of questions or problems. Some shopkeepers do not sell animals to people in case of suspicion, while others ask the customers to return to the shop later to discuss the state of the animal. It is notable that many shopkeepers claim to be in favour of a certification system, which could be a label for the quality of the shop and which could discourage the businesses that have mainly commercial motivations, low knowledge and low enthusiasm.

Overall, CITES and the EU regulations are regarded as very important tools for the conservation of species and the effective support of sustainable use of wildlife. However, it was often mentioned that there is also a need for habitat protection. A few additional remarks were made, such as the need for avoiding overprotection and prohibitions (that possibly stimulate illegal trade), the need for common worldwide application (either international prohibition or international permission, but no EU import bans, while trade is legal in other parts of the world) and the need for less strict measures concerning the trade in captive bred and propagated specimens. The impacts of the legislation on the sector are mostly thought to affect importers. Most stakeholders think that obtaining certificates involves a lot of bureaucracy, administration and financial costs. Especially the long procedures cause problems in terms of trade relations with exporters and in terms of animal health and welfare.

The associations and traders made many suggestions for improving the awareness and implementation of CITES and the EU regulations. First of all, they would like the Management Authorities to send information and updates on the legislation automatically to the stakeholders and the people who have expressed their interest. Then there should be one source, e.g. a website, where they can find an overview of all the laws (including CITES, EU Regulations and national laws) and regular updates in an easy-to-understand language. Such a website should also include the complete lists of species with the most recent changes and import suspensions and the species scientific names should be complemented by common names in foreign languages and, if possible, by photographs. Further, the associations and traders would like to be better informed about very specific and practical matters for their sectors (e.g. trade in captive bred animals, marking and registration) and about the differences in implementation between EU Member States (not only regarding the international trade, but also the national trade and keeping of CITES-listed species). It was also mentioned that the authorities should be easily reachable in case of questions and be able to provide the required information in clear language.

Many stakeholders mentioned the need for more communication between the authorities and the traders. Proposals included the organisation of regular meetings or even the formation of working groups to discuss the issues, problems, plans for the future and improvement of communication. Also, the traders would like to be taken more seriously and be involved in the making of decisions and the formation of legislation. There is a demand for more recognition, e.g. by a certification scheme as mentioned above, and for the elimination of unreliable businesses and grey markets. Often, associations and traders thought that inspections could be intensified and fines could be increased, but also that the authorities should acquire more knowledge on the identification of species and the care for exotic animals (especially for the Customs and confiscation facilities, where many animals die due to improper care). Another suggested change concerned the establishment of clear dates on which the lists of species are adjusted and the granting of permits for the applications received before those dates. Further, it was often suggested that the time frame for the application of permits should be shortened in order to avoid animals from dying and that the money paid for the permits should, at least partly, be given to nature conservation projects.

## RECOMMENDATIONS

In order to improve awareness and implementation of CITES provisions and EU regulations among stakeholders of the six sectors, it is necessary to organise an information campaign that is designed in accordance with the stakeholders' needs.

The following gaps have been identified as important to be addressed by such a campaign,

- Responsibility regarding information provided to customers on proper care of specimens;
- Definitions and legal obligations regarding specimens bred in captivity or artificially propagated;
- Provisions for the labelling or marking of specimens;
- Permits and certificates for international trade, trade within the EU, breeding and keeping;
- Up-to-date outcome of the EU Scientific Review Group's opinions;
- Updated species lists, including common names in all official EU languages; and
- The full legal texts of EU regulations linked to recent CITES provisions, e.g. Notifications of the CITES Secretariat.

The most efficient tool for communicating this kind of information to the stakeholders would be a website. The information needs to be presented in the 11 official languages of the EU and an exhaustive list of links, e.g. to the webites of CITES, the European Commission, Management Authorities, NGOs and other informational sources. The website should further provide a forum for people to exchange information or ask questions and an evaluation forum in order to assess the success of the campaign and to receive comments for improvement.

The existence of the website should be promoted through different methods, materials and channels. First of all, governments, NGOs, including associations/organisations/federations of traders or retailers, and individuals may be prepared to create a link from their website to the campaign website. Further, a standard poster and leaflet, and exhibition panels should be produced with short and factual information, referring to the website for detailed information. The design of all materials produced should be based on the same layout that would become a reference, easily recognised by stakeholders. For the purpose of disseminating these materials, it is very important to solicit the co-operation of national governments, commercial associations, hobbyist associations, fair organisers and publishers. These parties can provide assistance in distributing materials among their contacts, members, visitors and readers, e.g. by hanging up posters at important meeting areas, attaching leaflets to regular mailings, providing a stand for the exhibition panel at events and/or including advertisements in publications. Active approach towards the stakeholders should consist in attending important fairs, getting support through associations for the promotion of the website in their publication and writing articles for magazines. In such a way, interaction and exchange of information can be encouraged.

This targeted information campaign should be completed by an assessment of interest raised and, possibly, increased awareness of traders and retailers through answers/reactions collected via a questionnaire to be download from the website and various interviews made. Side-effects of a successful campaign should include improved and constructive communication between authorities and traders, better understanding of existing weaknesses and recommendations for future actions to improve knowledge of partners in all sectors.

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## SPECIES AND SPECIMENS IN TRADE DATA ANALYSIS

**ANNEX I**

| Category | Taxon | Common name |
|---|---|---|
| Live pets - birds | Falconiformes | Birds of prey |
| | Psittaciformes | Parrots |
| | Aves | Remaining bird species |
| Live pets - reptiles | Testudines | Turtles and tortoises |
| | Gekkonidae | Geckos |
| | Chamaeleonidae | Chameleons |
| | *Iguana* spp. | Iguanas |
| | Varanidae | Monitor lizards |
| | Serpentes | Snakes |
| | Reptilia | Remaining reptile species |
| Live pets - amphibians | Dendrobatidae | Poison frogs |
| | *Mantella* spp. | Mantella frogs |
| Live pets - fish | Acipenseriformes | Sturgeons and paddlefish |
| Live pets - insects | Lepidoptera | Butterflies |
| Live pets - scorpions and spiders | Scorpionidae | Scorpions |
| | Theraphosidae | Tarantulas |
| Live pets - corals | Scleractinia spp. | Stony corals |
| Ornamental plants | *Galanthus* spp. | Snowdrops |
| | Sternbergia spp. | Sternbergias |
| | *Pachypodium* spp. | Elephant trunks |
| | *Tillandsia* spp. | Tillandsias |
| | Cactaceae spp. | Cacti |
| | Cycadaceae spp. | Cycads |
| | *Dicksonia* spp. | Tree ferns |
| | *Aloe* spp. | Aloes |
| | Orchidaceae spp. | Orchids |
| | Cyclamen spp. | Cyclamens |
| Medicinal plants | *Rauvolfia serpentina* | Snake-root devil-pepper |
| | *Panax quinquefolius* | American ginseng |
| | *Podophyllum hexandrum* | Himalayan may-apple |
| | *Saussurea costus* | Costus |
| | *Cibotium barometz* | |
| | *Dioscorea deltoidea* | Elephant's foot |
| | *Pterocarpus santalinus* | Red sandalwood |
| | *Aloe ferox* | |
| | *Hydrastis canadensis* | |
| | *Prunus africanus* | African cherry |
| | *Picrorhiza kurrooa* | |
| | *Taxus wallichiana* | Himalayan yew |
| | *Aquilaria malaccensis* | Agarwood |
| | *Nardostachys grandiflora* | |
| | *Guaiacum officinale* | Lignum-vitae |
| | *Guaiacum sanctum* | Lignum-vitae |
| Leather | Mammalia | Mammals |
| | Crocodylia | Caimans, crocodiles and alligators |
| | Varanidae | Monitor lizards |
| | Serpentes | Snakes |
| Wool | *Vicugna vicugna* | Vicuña |
| | *Panthalops hodgsonii* | Chiru |

## TRADE DATA ANALYSIS

## ANNEX II

In order to characterise the EU's consumer role in the global trade concerning CITES-listed specimens, this annex provides the results of trade data analyses for the following animal and plans species (product) groups: birds, reptiles, amphibians, fish, insects, scorpions and spiders, corals, ornamental plants, medicinal plants, leather, fur and wool (see also Annex I). A comparison has been made with the imports by other large consumers (Japan and the USA) and by the entire world for the years from 1996 to 2000. Additionally, the roles of the individual Member States and the origin and sources of the specimens have been specified.

### Birds

*Parrots Appendix I*

The total number of CITES Appendix I live parrots imported by the EU from 1996 to 2000 was 2,179, which is about 44.0% of the global imports. Japanese and USA imports were very limited throughout the whole period. USA imports amounted to 6.2% of the global imports for 1996 to 2000, while Japanese imports represented a share of 1.0% of the global imports for the years 1996 to 1998. EU and global imports have fluctuated along the whole period 1996 to 2000 and were particularly high in 2000.

**Table 1. Numbers of CITES Appendix I parrots imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 302 | 162 | 262 | 453 | 1,000 | **2,179** |
| **JP*** | 76 | 31 | 35 | 0 | 0 | **142** |
| **US** | 70 | 57 | 73 | 61 | 46 | **307** |
| **Total world** | 799 | 822 | 773 | 1,015 | 1,539 | **4,948** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix I live parrots was Spain, which imported a total of 526 birds from 1996 to 2000 (or 24.1% of all Appendix I parrots imported by the EU). Other important EU Member States of import were Greece with 447 specimens imported (or 20.5% of the total number of specimens imported by the EU), the Netherlands with 306 specimens (or 14.0%), the UK with 269 specimens (or 12.3%) and Germany with 207 specimens (or 9.5%). Imports by Spain and Greece were particularly high in 2000. Imports by the Netherlands and the UK fluctuated throughout the period, with imports in 2000 superior to imports in 1996, while imports by Germany were decreasing.

**Table 2. Main importing EU Member States for CITES Appendix I parrots from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 92 | 25 | 8 | 126 | 275 | **526** |
| **Greece** | 10 | 1 | 1 | 3 | 432 | **447** |
| **Netherlands** | 63 | 19 | 55 | 91 | 78 | **306** |
| **UK** | 19 | 14 | 82 | 77 | 77 | **269** |
| **Germany** | 64 | 38 | 43 | 34 | 28 | **207** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin for CITES Appendix I live parrots imported by the EU from 1996 to 2000 was the Czech Republic, origin for a total of 800 birds destined for the EU (or 36.7% of all birds imported by the EU). Imports from the Czech Republic were particularly high in 2000. Other countries of origin, of secondary

importance, were the Philippines, South Africa and the USA, the origin for respectively 370, 263 and 192 specimens (respectively 17.0%, 12.0% and 8.8% of all birds imported by the EU). Overall, imports from the Czech Republic and South Africa were increasing. Imports from the Philippines showed a peak in 1999 and declined significantly in 2000. Imports from the USA also declined in 2000.

Most of the CITES Appendix I live parrots imported by the EU from 1996 to 2000 were captive-bred (93.4%). A very limited number of birds came from the wild (1.1%).

**Table 3. Main countries of origin for CITES Appendix I parrots imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Czech Republic** | 30 | 1 | 1 | 70 | 698 | **800** |
| **Philippines** | 100 | 40 | 51 | 120 | 59 | **370** |
| **South Africa** | 13 | 16 | 25 | 88 | 121 | **263** |
| **US** | 70 | 31 | 13 | 60 | 18 | **192** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Parrots Appendix II*

The total number of CITES Appendix II live parrots imported by the EU from 1996 to 2000 was 1,060,347, which represents a significant share (64.5%) of the global imports. Japanese imports were of approximately the same level as EU imports for the years 1996 and 1997, but showed a drastic decline in 1998. No import reported trade statistics were available for Japan for the years 1999 and 2000. USA imports were very restricted, representing only 0.8% of the global imports. EU imports were increasing from 1996 to 1999, but showed a slight decline in 2000. Global imports were more or less steady throughout the period.

**Table 4. Numbers of CITES Appendix II parrots imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 148,102 | 154,434 | 203,557 | 280,891 | 273,363 | **1,060,347** |
| **JP*** | 134,109 | 143,833 | 46,791 | 0 | 0 | **324,733** |
| **US** | 2,273 | 1,584 | 1,488 | 2,312 | 5,111 | **12,768** |
| **Total world** | 316,624 | 354,461 | 309,444 | 342,886 | 319,523 | **1,642,938** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix II live parrots was Spain, which imported 504,208 specimens from 1996 to 2000. This number represents 47.6% of the total number of Appendix II live parrots imported by the EU. Other main EU Member States of import included Portugal with 213,103 specimens imported (20.1% of all birds imported into the EU) and the Netherlands with 119,104 specimens (11.2%). Imports of Appendix II live parrots into these three countries were particularly high in 1999 and 2000.

**Table 5. Main importing EU Member States for CITES Appendix II parrots from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 61,319 | 77,360 | 115,963 | 125,130 | 124,436 | **504,208** |
| **Portugal** | 27,100 | 31,733 | 30,300 | 66,321 | 57,649 | **213,103** |
| **Netherlands** | 15,148 | 12,267 | 21,468 | 38,593 | 31,628 | **119,104** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

CITES Appendix II live parrots imported by the EU from 1996 to 2000 came from a great variety of countries located in different parts of the world. Two countries, however, feature as the major origin: China and South Africa. China was the origin for 200,245 specimens destined to the EU (or 18.9% of all birds imported into the EU) and South Africa was the origin for 183,818 specimens (or 17.3%). Imports from China have significantly increased throughout the period, while imports from South Africa were more steady.

Nearly half of the CITES Appendix II live parrots imported by the EU from 1996 to 2000 were captive bred (49.3%) and the other half came from the wild (48.5%). A restricted number of specimens (1.8%) originated from ranching operations.

**Table 6. Main countries of origin for CITES Appendix II parrots imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **China** | 191 | 604 | 7,100 | 94,653 | 97,697 | **200,245** |
| **South Africa** | 28,014 | 41,961 | 43,010 | 34,841 | 35,992 | **183,818** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Parrots Appendix III*

The total number of CITES Appendix III live parrots imported by the EU from 1996 to 2000 was 97,528, which represented a significant share (86.7%) of the global imports. Japanese imports were very limited in 1996 and 1997 and null in 1998. No import reported trade statistics were available for Japan for 1999 and 2000. USA imports were also restricted, representing only 2.2% of global imports. EU and global imports increased from 1996 to 1998 and declined during subsequent years. EU and global imports for 2000 were however still 3 to 4 times higher than for 1996.

**Table 7. Numbers of CITES Appendix III parrots imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 6,566 | 7,970 | 31,844 | 27,908 | 23,240 | **97,528** |
| **JP*** | 39 | 47 | 0 | 0 | 0 | **86** |
| **US** | 30 | 150 | 144 | 692 | 1,408 | **2,424** |
| **Total world** | 7,337 | 11,704 | 34,311 | 30,933 | 28,175 | **112,460** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States for CITES Appendix III live parrots were Southern European countries: Spain, Italy and Portugal. Spain imported a total of 46,631 specimens or 47.8% of all EU imports (more than twice the amount imported into Italy or Portugal). Italy and Portugal imported respectively 19,695 specimens (20.2% of all EU imports) and 19,554 specimens (20.1%). Imports of CITES Appendix III live parrots by Spain increased throughout the period, while imports by Italy and Portugal showed a peak in 1998 and a decline afterwards (a more drastic decline for Portugal).

**Table 8. Main importing EU Member States for CITES Appendix III parrots from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 290 | 1,833 | 12,901 | 15,576 | 16,031 | **46,631** |
| **Italy** | 0 | 0 | 9,836 | 5,357 | 4,502 | **19,695** |
| **Portugal** | 4,656 | 5,175 | 6,677 | 3,042 | 4 | **19,554** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The most important country of origin of CITES Appendix III live parrots imported by the EU from 1996 to 2000 was Pakistan, the origin for 68,522 specimens destined to the EU (or 70.3% of all specimens imported by the EU). Another main provider was Senegal, the origin for 21,317 specimens destined to the EU (21.9%). Imports from Pakistan have increased significantly from 1997 to 1998 and declined slightly in 2000. Imports from Senegal showed a peak in 1998 and declined significantly afterwards.

The majority of the CITES Appendix III live parrots imported by the EU from 1996 to 2000 were of unknown source (51.0%). A significant number of specimens came from the wild (41.6%) and a relatively small number was captive bred (7.4%).

**Table 9. Main countries of origin for CITES Appendix III parrots imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Pakistan** | 302 | 1,302 | 23,538 | 23,930 | 19,450 | **68,522** |
| **Senegal** | 3,809 | 5,068 | 6,803 | 2,896 | 2,741 | **21,317** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Birds of prey Appendix I*

The total number of CITES Appendix I live birds of prey imported by the EU from 1996 to 2000 was 762 specimens, which represented 24.9% of the global imports. Japanese and USA imports were more restricted and totalled 40 specimens for Japan for the years 1996 to 1998 (import reported data for Japan were missing for the years 1999 and 2000) and 71 specimens for the USA. EU imports have increased from 1996 to 1999 and decreased in 2000, while world imports showed a peak in 1997 and a steady decrease afterwards.

**Table 10. Numbers of CITES Appendix I birds of prey imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 89 | 127 | 139 | 227 | 180 | **762** |
| **JP*** | 10 | 13 | 17 | 0 | 0 | **40** |
| **US** | 7 | 6 | 6 | 19 | 33 | **71** |
| **Total world** | 263 | 1,048 | 841 | 484 | 422 | **3,058** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix I live birds of prey was Austria, which imported a total of 237 specimens during the period 1996 to 2000 (31.1% of all EU imports). Imports by Austria showed a peak in 1999 and a decrease in 2000. Germany and the UK imported respectively 178 and 143 specimens (respectively 23.4% and 18.8% of all EU imports). Imports by both countries fluctuated throughout the period.

**Table 11. Main importing EU Member States for CITES Appendix I birds of prey from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Austria** | 24 | 24 | 26 | 115 | 48 | **237** |
| **Germany** | 20 | 47 | 44 | 28 | 39 | **178** |
| **UK** | 33 | 27 | 34 | 20 | 29 | **143** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main provider of CITES Appendix I live birds of prey to the EU was Canada, the origin for 203 specimens (or 26.6% of all EU imports). Other countries of origin were Germany, the USA and Austria, the origin for respectively 136 specimens, 120 specimens and 96 specimens (respectively 17.9%, 15.8% and 12.6% of all EU

imports). Imports from Canada and the USA have fluctuated throughout the period, while imports from Germany have increased. Imports from Austria were restricted, except in 1999 when they were particularly high.

Most of the CITES Appendix I live birds of prey imported by the EU from 1996 to 2000 were captive bred (93.0%). Only 31 specimens (4.1%) came from the wild and 22 specimens were from unknown source (2.9%).

**Table 12. Main countries of origin for CITES Appendix I birds of prey imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Canada** | 20 | 46 | 45 | 50 | 42 | **203** |
| **Germany** | 12 | 27 | 19 | 38 | 40 | **136** |
| **US** | 17 | 22 | 25 | 33 | 23 | **120** |
| **Austria** | 13 | 7 | 16 | 54 | 6 | **96** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Birds of prey Appendix II*

The total number of CITES Appendix II live birds of prey imported by the EU from 1996 to 2000 was 2,605, which represented a significant share (48.3%) of the global imports. Japanese imports were somewhat higher for the years 1996 to 1998 (no import reported data were available for Japan for the years 1999 and 2000). USA imports were quite restricted and represented only 8.2% of global imports for the years 1996 to 2000. EU and world imports showed a peak in 1999 and a 15 to 20% decrease in 2000.

**Table 13. Numbers of CITES Appendix II birds of prey imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 130 | 237 | 365 | 1,033 | 840 | **2,605** |
| **JP*** | 120 | 446 | 292 | 0 | 0 | **858** |
| **US** | 100 | 77 | 29 | 51 | 186 | **443** |
| **Total world** | 491 | 1,198 | 999 | 1,464 | 1,237 | **5,389** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Spain was the main importing EU Member State for CITES Appendix II live birds of prey. This country imported, from 1996 to 2000, 844 birds, which represents 32.4% of all imports by the EU during this period. Imports by Spain showed a peak in 1999 and then a significant decrease in 2000. Other main importing EU Member States were the Netherlands, the UK and France that imported respectively 405, 360 and 308 specimens (or respectively 15.5%, 13.8% and 11.8% of all EU imports). Imports by the Netherlands have been steadily growing, while imports by the UK and France showed a peak, the UK in 1999 and France in 1998, followed by a decline.

**Table 14. Main importing EU Member States for CITES Appendix II birds of prey from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 3 | 64 | 43 | 470 | 264 | **844** |
| **Netherlands** | 0 | 4 | 26 | 124 | 251 | **405** |
| **UK** | 25 | 65 | 78 | 127 | 65 | **360** |
| **France** | 56 | 50 | 137 | 35 | 30 | **308** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin of CITES Appendix II live birds of prey imported by the EU from 1996 to 2000 was Peru, the origin for 916 specimens (35.2% of all imports by the EU). Imports from Peru have increased from 1996 to 1999 and showed a significant decline in 2000. Another important country of origin was Guinea, which provided 637 specimens to the EU (24.5% of all imports by the EU). Imports from Guinea have steadily increased throughout the period.

Three quarters (75.5%) of the CITES Appendix II live birds of prey imported by the EU from 1996 to 2000 came from the wild, while 19.6% was captive bred.

**Table 15. Main countries of origin for CITES Appendix II birds of prey imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Peru** | 0 | 51 | 46 | 463 | 356 | **916** |
| **Guinea** | 0 | 36 | 88 | 181 | 332 | **637** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Birds of prey Appendix III*

Only three CITES Appendix III live birds of prey were imported by the EU from 1996 to 2000: two wild specimens from Suriname were imported by Austria in 1996 for zoo purposes and one captive bred specimen from the USA was imported by Germany in 1998 for zoo purposes as well. No specimens were imported by Japan or the USA during this period. Only a total of seven specimens were imported worldwide.

*Other birds Appendix I*

The number of CITES Appendix I live birds imported by the EU from 1996 to 2000 was restricted and totalled 677 specimens. The figures show that there was a steady upward trend for the import of these specimens by the EU from 1996 to 2000 (the number of specimens imported in 2000 was more than two times higher than the number for 1996) . USA and Japanese imports of these specimens were rather limited compared to EU imports. Japanese imports were non existent for 1999 and 2000, years for which no import reported data were available. EU imports represented 23.1% of world imports (2,936 live birds) from 1996 to 2000.

**Table 16. Numbers of CITES Appendix I birds imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 97 | 106 | 108 | 160 | 206 | **677** |
| **JP*** | 42 | 26 | 43 | 0 | 0 | **111** |
| **US** | 38 | 19 | 5 | 15 | 16 | **93** |
| **Total world** | 933 | 525 | 534 | 525 | 419 | **2,936** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix I live birds was the Netherlands, which imported 245 birds (or 36.2% of all EU imports). Second was the UK with 124 birds (18.3%), followed by Belgium with 89 birds (13.2%). For all three countries the import of Appendix I live birds showed a peak in the year 2000.

**Table 17. Main importing EU Member States for CITES Appendix I birds from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 38 | 45 | 53 | 54 | 55 | **245** |
| **UK** | 41 | 0 | 0 | 32 | 51 | **124** |
| **Belgium** | 3 | 14 | 25 | 16 | 31 | **89** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The countries of origin of CITES Appendix I live birds imported by the EU from 1996 to 2000 were quite diverse. Two Southeast Asian countries (Singapore and the Philippines) and two North American countries (Canada and the US) featured as the main providers. Singapore was the country of origin for 135 live birds imported by the EU from 1996 to 2000 (19.9% of all EU imports), the Philippines of 97 birds (14.3%), Canada of 88 birds (13.0%) and the USA of 84 birds (12.4%). The number of birds imported by the EU from those four countries varied throughout the years and has steadily increased for Singapore and the USA.

Nearly all CITES Appendix I live birds imported by the EU from 1996 to 2000 were captive bred (99.1%). Three specimens came from unknown source and three specimens were of wild origin (one destined for zoo and two for breeding purposes).

**Table 18. Main countries of origin for CITES Appendix I birds imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Singapore** | 0 | 29 | 36 | 23 | 47 | **135** |
| **Philippines** | 0 | 0 | 20 | 44 | 33 | **97** |
| **Canada** | 24 | 30 | 13 | 21 | 0 | **88** |
| **US** | 1 | 9 | 9 | 22 | 43 | **84** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Other birds Appendix II*

A total of 252,749 CITES Appendix II live birds were imported by the EU from 1996 to 2000, which represented a significant share (60.4%) of global imports. EU imports have increased from 1996 to 1999 and showed a sudden significant decrease in 2000. USA imports were restricted in comparison to EU imports and represented only 2.7% of global imports. Japanese imports were, on the contrary, quite important, at least for the years 1996 to 1998 (Japanese import reported data were missing for 1999 and 2000), reaching 44.7% of world imports for this three-year period (while EU imports for 1996 to 1998 amounted only to 42.3% of world imports).

**Table 19. Numbers of CITES Appendix II birds imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 2,132 | 48,720 | 49,996 | 106,981 | 44,920 | **252,749** |
| **JP*** | 912 | 35,202 | 70,458 | 0 | 0 | **106,572** |
| **US** | 174 | 7,743 | 1,657 | 324 | 1,256 | **11,154** |
| **Total world** | 4,765 | 97,677 | 135,793 | 123,623 | 56,633 | **418,491** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States for CITES Appendix II live birds were the Netherlands with a total of 79,051 birds imported from 1996 to 2000 (or 31.3% of all EU imports), Spain with 53,968 birds (or 21.4%) and

Portugal with 31,486 birds (or 12.5%). Volumes of import by these three countries have fluctuated along with the global and EU imports: an increase from 1996 to 1999 and a sudden significant decrease in 2000. Portugal however showed an important peak in 1997, more than four times the import number for 1999.

**Table 20. Main importing EU Member States for CITES Appendix II birds from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Netherlands | 754 | 10,104 | 15,343 | 38,280 | 14,570 | **79,051** |
| Spain | 154 | 3,671 | 13,849 | 29,714 | 6,580 | **53,968** |
| Portugal | 44 | 21,111 | 1,877 | 4,564 | 3,890 | **31,486** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

China was the main provider of CITES Appendix II live birds to the EU from 1996 to 2000. During that period, 155,364 birds from Chinese origin where imported by the EU, which represented 61.5% of all EU imports. Imports from China have increased from 1996 to 1999 and showed a dramatic decrease in 2000. Other countries of origin were Viet Nam (origin of 9.0% of all EU imports), Hong Kong (8.1%) and Malaysia (6.5%), all located in Asia.

Most of the CITES Appendix II live birds imported by the EU from 1996 to 2000 were of wild origin (85.5%). A relatively small number, 33,468 specimens (13.2 %), was captive bred, while 984 specimens (0.4%) came from ranching operations and 2,223 specimens (0.9%) were from unknown source.

**Table 21. Main countries of origin for CITES Appendix II birds imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **China** | 0 | 21,380 | 33,551 | 82,465 | 17,968 | **155,364** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Other birds Appendix III*

The figures clearly show that the EU had a world leading position regarding imports of CITES Appendix III live birds from 1996 to 2000. Imports by the EU totalled 3,116,402 and represented 93.9% of all world imports. USA and Japanese imports were negligible in comparison with EU and world imports. EU imports (and global imports) increased from 1996 to 1998 and then slightly decreased from 1998 to 2000.

**Table 22. Numbers of CITES Appendix III birds imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 230,165 | 288,520 | 894,218 | 861,913 | 841,586 | **3,116,402** |
| **JP*** | 986 | 17 | 502 | 0 | 0 | **1,505** |
| **US** | 1,260 | 1,222 | 250 | 170 | 847 | **3,749** |
| **Total world** | 296,253 | 309,964 | 942,970 | 902,718 | 867,114 | **3,319,019** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix III live birds for the period 1996 to 2000 was Belgium, which imported a total of 819,942 birds or 26.3% of all EU imports. The second main importing EU Member State was Portugal, which imported 734,871 birds or 23.6% of all EU imports. Other importing EU Member States included the Netherlands (15.8% of all EU imports), Italy (13.7%), Germany (10.1%) and Spain

(9.8%). Imports were generally increasing throughout the period for all the countries concerned, except for Portugal which imports equalled nearly zero for the year 2000.

**Table 23. Main importing EU Member States for CITES Appendix III birds from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Belgium** | 1,997 | 12,417 | 258,220 | 262,764 | 284,544 | **819,942** |
| **Portugal** | 143,549 | 168,509 | 222,604 | 200,140 | 69 | **734,871** |
| **Netherlands** | 848 | 2,420 | 142,641 | 121,294 | 226,169 | **493,372** |
| **Italy** | 0 | 0 | 125,730 | 139,105 | 163,477 | **428,312** |
| **Germany** | 62,169 | 61,712 | 62,727 | 68,326 | 59,388 | **314,322** |
| **Spain** | 10,530 | 41,600 | 82,068 | 64,742 | 107,806 | **306,746** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The three most important countries of origin of CITES Appendix III live birds imported by the EU were located in Western Africa: Senegal, Mali and Guinea. Senegal provided the EU with more than one million Appendix III birds, which represents 32.4% of all EU imports. Mali and Guinea were the origin for respectively 968,821 and 918,103 Appendix III birds imported by the EU from 1996 to 2000, which represented 31.1% and 29.5% of the total EU imports. Imports from Senegal showed a peak in 1998 and decreased significantly afterwards. Imports from Mali and Guinea also showed a significant increase in 1998, but either increased again in 2000 (Mali) or slightly decreased in 2000 (Guinea).

Most of the CITES Appendix III live birds imported by the EU from 1996 to 2000 were of wild origin (68.8%). A significant number of birds (961,269 specimens or 30.8% of the total number of birds) were from unknown source. Only 11,511 specimens (0.47%) were bred in captivity.

**Table 24. Main countries of origin for CITES Appendix III birds imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Senegal** | 131,149 | 150,983 | 322,244 | 239,023 | 165,882 | **1,009,281** |
| **Mali** | 14,800 | 31,189 | 273,782 | 269,130 | 379,920 | **968,821** |
| **Guinea** | 53,497 | 72,595 | 251,189 | 297,913 | 242,909 | **918,103** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Reptiles

*Turtles and tortoises Appendix I*

The total number of CITES Appendix I live turtles and tortoises imported by the EU from 1996 to 2000 was 57, which is about 4.2% of global imports. Japanese imports were very limited and represented only 0.9% of global imports from 1996 to 1998, while EU imports represented 4.6% of global imports for this three-year period. USA imports were more important and totalled 272 specimens. EU, USA and world imports were particularly low for the years 1999 and 2000.

**Table 25. Numbers of CITES Appendix I turtles and tortoises imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 9 | 39 | 7 | 0 | 2 | **57** |
| **JP*** | 0 | 11 | 0 | 0 | 0 | **11** |
| **US** | 10 | 223 | 34 | 5 | 0 | **272** |
| **Total world** | 352 | 352 | 488 | 147 | 32 | **1371** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix I live turtles and tortoises from 1996 to 2000 was the UK, which imported 29 specimens (50.9% of all EU imports). The other importing EU Member States were Spain and Portugal that imported 9 specimens each. The main countries of origin of CITES Appendix I live turtles and tortoises imported by the EU from 1996 to 2000 were two European countries: Belgium was the origin for 12 specimens and Switzerland for 11 specimens. Most of the CITES Appendix I live turtles and tortoises imported by the EU from 1996 to 2000 were of unknown source (41 specimens or 71.9%). The remaining specimens (28.1%) were captive bred.

*Turtles and tortoises Appendix II*

The total number of CITES Appendix II live turtles and tortoises imported by the EU from 1996 to 2000 was 77,734, which represented 21.7% of global imports. Japanese imports were more important than EU imports and totalled, for the years from 1996 to 1998, 87,749 specimens (or 43.5% of global imports for that three-year period). EU imports for the years from 1996 to 1998 represented 22.2% of global imports. USA imports were also more important than EU imports and reached 31.0% of global imports. USA and global imports generally incrased with the highest numbers in 2000. Japanese imports remained steady from 1996 to 1998, while EU imports increased from 1996 to 1998 and decreased subsequently.

**Table 26. Numbers of CITES Appendix II turtles and tortoises imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 6,081 | 11,880 | 26,809 | 19,525 | 13,439 | **77,734** |
| **JP*** | 25,772 | 31,812 | 30,165 | 0 | 0 | **87,749** |
| **US** | 13,445 | 19,494 | 14,996 | 23,895 | 39,354 | **111,184** |
| **Total world** | 51,292 | 71,127 | 79,398 | 49,819 | 106,628 | **358,264** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States for CITES Appendix II live turtles and tortoises were France, which imported 20,587 specimens (or 26.5% of all EU imports), Germany with 16,203 specimens (or 20.8%), Spain

with 12,128 specimens (or 15.6%) and the UK with 11,807 specimens (or 15.2%). Imports by France increased from 1996 to 1998 and decreased during subsequent years. German imports increased significantly in 1998 and 1999 and decreased in 2000. Spanish imports increased significantly in 1998 and decreased during subsequent years. Imports to the UK followed a similar pattern except for the year 2000 for which imports were very low.

**Table 27. Main importing EU Member States for CITES Appendix II turtles and tortoises from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **France** | 3,533 | 4,245 | 6,462 | 2,987 | 3,360 | **20,587** |
| **Germany** | 720 | 674 | 3,465 | 6,893 | 4,451 | **16,203** |
| **Spain** | 497 | 1,689 | 4,951 | 2,452 | 2,539 | **12,128** |
| **UK** | 345 | 899 | 5,562 | 3,922 | 1,079 | **11,807** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The countries of origin of the CITES Appendix II live turtles and tortoises imported by the EU from 1996 to 2000 were numerous and of varied location. However, the three countries that provided the largest number of specimens were Uzbekistan with 14,578 specimens (or 18.8% of all EU imports), Zambia with 14,514 specimens (or 18.7%) and Togo with 9,152 specimens (or 11.8%). Imports from Uzbekistan were zero in 1996 and 1997, at the highest in 1998 and subsequently decreased. Imports from Zambia were continuously increasing, except in 2000 when they were zero. Imports from Togo were overall increasing (exception made for 1999) and more significantly in 2000.

More than the half of the CITES Appendix II live turtles and tortoise imported by the EU from 1996 to 2000 were of wild origin (62.0%). The remaining specimens were captive bred (18.5%) and originated from ranching operations (14.0%).

**Table 28. Main countries of origin for CITES Appendix II turtles and tortoises imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Uzbekistan** | 0 | 0 | 7,078 | 5,500 | 2,000 | **14,578** |
| **Zambia** | 1,210 | 2,668 | 4,996 | 5,640 | 0 | **14,514** |
| **Togo** | 253 | 1,685 | 2,022 | 941 | 4,251 | **9,152** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Turtles and tortoises Appendix III*

The total number of CITES Appendix III turtles and tortoises imported by the EU from 1996 to 2000 was 7,359, which represented 32.3% of global imports. Japanese imports were more restricted than EU imports for the years 1996 to 1998. Imports by Japan reached 12.2% of global imports from 1996 to 1998, while imports by the EU reached 23.6% of global imports for the same three-year period). USA imports were superior to EU imports and represented 54.9% of global imports. EU imports were at the highest in 1999 and 2000, while US and global imports fluctuated throughout the period.

**Table 29. Numbers of CITES Appendix III turtles and tortoises imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 1,223 | 482 | 1,408 | 2,148 | 2,098 | **7,359** |
| JP* | 1,310 | 0 | 395 | 0 | 0 | **1,705** |
| US | 2,729 | 3,342 | 1,395 | 2,929 | 2,096 | **12,491** |
| Total world | 5,940 | 3,854 | 3,382 | 5,207 | 4,387 | **22,770** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main importing EU Member States of CITES Appendix III live turtles and tortoises from 1996 to 2000 were Spain and Italy. Spain imported 2,797 specimens (or 38% of all EU imports) and Italy imported 2,153 specimens (or 29,26%). Imports by Spain fluctuated throughout the period while imports by Italy were zero in 1996 and 1997 and at the highest in 2000.

**Table 30. Main importing EU Member States for CITES Appendix III turtles and tortoises from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Spain | 732 | 285 | 469 | 961 | 350 | **2,797** |
| Italy | 0 | 0 | 503 | 350 | 1,300 | **2,153** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main countries of origin of CITES Appendix III live turtles and tortoises imported bythe EU from 1996 to 2000 were located in Western Africa: Togo and Ghana. Togo was the origin for 3,635 specimens (49.4% of all EU imports) and Ghana was the origin for 3,379 specimens (45.9%). Imports from Togo were generally increasing, while imports from Ghana were at the highest in 1999 and decreased significantly in 2000.

More than half of the CITES Appendix III live turtles and tortoises imported by the EU from 1996 to 2000 came from the wild (64.2%). A few specimens came from ranching operations (3.4%). All other specimens were from unknown source.

**Table 31. Main countries of origin for CITES Appendix III turtles and tortoises imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Togo | 381 | 50 | 967 | 737 | 1500 | **3,635** |
| Ghana | 842 | 258 | 308 | 1,411 | 560 | **3,379** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Geckos Appendix II*

The total number of live geckos imported by the EU from 1996 to 2000 was 83,297, which represents 38.1% of the global imports. Japanese imports were very limited compared to EU imports, amounting only to 4.6% of global imports from 1996 to 1998, while EU imports totalled 37.4% of global imports for that same three-year period. USA imports were more important than EU imports and represented 50.9% of global imports. However, the difference between imports to the USA and imports to the EU diminished along the years in such a way that, for the year 2000, EU imports became higher than USA imports. EU (and global) imports of live geckos showed a peak in 1998 and a significant decline for the subsequent years. USA imports have also significantly declined in 1999 and 2000.

**Table 32. Numbers of CITES Appendix II geckos imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 19,310 | 20,048 | 27,079 | 9,512 | 7,348 | 83,297 |
| JP* | 1,600 | 3,111 | 3,462 | 0 | 0 | 8,173 |
| US | 37,904 | 27,312 | 31,394 | 12,072 | 2,405 | 111,087 |
| Total world | 60,756 | 51,774 | 64,929 | 22,517 | 18,463 | 218,439 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of live geckos from 1996 to 2000 was Germany, which imported a total of 31,764 specimens (38.1% of all EU imports). Imports of live geckos by Germany showed a peak in 1998 and a subsequent decline, in such a way that levels of import after 1998 were more or less the same as those before 1998. Other importing EU Member States were the Netherlands, which imported 19,946 specimens (or 23.9% of all EU imports), and Belgium, which imported 12,955 specimens (or 15.6%).

**Table 33. Main importing EU Member States for CITES Appendix II geckos from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 5,316 | 5,693 | 10,530 | 4,743 | 5,482 | **31,764** |
| **Netherlands** | 5,248 | 5,805 | 6,992 | 1,270 | 631 | **19,946** |
| **Belgium** | 2,729 | 2,900 | 3,950 | 2,505 | 871 | **12,955** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Madagascar was the most important and nearly exclusive country of origin of live geckos imported by the EU from 1996 to 2000. Madagascar was the origin for 79,021 live geckos imported by the EU, which represented 94.9% of all EU imports). Imports from Madagascar showed a peak in 1998 and a subsequent significant decline in 1999 and 2000. No imports of live geckos from the Comoros were reported from 1996 to 1999. However, in the year 2000, 3,799 specimens were imported from this country by the EU, which represents 4.6% of all EU imports.

Nearly all (99.6%) live geckos imported by the EU from 1996 to 2000 came from the wild. A very small quantity of specimens (43) originating from the Czech Republic were bred in captivity.

**Table 34. Main countries of origin for CITES Appendix II geckos imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Madagascar** | 19,280 | 19,812 | 27,018 | 9,414 | 3,497 | **79,021** |
| **Comoros** | 0 | 0 | 0 | 0 | 3799 | **3799** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Chameleons Appendix II*

The total number of CITES Appendix II live chameleons imported by the EU from 1996 to 2000 was 97,253 specimens, which represented 30.5% of the global imports. USA imports of live chameleons were approximately two times higher than EU imports, totalling 59.9% of global imports. Japanese imports were limited: a total of 18,724 live chameleons were imported from 1996 to 1998, which is 9.0% of the global imports for this three-year period. EU imports showed a peak in 1998 and then a decrease in 1999 and 2000. USA imports, along with global imports, fluctuated throughout the period, but imports in 2000 were lower than in 1996.

**Table 35. Numbers of CITES Appendix II chameleons imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 13,577 | 16,661 | 26,461 | 22,666 | 17,888 | **97,253** |
| JP* | 3,636 | 7,018 | 8,070 | 0 | 0 | **18,724** |
| US | 49,928 | 37,532 | 38,730 | 30,206 | 34,419 | **190,815** |
| Total world | 68,506 | 62,184 | 76,704 | 55,180 | 56,057 | **318,631** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix II live chameleons was Belgium, which imported 21,829 specimens from 1996 to 2000 (22.4% of all EU imports). Other importing EU Member States were Spain (17,894 specimens or 18.4% of EU imports), Germany (15,911 specimens or 16.4% of EU imports), France (13,824 specimens or 14.2% of EU imports) and the Netherlands (12,207 specimens or 12.6% of EU imports). Imports of live chameleons into all these countries showed a peak either in 1998 (Belgium, Spain, the Netherlands) or in 1999 (Germany and France) and then a subsequent decrease.

**Table 36. Main importing EU Member States for CITES Appendix II chameleons from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Belgium | 4,488 | 4,260 | 5,058 | 4,554 | 3,469 | **21,829** |
| Spain | 1,277 | 2,997 | 6,547 | 4,599 | 2,474 | **17,894** |
| Germany | 0 | 1,763 | 4,899 | 5,320 | 3,929 | **15,911** |
| France | 1,387 | 2,363 | 3,204 | 3,534 | 3,336 | **13,824** |
| Netherlands | 1,817 | 2,356 | 3,846 | 2,597 | 1,591 | **12,207** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main countries of origin of CITES Appendix II live chameleons imported by the EU were all located in Sub-Saharan Africa: Tanzania, Madagascar, Togo and Cameroon. The highest number of live chameleons imported by the EU from 1996 to 2000 came from Tanzania: 27,427 specimens (28.2% of all EU imports) were imported from that country during this five-year period. Another important country of origin was Madagascar, the origin for 22,289 specimens (22.9% of all EU imports). Togo and Cameroon were the origin for respectively 18,658 specimens (19.2%) and 11,627 specimens (12.0%) imported by the EU. Imports from Tanzania and Madagascar showed a peak in 1998 and then a subsequent decrease, while imports from Togo were continuously increasing throughout the five-year period. Imports from Cameroon were increasing from 1996 to 1999 and abruptly decreasing in 2000.

Most of the CITES Appendix II live chameleons imported by the EU from 1996 to 2000 were of wild source (83.4%). A small percentage of chameleons came from ranching operations (10.2%) and an even smaller percentage consisted of captive bred specimens (6.2%).

**Table 37. Main countries of origin for CITES Appendix II chameleons imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Tanzania | 2,989 | 3,086 | 7,692 | 7,521 | 6,139 | **27,427** |
| Madagascar | 4,162 | 5,077 | 8,412 | 3,031 | 1,607 | **22,289** |
| Togo | 2,947 | 2,945 | 3,623 | 3,941 | 5,202 | **18,658** |
| Cameroon | 2,097 | 2,508 | 3,069 | 3,588 | 365 | **11,627** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Iguanas Appendix II*

The total number of CITES Appendix II live iguanas imported by the EU from 1996 to 2000 was 533,082, which represented 14.9% of global imports. USA imports were much higher than EU imports, totalling 2,731,753 specimens or 76.3% of global imports. Japanese imports were limited and about three times lower than EU imports for the years 1996 to 1998, representing only 3.8% of global imports for this three-year period. EU imports of live iguanas were continuously growing from 1996 to 2000, while USA and world imports were declining from 1996 to 1998 and remained steady in 1999 and 2000.

**Table 38. Numbers of CITES Appendix II iguanas imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 82,978 | 96,456 | 109,115 | 112,640 | 131,893 | **533,082** |
| **JP*** | 36,985 | 35,598 | 21,316 | 0 | 0 | **93,899** |
| **US** | 931,861 | 598,323 | 385,452 | 400,903 | 415,214 | **2,731,753** |
| **Total world** | 1,124,681 | 791,362 | 553,360 | 547,851 | 563,935 | **3,581,189** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Spain was the major importing EU Member State of live iguanas from 1996 to 2000. A total of 230,413 specimens were imported by that country, which represented 43.2% of all EU imports. Other EU destinations of secondary importance were Germany with 71,126 specimens (13.3% of all EU imports), Belgium with 54,205 specimens (10.2%) and Italy with 47,960 specimens (9.0%). Imports into these four countries were generally increasing (imports in 2000 were superior to those in 1996). This was particularly the case for Spain and Italy where imports in 2000 were nearly three times higher than in 1996.

**Table 39. Main importing EU Member States for CITES Appendix II iguanas from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 22,186 | 39,850 | 55,943 | 50,803 | 61,631 | **230,413** |
| **Germany** | 15,000 | 10,881 | 13,787 | 15,305 | 16,153 | **71,126** |
| **Belgium** | 8,340 | 13,785 | 8,955 | 12,000 | 11,125 | **54,205** |
| **Italy** | 8,011 | 5,900 | 4,513 | 7,950 | 21,586 | **47,960** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The countries of origin of the live iguanas imported by the EU from 1996 to 2000 were all located in Central or South America. The most important provider of live iguanas to the EU was El Salvador, the origin for 257,792 specimens, which represented 48.4% of all EU imports. Colombia and Guatemala featured also as important countries of origin with respectively 103,400 specimens and 94,258 specimens (respectively 19.4% and 17.7 % of all EU imports). Imports from El Salvador were continuously growing (imports from El Salvador in 2000 were five times higher than those in 1996), while imports from Colombia and Guatemala have fluctuated throughout the period.

Most of the live iguanas imported by the EU (90.7%) were captive bred. Another 8.8% came from the wild. A very small number of specimens (0.3%) originated from ranching operations.

**Table 40. Main countries of origin for CITES Appendix II iguanas imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **El Salvador** | 20,682 | 37,959 | 45,879 | 49,539 | 103,733 | **257,792** |
| **Colombia** | 36,912 | 21,056 | 12,790 | 25,504 | 7,138 | **103,400** |
| **Guatemala** | 4,101 | 19,384 | 28,741 | 26,101 | 15,931 | **94,258** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Monitors Appendix I*

The number of CITES Appendix I live monitors imported by the EU from 1996 to 2000 was 12, which represented about 32.4% of the global imports (37 specimens). Japan did not import any specimen from 1996 to 1998 (no import reported trade data for Japan were available for the years 1999 and 2000). USA imports totalled 4 specimens. The importing EU Member States of CITES Appendix I live monitors from 1996 to 2000 were varied: Belgium (6 specimens imported), Portugal (3 specimens), France (2 specimens) and the UK (1 specimen). There were only two countries that provided CITES Appendix I live monitors to the EU: Indonesia (10 specimens) and the USA (2 specimens). Half (50%) of the CITES Appendix I live monitors imported by the EU from 1996 to 2000 were of wild origin (trade purpose, country of origin was Indonesia) and half (50%) was captive bred (zoo purpose).

*Monitors Appendix II*

The total number of CITES Appendix II live monitors imported by the EU from 1996 to 2000 was 32,991, which represents 11.7% of the global imports. Japanese imports were more restricted than EU imports and totalled 8,706 specimens or 4.9% of the global imports for the period 1996 to 1998 (while EU imports for that same three-year period represented 12.0% of the global imports). USA imports were much more significant than EU imports: 204,416 specimens were imported by the US from 1996 to 2000, which represented 72.2% of the global imports. World and EU imports generally decreased. US imports decreased from 1996 to 1998 and increased again during subsequent years.

**Table 41. Numbers of CITES Appendix II monitors imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 8,320 | 5,727 | 7,510 | 6,454 | 4,980 | **32,991** |
| **JP*** | 2,328 | 2,184 | 4,194 | 0 | 0 | **8,706** |
| **US** | 54,085 | 43,339 | 34,476 | 35,738 | 36,778 | **204,416** |
| **Total world** | 66,614 | 52,402 | 60,351 | 54,813 | 48,925 | **283,105** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix II live monitors from 1996 to 2000 was Germany that imported 7,078 specimens (or 21.5% of all EU imports). Spain, the UK and France also featured as significant importers of Appendix II live monitors with 6,192 specimens imported by Spain (18.8% of all EU imports), 5,959 specimens imported by the UK (18.1%) and 5,528 specimens imported by France (16.8%). German imports were high from 1998 to 2000, Spanish imports reached a peak in 1998 and decreased significantly afterwards, UK imports reached a peak in 1996 and were significantly lower in subsequent years and French imports varied throughout the period.

**Table 42. Main importing EU Member States for CITES Appendix II monitors from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 754 | 1,121 | 1,945 | 1,604 | 1,654 | **7,078** |
| **Spain** | 1,221 | 1,483 | 1,775 | 1,273 | 440 | **6,192** |
| **UK** | 2,369 | 992 | 840 | 958 | 800 | **5,959** |
| **France** | 1,222 | 690 | 1,545 | 986 | 1,085 | **5,528** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main countries of origin of CITES Appendix II live monitors imported by the EU from 1996 to 2000 were Ghana and Togo, both located in Western Africa. Ghana was the origin for 16,142 specimens imported by the EU (or 48.9% of all EU imports) and Togo was the origin for 8,709 specimens imported by the EU (or 26.5%). Imports from Ghana increased from 1997 to 1999 and declined in 2000, while imports from Togo fluctuated throughout the period and showed a significant decline in 2000.

The vast majority of CITES Appendix II monitors imported by the EU from 1996 to 2000 were wild specimens (89.0%). A restricted number of specimens came from ranching operations (9.1%) and an even smaller number was captive bred (0.9%).

**Table 43. Main countries of origin for CITES Appendix II monitors imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Ghana** | 3,323 | 2,978 | 3,573 | 3,770 | 2,498 | **16,142** |
| **Togo** | 2,377 | 1,502 | 2,578 | 1,315 | 937 | **8,709** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Snakes Appendix I*

The total number of CITES Appendix I live snakes imported by the EU from 1996 to 2000 was very low and totalled 39 specimens only (or 7.2% of the global imports). Japanese imports were even more restricted than EU imports and limited to 2 specimens. USA imports were more important with 288 specimens reaching 57.7% of the global imports.

**Table 44. Numbers of CITES Appendix I snakes imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 17 | 8 | 3 | 1 | 10 | 39 |
| **JP*** | 2 | 0 | 0 | 0 | 0 | 2 |
| **US** | 74 | 208 | 6 | 0 | 0 | 288 |
| **Total world** | 128 | 274 | 64 | 51 | 19 | 536 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main EU importing countries of CITES Appendix I live snakes for the years 1996 to 2000 were the UK and Denmark. The first imported 14 specimens and the latter 12 specimens. The main countries of origin were all European countries: the UK with 12 specimens, Germany with 11 specimens and Switzerland with 8 specimens. All specimens were captive bred except for one specimen of unknown source.

*Snakes Appendix II*

The total number of CITES Appendix II live snakes imported by the EU from 1996 to 2000 was 155,932 specimens or 15.1% of the global imports. Japanese imports were more restricted than EU imports reaching only 3.3% of the global imports for the years 1996 to 1998 (while EU imports represented 12.3% of global imports for this three-year period). USA imports were, on the contrary, much larger than EU imports and totalled 732,414 specimens or 71.0% of the global imports. EU imports increased throughout the period, except in 2000 when they showed a slight decline. USA and global imports were more or less steady along the years.

**Table 45. Numbers of CITES Appendix II snakes imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 22,038 | 22,477 | 30,040 | 42,321 | 39,056 | **155,932** |
| **JP*** | 5,705 | 6,199 | 7,943 | 0 | 0 | **19,847** |
| **US** | 150,955 | 151,302 | 135,729 | 150,230 | 144,198 | **732,414** |
| **Total world** | 202,438 | 206,478 | 197,550 | 215,504 | 210,081 | **1,032,051** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States of CITES Appendix II live snakes were France, which imported 35,300 specimens, and Germany, which imported 34,113 specimens, from 1996 to 2000. These numbers represented respectively 22.6% and 21.9% of all EU imports. Spain imported 25,637 specimens (or 16.4% of all EU imports) and Belgium imported 21,321 specimens (or 13.7%). Imports by Germany increased rapidly and significantly from 1996 to 2000. Imports by Spain follow the same pattern, except for the year 2000 when there was a significant decline. Imports by France also increased throughout the period, although not so significantly as for Germany and Spain, and declined in 2000. Imports by Belgium showed a peak in 1999 and a decline in 2000.

**Table 46. Main importing EU Member States for CITES Appendix II snakes from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **France** | 5,606 | 6,642 | 6,880 | 8,622 | 7,550 | **35,300** |
| **Germany** | 3,521 | 4,083 | 5,886 | 8,602 | 12,021 | **34,113** |
| **Spain** | 1,634 | 4,279 | 5,649 | 9,791 | 4,284 | **25,637** |
| **Belgium** | 2,797 | 2,507 | 2,240 | 7,751 | 6,026 | **21,321** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The most important countries of origin for CITES Appendix II live snakes imported by the EU from 1996 to 2000 were located in Western Africa: Ghana, Togo and Benin. Ghana was the main provider and the origin for 47,571 specimens destined to the EU (or 30.6% of all EU imports). Togo was the origin for 27,681 specimens (or 17.8%) and Benin was the origin for 22,192 specimens (or 14.2%). The Czech Republic also featured as a major country of origin for Appendix II live snakes destined for the EU, with 13,699 specimens (or 8.8%). Imports from all four countries of origin generally increased from 1996 to 2000 (imports for 2000 were significantly higher than imports for 1996).

Most CITES Appendix II live snakes imported by the EU from 1996 to 2000 were of wild origin (38.6%), while almost a similar quantity came from ranching operations (36.5%) and some were captive bred (24.5%).

**Table 47. Main countries of origin for CITES Appendix II snakes imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Ghana** | 3,871 | 4,308 | 12,332 | 15,996 | 11,064 | **47,571** |
| **Togo** | 4,326 | 4,733 | 3,260 | 6,310 | 9,052 | **27,681** |
| **Benin** | 1,202 | 3,325 | 3,660 | 6,087 | 7,918 | **22,192** |
| **Czech Rep.** | 2,277 | 1,768 | 2,392 | 3,401 | 3,861 | **13,699** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Snakes Appendix III*

The total number of CITES Appendix III live snakes imported by the EU from 1996 to 2000 was very restricted, amounting to 206 specimens, which represented 1.6% of the global imports. Japanese imports were zero from 1996 to 1998. USA imports were somewhat higher than EU imports and reached 3.0% of global imports. EU and USA imports generally increased (imports were higher in 2000 than in 1996). World imports were very high in 1996 and 1997 and low for the other years. The main importing country of Appendix III live snakes worldwide was China.

**Table 48. Numbers of CITES Appendix III snakes imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 37 | 17 | 53 | 33 | 66 | **206** |
| **JP*** | 0 | 0 | 0 | 0 | 0 | **0** |
| **US** | 12 | 46 | 141 | 83 | 113 | **395** |
| **Total world** | 4,063 | 8,067 | 210 | 157 | 818 | **13,315** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix III live snakes from 1996 to 2000 was Germany, which imported 153 specimens (or 74.3% of all EU imports). The three main countries of origin were Costa Rica, which provided 70 specimens to the EU (34.0% of all EU imports), the USA with 58 specimens (28.2%) and Indonesia with 40 specimens (19.4%). The majority of the specimens were of wild origin (65.1%). Nearly a third of the specimens were captive bred (31.5%).

*Other reptiles Appendix I*

The number of CITES Appendix I reptiles imported by the EU from 1996 to 2000 was very restricted compared to global imports. Only 874 specimens were imported by the EU, which represented 1.1% of the world imports. Japanese and USA were even more restricted and totalled only a few specimens. China was the most important importer of Appendix I live reptiles worldwide, reaching 90.5% of the global share.

**Table 49. Numbers of CITES Appendix I reptiles imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 16 | 312 | 299 | 83 | 164 | **874** |
| **JP*** | 0 | 4 | 20 | 0 | 0 | **24** |
| **US** | 21 | 30 | 4 | 4 | 1 | **60** |
| **Total world** | 107 | 3,631 | 7,794 | 33,313 | 34,977 | **79,822** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States of CITES Appendix I live reptiles from 1996 to 2000 were Spain, France and Denmark. Spain imported 467 specimens, which is more than half (53.4%) of all EU imports. France imported a total of 212 specimens (or 24.3%) and Denmark imported 140 specimens (or 16.0%). Imports by Spain and France fluctuated throughout the period with a peak in 1997 for Spain and in 1998 for France. Imports by Denmark were more steady.

**Table 50. Main importing EU Member States for CITES Appendix I reptiles from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 2 | 266 | 45 | 54 | 100 | **467** |
| **France** | 0 | 3 | 203 | 0 | 6 | **212** |
| **Denmark** | 5 | 26 | 36 | 23 | 50 | **140** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The most important country of origin of CITES Appendix I live reptiles imported by the EU from 1996 to 2000 was Namibia, the origin for 476 specimens, representing 54.5% of all EU imports. Another important country of origin was Mexico with a total of 120 specimens (or 13,73% of all EU imports). Imports from Namibia were high in 1997 and 1998 and low for the other years. Imports from Mexico were null for the years 1996 to 1998 and high in 2000.

Most of the CITES Appendix I live reptiles imported by the EU from 1996 to 2000 were bred in captivity (96.5%). A small number of specimens was of unknown source (3.6%).

**Table 51. Main countries of origin for CITES Appendix I reptiles imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Namibia** | 0 | 266 | 200 | 10 | 0 | **476** |
| **Mexico** | 0 | 0 | 0 | 20 | 100 | **120** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Other reptiles Appendix II*

The total number of CITES Appendix II live reptiles imported by the EU from 1996 to 2000 was 37,535, which represented 15.7% of the global imports. Japanese imports were more restricted than EU imports and represented only 8.6% of the global imports for the years 1996 to 1998 (while EU imports totalled 17.2% of the global imports for this three-year period). USA imports of Appendix II live reptiles were voluminous and more than 4 times higher than EU imports, reaching 65.9% of the global imports. EU and global imports fluctuated throughout the period: imports declined from 1996 to 1998, increased in 1999 and declined again in 2000. EU and global imports for the year 2000 were 1.5 to 2 times lower than imports for the year 1996.

**Table 52. Numbers of CITES Appendix II reptiles imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 12,226 | 5,784 | 6,720 | 7,121 | 5,684 | **37,535** |
| **JP*** | 5,801 | 4,724 | 1,803 | 0 | 0 | **12,328** |
| **US** | 39,813 | 30,002 | 21,413 | 42,842 | 23,730 | **157,800** |
| **Total world** | 62,431 | 42,569 | 38,833 | 57,006 | 38,656 | **239,495** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two major importing EU Member States for CITES Appendix II live reptiles from 1996 to 2000 were Spain and Germany. Spain imported 8,894 specimens (23.7% of all EU imports), while Germany imported 8,833 specimens (23.5%). Belgium and France also imported significant quantities of CITES Appendix II live reptiles from 1996 to 2000: 6,432 specimens for Belgium (17.1%) and 5,567 specimens for France (14.8%). Spanish imports decreased from 1997 to 1999 and showed a significant decline in 2000. German imports increased from 1997 to 2000, but imports in 2000 were still lower than imports in 1966. Belgian and French imports declined significantly from 1996 to 1999 and slightly increased again in 2000.

**Table 53. Main importing EU Member States for CITES Appendix II reptiles from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Spain** | 1,548 | 1,390 | 2,274 | 2,720 | 962 | **8,894** |
| **Germany** | 2,505 | 1,094 | 1,361 | 1,850 | 2,023 | **8,833** |
| **Belgium** | 2,660 | 1,575 | 1,362 | 379 | 456 | **6,432** |
| **France** | 3,123 | 1,038 | 464 | 273 | 669 | **5,567** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Most of the main countries of origin of CITES Appendix II live reptiles imported by the EU from 1996 to 2000 were located in Sub-Saharan Africa: Mali, Tanzania, Mozambique and Sudan. Mali was the origin for 7,678 specimens (20.5% of all EU imports) and Tanzania was the origin for 7,382 specimens (19.7%). The EU imported 5,835 specimens from Mozambique (15.5%) and 5,495 specimens from Sudan (14.6%). Guyana also featured as an important country of origin with 5,475 specimens imported by the EU (14.6%). Imports from Mali and Mozambique were high in 1996 and rather low in the subsequent years. Imports from Sudan increased significantly from 1996 to 2000, while imports from Tanzania and Guyana fluctuated a lot: imports in 2000 were more restricted than in 1996.

Most of the CITES Appendix II live reptiles imported by the EU from 1996 to 2000 came from wild origin (85.0%). Another 13.8% was captive bred and a very limited number came from ranching operations (1.0%).

**Table 54. Main countries of origin for CITES Appendix II reptiles imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Mali** | 5,503 | 1,068 | 907 | 0 | 200 | **7,678** |
| **Tanzania** | 2,319 | 544 | 1,596 | 1,444 | 1,479 | **7,382** |
| **Mozambique** | 5,503 | 205 | 0 | 47 | 80 | **5,835** |
| **Sudan** | 450 | 0 | 1,371 | 1,549 | 2,125 | **5,495** |
| **Guyana** | 957 | 634 | 248 | 2,762 | 874 | **5,475** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Amphibians

*Poison frogs Appendix II*

The total number of CITES Appendix II poison frogs imported by the EU from 1996 to 2000 was 9,708, which represented 16.3% of the global imports. USA imports were much more important and totalled 44,558 specimens or 74.1% of global imports. Japanese imports were restricted from 1996 to 1998, even lower than EU imports, and non existent for 1999 and 2000 due to the lack of import reported data for Japan for those two years. EU imports were steady along the years, except in 1998 when there was a sudden decrease. USA imports, together with world imports, showed a peak in 1997 and then a significant decrease in 1998. USA (and world) imports increased again in 1999, but stayed far below the level of 1997.

**Table 55. Numbers of CITES Appendix II poison frogs imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 2,500 | 2,083 | 903 | 2,039 | 2,183 | 9,708 |
| **JP*** | 758 | 1,175 | 1,900 | 0 | 0 | 3,833 |
| **US** | 9,393 | 18,997 | 3,090 | 8,846 | 4,232 | 44,558 |
| **Total world** | 12,756 | 22,944 | 6,718 | 11,121 | 6,614 | 60,153 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States of CITES Appendix II live poison frogs was the Netherlands, which imported 3,490 specimens (or 36.0% of all EU imports). Other importing EU Member States were Germany (1,995 specimens or 20.6%), Belgium (1,150 specimens or 11.9%) and Spain (1,131 specimens or 11.7%). Imports from the Netherlands increased throughout the period. German imports increased as well, but were nearly non existent in 1997 and 1998. Imports by Belgium only occurred in 1996 and 1997 and imports by Spain were high in 1996 and 1997 and low during subsequent years.

**Table 56. Main importing EU Member States for CITES Appendix II poison frogs from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 450 | 680 | 810 | 681 | 869 | **3,490** |
| **Germany** | 530 | 50 | 9 | 670 | 736 | **1,995** |
| **Belgium** | 516 | 634 | 0 | 0 | 0 | **1,150** |
| **Spain** | 452 | 442 | 80 | 157 | 0 | **1,131** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin for CITES Appendix II live poison frogs imported by the EU from 1996 to 2000 was Nicaragua, the origin for 4,015 specimens, which represented 41.4% of all EU imports. Other less important countries of origin were two South American countries: Suriname and Ecuador, the origin for respectively 2,867 and 1,533 live poison frogs (29.5% and 15.8% of all EU imports). The Czech Republic was also a country of origin for live Poison frogs: 1,165 captive bred specimens with origin in the Czech Republic were imported by the EU (12.0% of EU imports).

Less than the half (42.2%) of all live poison frogs imported by the EU from 1996 to 2000 were of wild source. Nearly the same amount (41.0%) of the specimens was captive bred. A small number (16.6%) originated from ranching operations.

**Table 57. Main countries of origin for CITES Appendix II poison frogs imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Nicaragua** | 1,059 | 1,043 | 0 | 1,405 | 508 | 4,015 |
| **Suriname** | 450 | 323 | 890 | 201 | 1,003 | 2,867 |
| **Ecuador** | 775 | 708 | 0 | 0 | 50 | 1,533 |
| **Czech Republic** | 200 | 0 | 13 | 400 | 552 | 1,165 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Mantellas Appendix II*

The total number of CITES Appendix II live Mantellas imported by the EU was 13,586, which represents 24.1% of the global imports. Imports by the EU showed a peak in 1998 and decreased significantly during the subsequent years. No EU imports of live Mantellas were reported for the year 2000. USA imports of live Mantellas were, on the contrary, overall increasing: imports in 2000 were nearly five times higher than imports in 1996. USA imports represented an important share of the global imports (68.8%). The USA share of global imports increased along the years and reached 97.6% in 2000. Japanese imports were very limited and represented only 4.0% of the global imports for the years 1996 to 1998.

**Table 58. Numbers of CITES Appendix II mantellas imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 3,077 | 3,590 | 4,754 | 2,165 | 0 | **13,586** |
| **JP*** | 152 | 508 | 636 | 0 | 0 | **1296** |
| **US** | 3,333 | 7,005 | 7,285 | 5,157 | 16,054 | **38,834** |
| **Total world** | 6,961 | 11,679 | 13,680 | 7,646 | 16,451 | **56,417** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Four EU Member States featured as the most important destinations of CITES Appendix II Mantellas imported by the EU from 1996 to 2000: Germany, the Netherlands, France and Belgium. Germany imported 3,150 specimens (or 23.2% of all EU imports). The Netherlands imported 2,716 specimens (or 20.0%). France and Belgium imported respectively 2,430 and 2,400 specimens (respectively 17.9% and 17.7%). For all four Member States no imports of specimens were reported for the year 2000. German and Belgian imports showed a peak in 1998 and a decrease in 1999. Dutch imports showed a peak in 1997 and a subsequent decrease in 1998 and 1999. French imports fluctuated throughout the period.

**Table 59. Main importing EU Member States for CITES Appendix II mantellas from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 800 | 930 | 1,060 | 360 | 0 | **3,150** |
| **Netherlands** | 519 | 985 | 982 | 230 | 0 | **2,716** |
| **France** | 625 | 810 | 420 | 575 | 0 | **2,430** |
| **Belgium** | 400 | 400 | 1,000 | 600 | 0 | **2,400** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Madagascar was the exclusive provider of CITES Appendix II live Mantellas to the EU for the years 1996 to 2000. This country was the origin of 13,546 specimens or 99.7% of all EU imports. Imports from Madagascar

showed a peak in 1998 and a subsequent decline in 1999. No imports of live Mantellas from Madagascar were reported for the year 2000.

Nearly all specimens of CITES Appendix II live Mantellas imported by the EU from 1996 to 2000 were of wild origin (99.7%).

**Table 60. Main countries of origin for CITES Appendix II mantellas imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Madagascar** | 3,077 | 3,550 | 4,754 | 2,165 | 0 | **13,546** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Fish

*Sturgeon Appendix I*

The only occurrence of Appendix I live sturgeons in the trade statistics for the years 1996 to 2000 concerned the import of 200 captive bred specimens, with origin in Canada, by Italy in 1999 for scientific purposes. Only 210 CITES Appendix I live sturgeons were imported worldwide.

*Sturgeon Appendix II*

From 1996 to 2000, the EU imported a total of 642,619 CITES Appendix II live sturgeons, which represented 59.4% of the global imports. The number of Appendix II live sturgeons imported by the EU increased rapidly and significantly throughout the years: it was nearly 20 times higher in 2000 than in 1996. In addition to the 642,619 live sturgeons, 383 kg of live sturgeons were imported by the EU during the same period. Japanese imports remained restricted from 1996 to 1998 and were non existent in 1999 and 2000 due to the lack of import reported data from Japan for these two years. USA imports were null in 1996 and 1997 and quite important for the years 1998 to 2000, amounting to 41.0% of global imports for these three years.

**Table 61. Numbers of CITES Appendix II sturgeons imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 11,504 | 46,400 | 151,185 | 207,580 | 225,950 | **642,619** |
| **JP*** | 2,000 | 0 | 1,600 | 0 | 0 | **3,600** |
| **US** | 0 | 0 | 200,071 | 100,000 | 119,098 | **419,169** |
| **Total world** | 13,504 | 46,400 | 356,256 | 319,920 | 345,689 | **1,081,769** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States of CITES Appendix II live sturgeons from 1996 to 2000 were Germany and France. Germany imported a total of 458,969 live sturgeons (or 71.4% of the total EU imports), while France imported 117,700 (or 18.3%). Imports by Germany were nearly non existent for 1996 and 1997 and quite important for 1998, 1999 and 2000. Imports by France increased from 1996 to 1998 and decreased from 1998 to 2000 in such a way that the figure for 2000 became lower than the figure for 1996.

**Table 62. Main importing EU Member States for CITES Appendix II sturgeons from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 4 | 0 | 106,185 | 177,080 | 175,700 | **458,969** |
| **France** | 10,000 | 30,000 | 45,000 | 23,000 | 9,700 | **117,700** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Poland, Russia and the USA were the main countries of origin of the CITES Appendix II live sturgeons imported by the EU from 1996 to 2000. No specimens were imported from Poland for the years 1996 and 1997, but imports during the subsequent years were of more importance: the number of Appendix II live sturgeons imported from Poland for the years 1996 to 2000 represented 53.4% of the total number of specimens imported by the EU during this period. As was the case for Poland, no live sturgeons were imported from Russia for the years 1996 and 1997. However, the number of specimens imported from Russia during the subsequent years amounted to 21.6% of the total number of live sturgeons imported by the EU from 1996 to 2000. Imports from the USA were zero for the years 1999 and 2000 and the number of specimens imported from this country from 1996 to 1998 amounted to 15.9% of the total number of live sturgeons imported into the EU from 1996 to 2000.

Imports from Russia increased while imports from the USA were non existent for 1999 and 2000. Imports from Poland increased from 1998 and 1999 and decreased in 2000.

Nearly all CITES Appendix II live sturgeons imported by the EU from 1996 to 2000 were captive bred (98.4%). A small part (1.6%) consisted of specimens with a wild source.

**Table 63. Main countries of origin for CITES Appendix II sturgeons imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Poland** | 0 | 0 | 100,000 | 136,000 | 107,200 | 343,200 |
| **Russia** | 0 | 0 | 5,685 | 63,580 | 69,250 | 138,515 |
| **US** | 11,504 | 45,400 | 45,000 | 0 | 0 | 101,904 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Insects

*Butterflies Appendix II*

The total number of CITES Appendix II live butterflies imported into the EU from 1996 to 2000 was 4,866, which represented a significant share (42.6%) of global imports. Japanese imports were more restricted than EU imports: high for the year 1996, low for the year 1997 and zero for the year 1998. No import reported trade statistics were available for Japan in 1999 and 2000 and figures are therefore missing for these two years. USA imports were also inferior to EU imports for the entire period and represented 33.9% of global imports. EU and global imports generally declined throughout the period: EU imports in 2000 were more than 7 times lower than EU imports in 1996 and global imports in 2000 were nearly 3 times lower than global imports in 1996. USA imports showed a peak in 1998 and decreased during the subsequent years, but imports in 2000 were still 4 times higher than imports in 1996.

**Table 64. Numbers of CITES Appendix II butterflies imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 1,756 | 1,856 | 151 | 877 | 226 | **4,866** |
| **JP*** | 2,004 | 554 | 0 | 0 | 0 | **2,558** |
| **US** | 223 | 381 | 1,089 | 1,257 | 916 | **3,866** |
| **Total world** | 3,293 | 2,801 | 2,045 | 2,134 | 1,142 | **11,415** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main importing EU Member States of live butterflies were the UK and Germany. The UK imported 1,908 specimens (or 39.2% of all EU imports) from 1996 to 2000. Germany imported 1,801 specimens (or 37.0%). Italy imported 759 specimens in 1999, which was a significant amount (15.6% of all EU imports). This country did not import anything during the other years. Imports by the UK decreased significantly throughout the period. Imports by Germany were low in 1999 and 2000, as compared to imports in 1996 and 1997.

**Table 65. Main importing EU Member States for CITES Appendix II butterflies from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **UK** | 906 | 823 | 151 | 28 | 0 | 1,908 |
| **Germany** | 850 | 660 | 0 | 90 | 201 | 1,801 |
| **Italy** | 0 | 0 | 0 | 759 | 0 | 759 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The most important country of origin of live butterflies imported by the EU was Papua New Guinea, which provided 3,900 specimens to the EU (or 80,14% of all EU imports). Other countries of origin were Indonesia, Australia and Malaysia with respectively 492, 346 and 128 specimens destined for the EU (which represented respectively 10.1%, 7.1% and 2.6% of all EU imports). Imports from Papua New Guinea have decreased significantly throughout the period: high in 1996 and 1997, low in 1999 and non existent in 1998 and 2000. Imports from Australia and Malaysia were zero in 1998 and 1999 and rather low in 2000. Imports from Indonesia fluctuated throughout the period and, contrary to the other countries of origin, show a peak in 2000.

Nearly a half (47.8%) of all CITES Appendix II live butterflies imported by the EU from 1996 to 2000 were captive bred and another half (46.9%) came from ranching operations.

**Table 66. Main countries of origin for CITES Appendix II butterflies imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Papua New Guinea** | 1,656 | 1457 | 0 | 787 | 0 | **3,900** |
| **Indonesia** | 0 | 70 | 151 | 90 | 181 | **492** |
| **Australia** | 100 | 226 | 0 | 0 | 20 | **346** |
| **Malaysia** | 0 | 103 | 0 | 0 | 25 | **128** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Scorpions and Spiders

*Scorpions Appendix II*

The total number of CITES Appendix II live scorpions imported by the EU from 1996 to 2000 was 81,347, which represents 24.2% of the global imports. Japanese imports were much more restricted than EU imports and represented only 4.3% of the global imports for the years from 1996 to 1998 (while EU imports represented 25.0% of the global imports for the same three-year period). USA imports were more important than EU imports and represented 66.7% of global imports. EU imports increased from 1996 to 1999 and declined in 2000. USA and global imports followed a similar pattern. USA and global imports, however, increased very significantly from 1996 to 1997, which was not the case for EU imports.

**Table 67. Numbers of CITES Appendix II scorpions imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 13,050 | 13,683 | 17,389 | 20,913 | 16,312 | **81,347** |
| **JP*** | 1,900 | 4,225 | 1,490 | 0 | 0 | **7,615** |
| **US** | 17,178 | 47,017 | 46,452 | 61,037 | 52,212 | **223,896** |
| **Total world** | 36,431 | 67,781 | 72,095 | 85,542 | 74,097 | **335,946** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix II live scorpions from 1996 to 2000 was Germany, which imported 26,928 specimens (or 33.1% of all EU imports). Other importing EU Member States were the UK with 17,266 specimens (or 21,2%), Belgium with 11,999 specimens (or 14.8%) and Spain with 11,109 specimens (13.7%). Imports by Germany and Spain increased from 1996 to 1999 and showed a slight decline for Germany and a drastic decline for Spain in 2000. Imports by the UK showed a peak in 1998 and declined subsequently in such a way that imports of 2000 were lower than imports of 1996. Belgian imports declined from 1996 to 1997 and increased again subsequently. Imports by Belgium of 2000 were nearly of the same level as imports of 1996.

**Table 68. Main importing EU Member States for CITES Appendix II scorpions from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 3,665 | 5,119 | 5,338 | 6,476 | 6,330 | **26,928** |
| **UK** | 3,242 | 2,885 | 4,931 | 3,998 | 2,210 | **17,266** |
| **Belgium** | 2,840 | 1,500 | 1,735 | 2,874 | 3,050 | **11,999** |
| **Spain** | 1,116 | 2,320 | 2,725 | 4,083 | 865 | **11,109** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin of CITES Appendix II live scorpions imported by the EU from 1996 to 2000 was Ghana, the origin for 57,498 specimens (or 70.7% of all EU imports). Another important country of origin was Togo, the origin for 19,261 specimens (or 23,7%). Imports from Ghana increased throughout the period, except in 2000 when they dropped abruptly. Imports from Togo showed a peak in 1996, a decline in 1997 and 1998 and an increase again during subsequent years.

Most CITES Appendix II live scorpions imported by the EU from 1996 to 2000 were of wild origin (81.5%). A certain number of specimens came from ranching operations (18.4%) and a very small number of specimens was captive bred (0.1%).

**Table 69. Main countries of origin for CITES Appendix II scorpions imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Ghana** | 7,472 | 9,841 | 14,263 | 15,977 | 9,945 | **57,498** |
| **Togo** | 5,007 | 2,921 | 2,795 | 3,691 | 4,847 | **19,261** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Tarantulas Appendix II*

The total number of CITES Appendix II live tarantulas imported by the EU for the years 1996 to 2000 was 6,893, which represented 30.2% of the global imports. Japanese imports were more restricted than EU imports and totalled 1,413 specimens for the years from 1996 to 1998, which represented 12.2% of the global imports for this three-year period (while EU imports represented 28.9% of the global imports for the same period). USA imports were more important than EU imports and totalled 12,278 specimens or 53.9% of the global imports. The EU, US and world imports showed an overall increase from 1996 to 2000, although USA imports declined somewhat in 2000.

**Table 70. Numbers of CITES Appendix II tarantulas imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 811 | 1,361 | 1,188 | 1,829 | 1,704 | **6,893** |
| **JP*** | 209 | 605 | 599 | 0 | 0 | **1,413** |
| **US** | 204 | 2,764 | 2,888 | 3,717 | 2,705 | **12,278** |
| **Total world** | 1,490 | 5,249 | 4,886 | 5,578 | 5,598 | **22,801** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main importing EU Member States for CITES Appendix II live tarantulas from 1996 to 2000 were Germany with 3,646 specimens (or 52.9% of all EU imports) and Spain with 1,652 specimens (or 24.0% of all EU imports). German imports increased from 1996 to 1999 and declined in 2000, while Spanish imports were very limited in 1996, steady for the years 1997 to 1999 and also declined in 2000.

**Table 71. Main importing EU Member States for CITES Appendix II tarantulas from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 400 | 690 | 710 | 1,036 | 810 | **3,646** |
| **Spain** | 13 | 445 | 448 | 426 | 320 | **1,652** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main countries of origin for CITES Appendix II live tarantulas imported by the EU from 1996 to 2000 were Nicaragua, origin for 2,602 specimens to the EU (37.8% of all EU imports) and Switzerland, origin for 2,601 specimens (37.7%). Imports from Nicaragua and Switzerland have increased throughout the period, except for 2000 when they declined. Mexico and the Czech Republic featured as countries of origin of minor importance.

More than half of the CITES Appendix II live tarantulas imported by the EU were captive bred (52.8%), although a significant number of specimens came from the wild (39.6%) and a small number came from an unknown source (7.6%).

**Table 72. Main countries of origin for CITES Appendix II scorpions imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Nicaragua** | 126 | 568 | 472 | 876 | 560 | **2,602** |
| **Switzerland** | 158 | 475 | 496 | 857 | 615 | **2,601** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Corals

The following tables and figures clearly show that the EU did not have a world leading position regarding the imports of stony corals. Looking at the numbers of live specimens imported between 1996 and 2000, the EU represented only 14.7% of the world coral imports. The USA played a much more significant role, taking a share of 81.1%, while Japan accounted to only 0.5%. This poor percentage for Japan was partly due to the fact that the trade statistics did not include import reported data for this country for 1999 and 2000.

**Table 73. Number of live stony corals (Scleractina spp.) imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 135,458 | 144,208 | 157,290 | 192,770 | 97,637 | 727,363 |
| **JP*** | 400 | 75 | 25,172 | 0 | 0 | 25,647 |
| **US** | 795,186 | 781,236 | 748,795 | 906,600 | 790,413 | 4,022,230 |
| **Total world** | 962,392 | 949,988 | 958,240 | 1,119,270 | 969,641 | 4,959,531 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Although the quantities involved were much lower than the numbers of live coral specimens, the analysis of the imported kilograms live coral specimens confirmed the pattern identified above. The EU imports represented 1.6% of worldwide imports, while the USA imports reached 97.5%. Japan did not report any imports of kilograms live coral specimens from 1996 to 2000.

**Table 74. Kilograms live stony corals (Scleractina spp.) imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 215 | 0 | 3,225 | 16,000 | 2,540 | 21,980 |
| **JP*** | 0 | 0 | 0 | 0 | 0 | 0 |
| **US** | 316,437 | 398,901 | 378,152 | 79 | 215,822 | 1,309,391 |
| **Total world** | 316,652 | 398,901 | 389,883 | 17,603 | 220,419 | 1,343,458 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Looking specifically at the live corals reported in trade in numbers (so excluding those reported in units, such as kilograms), the main importing Member States were France, Germany, the UK and the Netherlands from 1996 to 2000. The trade statistics did not include all import reported data for France for the year 2000 and, for that reason, France does not appear, as it should be, as the leading importing EU Member State for corals for the study period. The figures at hand show that Germany was the largest importer with a total of 272,086 live coral specimens, which represents 37.4 % of all EU imports during that five-year period. France came second with 248,960 specimens (34.2% of EU imports), followed by the Netherlands with 77,165 specimens (10.6% of EU imports) and the UK with 58,039 specimens (8.0% of EU imports). These four Member States have imported approximately 90% of all live coral specimens imported by the EU. In addition to a total of 727,363 live corals, the EU also imported some 21,980 kg of live corals.

**Table 75. Main importing EU Member States of live specimens of stony corals (Scleractina spp.) for the years from 1996 to 2000.**

| Year | France | Germany | UK | Netherlands | Total |
|---|---|---|---|---|---|
| **1996** | 62,759 | 47,429 | 10,505 | 5,934 | 126,627 |
| **1997** | 60,779 | 47,672 | 8,778 | 15,963 | 133,192 |
| **1998** | 42,163 | 60,684 | 13,225 | 23,057 | 139,129 |
| **1999** | 82,571 | 64,053 | 10,434 | 16,755 | 173,813 |
| **2000** | 688 | 52,248 | 15,097 | 15,456 | 83,489 |
| **Total** | **248,960** | **272,086** | **58,039** | **77,165** | **656,250** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The number of live specimens of corals imported by the EU has significantly increased from 1996 to 1999 (a 37.3% increase) and showed an abrupt decline from 1999 to 2000 (52.0% decrease). This downward trend was probably due to the fact that most of the French corals import reported data were not included in the trade statistics.

The main country of origin of corals imported by the EU was Indonesia. From 1996 to 2000, 641,162 live coral specimens with Indonesian origin were imported by the EU (88.2% of all live coral imports by the EU during that period). Other countries of origin were of less importance and all located in the Pacific Ocean. Fiji exported 50,183 specimens to the EU (6.9% of EU imports), the Solomon Islands exported 15,740 specimens to the EU (2.2%) and Tonga exported 14,217 specimens to the EU (2.0%). Indonesian exports slightly increased from 1997 to 1999 (11.7% increase from 1997 to 1998; 5.7% increase from 1998 to 1999) and then abruptly decreased more than a half from 1999 to 2000 (53.3% decrease). This sudden downward trend is probably also due to the fact that most of the French import reported data for corals for the year 2000 were not included in the trade statistics.

Most of the live coral specimens (99%) that were imported by the EU from 1996 to 2000 were of wild origin. Other specimens were reported from captive breeding origin, such as the 5,600 specimens imported from the Solomon Islands by France in 1997. Around 400 specimens imported from Tonga by France in 1999 were reported as originating from a ranching operation.

**Table 76. Main countries of origin for live specimens of stony corals (Scleractina spp.) for the years from 1996 to 2000.**

| Year | Indonesia | Solomon Islands | Fiji | Tonga | Total |
|---|---|---|---|---|---|
| **1996** | 132,241 | 2,653 | 208 | 36 | 135,138 |
| **1997** | 132,118 | 8,429 | 3,006 | 0 | 143,553 |
| **1998** | 147,554 | 1,333 | 5,557 | 0 | 154,444 |
| **1999** | 155,984 | 2,599 | 27,594 | 5,314 | 191,491 |
| **2000** | 73,265 | 726 | 13,818 | 8,867 | 96,676 |
| **Total** | **641,162** | **15,740** | **50,183** | **14,217** | **721,302** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Ornamental Plants

The comparative tabulations trade statistics that were used for the analysis of the import of ornamental plants by the EU from 1996 to 2000 dealt with the live specimens and the seeds that belonged to 10 different ornamental plants taxa of which 4 were listed on both CITES Appendix I and II and 6 on Appendix II only. The WCMC-UNEP has informed us that data related to artificially plants are only included in their trade statistics if they arrive in a format suitable for electronic loading. Most of the major reports of importing countries arrived in such format for 1999 and 2000 but not necessarily in previous years.

*Snowdrops Appendix II*

**Table 77. Numbers of CITES Appendix II snowdrops imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 8,239,818 | 14,725,458 | 1,981,825 | 18,946,409 | 15,469,557 | **59,363,067** |
| **JP*** | 0 | 587 | 602,301 | 0 | 0 | **602,888** |
| **US** | 340,566 | 138,953 | 705,024 | 51,330 | 1 | **1,235,874** |
| **Total world** | 9,452,754 | 15,011,998 | 3,510,925 | 19,069,229 | 16,351,649 | **63,396,555** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 78. Main importing EU Member States of CITES Appendix II snowdrops from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 8,174,818 | 14,660,458 | 1,981,825 | 18,946,409 | 15,469,557 | **59,233,067** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 79. Main countries of origin for CITES Appendix II snowdrops imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Georgia** | 0 | 8,999,991 | 0 | 10,135,000 | 10,000,000 | **29,134,991** |
| **Turkey** | 4,546,268 | 5,725,467 | 1,981,825 | 6,811,409 | 5,454,557 | **24,519,526** |
| **Russia** | 3,693,550 | 0 | 0 | 0 | 0 | **3,693,550** |
| **Bulgaria** | 0 | 0 | 0 | 2,000,000 | 0 | **2,000,000** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 80. Source of the CITES Appendix II snowdrops imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 2,493,922 | 4.2% |
| **Wild** | 56,869,145 | 95.8% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Sternbergias Appendix II*

**Table 81. Numbers of CITES Appendix II sternbergias imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 629,200 | 773,450 | 200,000 | 613,820 | 535,000 | **2,751,470** |
| **JP*** | 0 | 0 | 151,010 | 0 | 0 | **151,010** |
| **US** | 2,800 | 13,580 | 9,946 | 0 | 0 | **26,326** |
| **Total world** | 636,402 | 792,030 | 360,956 | 613,820 | 540,600 | **2,943,808** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main and unique importing EU Member State of CITES Appendix II live Sternbergias from 1996 to 2000 was the Netherlands. The main country of origin was Turkey.

**Table 82. Source of the CITES Appendix II sternbergias imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 1,191,020 | 43.3% |
| **Wild** | 1,560,450 | 56.7% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Elephant trunks Appendix I*

**Table 83. Numbers of CITES Appendix I elephant trunks imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 102 | 167 | 207 | 288 | 260 | **1,024** |
| **JP*** | 0 | 0 | 0 | 0 | 0 | **0** |
| **US** | 150 | 0 | 25 | 400 | 0 | **575** |
| **Total world** | 260 | 193 | 248 | 729 | 274 | **1,704** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 84. Main importing EU Member States of CITES Appendix I elephant trunks from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 102 | 146 | 117 | 288 | 260 | **913** |
| **UK** | 0 | 21 | 90 | 0 | 0 | **111** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 85. Main countries of origin for CITES Appendix I elephant trunks imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Switzerland | 100 | 145 | 207 | 280 | 252 | **984** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

All CITES Appendix I live elephant trunks imported by the EU from 1996 to 2000 were artificially propagated.

*Elephant trunks Appendix II*

**Table 86. Numbers of CITES Appendix II elephant trunks imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 2,370 | 1,748 | 2,560 | 3,347 | 1,994 | **12,019** |
| JP* | 771 | 308 | 245 | 0 | 0 | **1,324** |
| US | 746 | 148 | 368 | 2,287 | 1,249 | **4,798** |
| Total world | 3,887 | 2,250 | 3,441 | 6,074 | 3,941 | **19,593** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 87. Main importing EU Member States of CITES Appendix II elephant trunks from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Germany | 2,290 | 1,689 | 2,308 | 2,348 | 1,501 | **10,136** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 88. Main countries of origin for CITES Appendix II elephant trunks imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Switzerland | 2,035 | 989 | 255 | 1,179 | 691 | **5,149** |
| US | 285 | 504 | 1,327 | 942 | 504 | **3,562** |
| South Africa | 0 | 210 | 774 | 738 | 761 | **2,483** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 89. Source of the CITES Appendix II elephant trunks imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 10,435 | 86.8% |
| Wild | 1,420 | 11.8% |
| Unknown | 164 | 1.4% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.
*Tillandsias Appendix II*

**Table 90. Numbers of CITES Appendix II tillandsias imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 82,321 | 75,465 | 80,719 | 105,923 | 35,179 | **379,607** |
| JP* | 7,230 | 8,455 | 40,824 | 0 | 0 | **56,509** |
| US | 75,420 | 61,397 | 62,974 | 15,953 | 7,579 | **223,323** |
| Total world | 164,971 | 145,419 | 184,532 | 131,900 | 44,457 | **671,279** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 91. Main importing EU Member States of CITES Appendix I tillandsias from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Germany | 81,821 | 75,454 | 61,384 | 53,588 | 20,039 | **292,286** |
| Netherlands | 0 | 11 | 19,335 | 34,335 | 15,140 | **68,821** |
| UK | 0 | 0 | 0 | 15,000 | 0 | **15,000** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 92. Main countries of origin for CITES Appendix II tillandsias imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Guatemala | 82,321 | 75,454 | 80,719 | 105,923 | 27,039 | **371,456** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 93. Source of the CITES Appendix II tillandsias imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 379,596 | 99.9% |
| Unknown | 11 | 0.0% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Cacti Appendix I*

**Table 94. Numbers of CITES Appendix I cacti imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 1,475 | 1,400 | 4,682 | 12,492 | 5,241 | **25,290** |
| JP* | 4 | 10 | 16 | 0 | 0 | **30** |
| US | 710 | 11 | 1,530 | 1,116 | 2 | **3,369** |
| Total world | 2,867 | 2,698 | 9,661 | 17,814 | 6,682 | **39,722** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 95. Numbers of CITES Appendix I cacti seeds imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 49,735 | 27,455 | 15,435 | 6,720 | 4,465 | **103,810** |
| JP* | 0 | 100 | 0 | 0 | 0 | **100** |
| US | 0 | 0 | 0 | 0 | 0 | **0** |
| Total world | 52,505 | 29,592 | 38,994 | 7,767 | 9,010 | **137,868** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 96. Main importing EU Member States of CITES Appendix I cacti from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Germany | 1,358 | 1,391 | 4,611 | 11,979 | 5,236 | **24,575** |
| Italy | 0 | 0 | 11 | 486 | 0 | **497** |
| UK | 117 | 0 | 30 | 6 | 0 | **153** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 97. Main importing EU Member States of CITES Appendix I cacti seeds from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Germany | 39,345 | 21,855 | 12,085 | 6,160 | 0 | **79,445** |
| UK | 4,270 | 4,280 | 1,545 | 0 | 3,750 | **13,845** |
| Italy | 6,000 | 0 | 1,805 | 0 | 0 | **7,805** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 98. Main countries of origin for CITES Appendix I cacti imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Czech Republic | 710 | 975 | 3,235 | 9,505 | 4,125 | **18,550** |
| US | 121 | 6 | 1,198 | 2,518 | 910 | **4,753** |
| South Africa | 492 | 100 | 90 | 108 | 0 | **790** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 99. Main countries of origin for CITES Appendix I cacti seeds imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Czech Republic | 39,200 | 0 | 0 | 0 | 3,750 | **42,950** |
| USA | 10,535 | 9,135 | 15,425 | 4,660 | 665 | **40,420** |
| Slovakia | 0 | 17,400 | 0 | 0 | 0 | **17,400** |
| Malta | 0 | 920 | 10 | 2,060 | 50 | **3,040** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

All CITES Appendix I live cacti and seeds of cacti imported by the EU from 1996 to 2000 were artificially propagated.

*Cacti Appendix II*

**Table 100. Numbers of CITES Appendix II cacti imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 46,380 | 102,985 | 2,531,081 | 2,066,006 | 1,236,535 | **5,982,987** |
| **JP*** | 50,303 | 55,384 | 99,332 | 0 | 0 | **205,019** |
| **US** | 8,061,947 | 6,451,952 | 3,785,698 | 4,043,968 | 1,709,055 | **24,052,620** |
| **Total world** | 8,315,917 | 6,655,132 | 6,471,551 | 6,310,247 | 4,401,271 | **32,154,118** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 101. Numbers of CITES Appendix II cacti seeds imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 10,080 | 280 | 580 | 0 | 1,000 | **11,940** |
| **JP*** | 0 | 0 | 0 | 0 | 0 | **0** |
| **US** | 0 | 0 | 100 | 0 | 0 | **100** |
| **Total world** | 10,210 | 280 | 1,231 | 444 | 1,750 | **13,915** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 102. Main importing EU Member States of CITES Appendix II cacti from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 1,308 | 173 | 2,414,728 | 1,997,993 | 1,159,449 | **5,573,651** |
| **Germany** | 10,555 | 18,911 | 74,365 | 40,893 | 37,588 | **182,312** |
| **Italy** | 15,000 | 1,952 | 40,508 | 320 | 38,100 | **95,880** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 103. Main importing EU Member States of CITES Appendix II cacti seeds from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **UK** | 10,080 | 230 | 0 | 0 | 1,000 | **11,310** |
| **Italy** | 0 | 50 | 530 | 0 | 0 | **580** |
| **Germany** | 0 | 0 | 50 | 0 | 0 | **50** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 104. Main countries of origin for CITES Appendix II cacti imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Korea, Rep. Of** | 0 | 37,600 | 1,718,097 | 1,569,047 | 889,897 | **4,214,641** |
| **Turkey** | 0 | 0 | 564,837 | 321,158 | 304,864 | **1,190,859** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 105. Main countries of origin for CITES Appendix II cacti seeds imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| USA | 350 | 280 | 580 | 0 | 0 | **1,210** |
| Chile | 9,730 | 0 | 0 | 0 | 0 | **9,730** |
| Czech Republic | 0 | 0 | 0 | 0 | 1,000 | **1,000** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 106. Source of the CITES Appendix II cacti imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 5,978,254 | 99.9% |
| Wild | 2,850 | 0.1% |
| Unknown | 1,883 | 0.0% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 107. Source of the CITES Appendix II cacti seeds imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 2,210 | 18.5% |
| Wild | 9,730 | 81.5% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Cycads Appendix II*

**Table 108. Numbers of CITES Appendix II cycads imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 161,841 | 159,821 | 654,136 | 612,595 | 990,384 | **2,578,777** |
| JP* | 2 | 515 | 5,533 | 0 | 0 | **6,050** |
| US** | 133,290 | 181,273 | 279,581 | 308,327 | 302,061 | **1,204,532** |
| Total world | 295,138 | 341,804 | 939,562 | 920,958 | 1,296,550 | **3,794,012** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
** The US also imported during the period 1996 to 2000 97,336 kg of live cycads
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 109. Main importing EU Member States of CITES Appendix II cycads from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Netherlands | 0 | 32 | 577,672 | 358,970 | 689,363 | **1,626,037** |
| Germany | 120,965 | 136,273 | 64,440 | 99,700 | 105,710 | **527,088** |
| France | 380 | 0 | 0 | 115,825 | 68,826 | **185,031** |
| Spain | 3,692 | 18,536 | 2,846 | 4,759 | 74,358 | **104,191** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 110. Main countries of origin for CITES Appendix II cycads imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Costa Rica** | 62,541 | 113,892 | 319,836 | 305,075 | 198,639 | **999,983** |
| **Taiwan** | 86,000 | 37,000 | 171,097 | 173,350 | 523,534 | **990,981** |
| **Israel** | 3,315 | 7,561 | 70,988 | 129,018 | 149,034 | **359,916** |
| **Honduras** | 0 | 0 | 72,519 | 2,009 | 66,628 | **141,156** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 111. Source of the CITES Appendix II cycads imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 2,575,574 | 99.9% |
| **Wild** | 1,070 | 0.0% |
| **Unknown** | 2,133 | 0.1% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Tree ferns Appendix II*

**Table 112. Numbers of CITES Appendix II tree ferns imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU**** | 2,501 | 46,076 | 20,842 | 85,430 | 115,463 | **270,312** |
| **JP*** | 5,828 | 942 | 872 | 0 | 0 | **7,642** |
| **US** | 14 | 5 | 0 | 0 | 9 | **28** |
| **Total world** | 8,343 | 47,039 | 21,728 | 85,473 | 115,988 | **278,571** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
** The EU also imported during the period 1996 to 2000 391 tree fern seeds
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 113. Main importing EU Member States of CITES Appendix II tree ferns from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 1,400 | 0 | 13,667 | 67,150 | 64,378 | **146,595** |
| **UK** | 0 | 44,876 | 7,014 | 17,371 | 48,904 | **118,165** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 114. Main countries of origin for CITES Appendix II tree ferns imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **New Zealand** | 200 | 359 | 14,378 | 63,697 | 67,041 | **145,675** |
| **Australia** | 2,300 | 24,105 | 6,464 | 19,917 | 47,000 | **99,786** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 115. Source of the CITES Appendix II cycads imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 63,842 | 23.6% |
| **Wild** | 184,870 | 68.4% |
| **Unknown** | 21,600 | 8.0% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Aloes Appendix I*

**Table 116. Numbers of CITES Appendix I aloes imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 304 | 54 | 107 | 229 | 288 | **982** |
| **JP*** | 25 | 0 | 0 | 0 | 0 | **25** |
| **US** | 457 | 50 | 0 | 725 | 2,331 | **3,563** |
| **Total world** | 812 | 138 | 207 | 997 | 2,793 | **4,947** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 117. Main importing EU Member States of CITES Appendix I aloes from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 283 | 31 | 35 | 198 | 288 | **835** |
| **UK** | 21 | 13 | 71 | 31 | 0 | **136** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 118. Main countries of origin for CITES Appendix I aloes imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Switzerland** | 270 | 0 | 50 | 90 | 44 | **454** |
| **USA** | 21 | 13 | 41 | 131 | 194 | **400** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 119. Source of the CITES Appendix I aloes imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 966 | 98.4% |
| **Wild** | 10 | 1.0% |
| **Unknown** | 6 | 0.6% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Aloes Appendix I*

**Table 120. Numbers of CITES Appendix II aloes imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 648 | 710 | 1,016 | 575 | 1,358 | **4,307** |
| JP* & ** | 1,813 | 6,617 | 35 | 0 | 0 | **8,465** |
| US *** | 13,002 | 27,530 | 18,424 | 110,802 | 58,074 | **227,832** |
| Total world | 15,468 | 34,896 | 19,587 | 113,378 | 84,673 | **268,002** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
** Japan imported 20,086 seeds in addition to 6,671 live specimens in 1997
*** The USA imported 138 shipments of live specimens in addition to 110,802 live specimens in 1999
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 121. Main importing EU Member States of CITES Appendix II aloes from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Germany | 638 | 457 | 840 | 141 | 734 | **2,810** |
| France | 0 | 93 | 1 | 177 | 555 | **826** |
| UK | 0 | 159 | 61 | 45 | 17 | **282** |
| Italy | 5 | 0 | 100 | 27 | 30 | **162** |
| Portugal | 2 | 0 | 0 | 129 | 0 | **131** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 122. Main countries of origin for CITES Appendix II aloes imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| South Africa | 287 | 203 | 784 | 454 | 1,083 | **2,811** |
| US | 78 | 317 | 221 | 72 | 27 | **715** |
| Switzerland | 280 | 75 | 0 | 5 | 70 | **430** |
| Madagascar | 3 | 93 | 0 | 37 | 15 | **148** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 123. Source of the CITES Appendix II aloes imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 3,731 | 86.6% |
| Wild | 529 | 12.3% |
| Unknown | 47 | 1.1% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Orchids Appendix I*

**Table 124. Numbers of CITES Appendix I orchids imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 2,884 | 3,104 | 2,783 | 507 | 1,426 | **10,704** |
| **JP*** | 11,685 | 11,317 | 106,152 | 0 | 0 | **129,154** |
| **US** | 5,611 | 7,554 | 28,159 | 21,844 | 39,580 | **102,748** |
| **Total world** | 55,194 | 28,742 | 140,460 | 27,191 | 43,562 | **295,149** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 125. Main importing EU Member States of CITES Appendix I orchids from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **UK** | 1,210 | 1,302 | 1,899 | 171 | 728 | **5,310** |
| **Germany** | 132 | 648 | 379 | 207 | 313 | **1,679** |
| **Netherlands** | 166 | 685 | 401 | 50 | 300 | **1,602** |
| **Belgium** | 655 | 0 | 41 | 60 | 75 | **831** |
| **France** | 553 | 140 | 28 | 19 | 8 | **748** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 126. Main countries of origin for CITES Appendix I orchids imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **US** | 686 | 967 | 1,518 | 54 | 733 | **3,958** |
| **UK** | 500 | 1,100 | 0 | 0 | 300 | **1,900** |
| **Thailand** | 719 | 406 | 357 | 161 | 207 | **1,850** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 127. Source of the CITES Appendix I orchids imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 10,535 | 98.4% |
| **Wild** | 1 | 0.0% |
| **Unknown** | 168 | 1.6% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Orchids Appendix I*

**Table 128. Numbers of CITES Appendix II orchids imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 135,977 | 192,268 | 2,019,705 | 3,167,439 | 5,020,069 | **105,35,458** |
| JP* | 17,225,332 | 16,614,545 | 10,902,402 | 0 | 0 | **447,42,279** |
| US | 5908,357 | 5,828,781 | 6,866,759 | 8,885,949 | 10,536,205 | **380,26,051** |
| Total world | 23,410,452 | 23,402,260 | 19,911,953 | 19,610,718 | 17,272,882 | **103,608,265** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 129. Main importing EU Member States of CITES Appendix II orchids from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Netherlands | 3,168 | 2,444 | 1,882,172 | 2,666,049 | 4,479,550 | **9,033,383** |
| France | 3,738 | 1,775 | 9,767 | 336,114 | 410,401 | **761,795** |
| Germany | 111,301 | 89,918 | 83,855 | 139,668 | 81,848 | **506,590** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 130. Main countries of origin for CITES Appendix II orchids imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| Thailand | 68,720 | 46,395 | 1,462,326 | 2,215,729 | 3,534,909 | **7,328,079** |
| Taiwan | 15,474 | 41,818 | 232,214 | 579,186 | 478,813 | **1,347,505** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 131. Source of the CITES Appendix II orchids imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| Art. propagated | 10,448,810 | 99.2% |
| Wild | 42,221 | 0.4% |
| Unknown | 44,427 | 0.4% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Cyclamen Appendix II*

**Table 132. Numbers of CITES Appendix II cyclamen imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 1,285,175 | 1,488,420 | 286,880 | 1,776,650 | 1,935,525 | **6,772,650** |
| **JP*** | 19,140 | 36,280 | 173,257 | 0 | 0 | **228,677** |
| **US**** | 695,441 | 533,612 | 114,587 | 55,998 | 6,733 | **1,406,371** |
| **Total world** | 2,007,163 | 2,060,577 | 591,334 | 1,836,268 | 1,973,495 | **8,468,837** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
** The USA also imported during the period 1996 to 2000 1,050 shipments of live cyclamens
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 133. Main importing EU Member States of CITES Appendix II cyclamen from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Netherlands** | 1,283,175 | 1,485,920 | 286,816 | 1,776,650 | 1,935,525 | **6,768,086** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 134. Main countries of origin for CITES Appendix II cyclamen imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Turkey** | 1,285,175 | 1,486,920 | 277,080 | 1,756,350 | 1,798,325 | **6,603,850** |
| **Israel** | 0 | 1,500 | 9,800 | 20,300 | 137,200 | **168,800** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 135. Source of the CITES Appendix II cyclamen imported by the EU from 1996 to 2000.**

| Source | # of specimens | Percentage |
|---|---|---|
| **Art. propagated** | 419,300 | 6.2% |
| **Wild** | 6,353,318 | 93.8% |
| **Unknown** | 32 | 0.0% |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

## Medicinal and Aromatic Plants (MAPs)

The comparative tabulations trade statistics that were used for the analysis of the import of medicinal plants by the EU from 1996 to 2000 included a variety of types of specimens that belonged to 16 selected medicinal plant species (see also Annex I) of which 15 were listed on CITES Appendix II and one on Appendix I. As different types of specimens apply to different medicinal plant species, trade statistics were analysed for each individual medicinal plant species.

The results soon indicated that some species were not involved in significant EU and/or world trade. For three species *Dioscorea* deltoidea, *Aquilaria malaccensis* and *Guaiacum sanctum*, all listed on Appendix II, no EU import reported data were present in the trade statistics. Therefore no analysis of their trade has been performed. Further, the EU imports as well as the total world imports for six other species *Rauvolfia serpentina*, *Pterocarpus santalinus, Piccrorhiza kurrooa, Taxus wallichiana, Nardostachys grandiflora* and *Guaiacum officinale,* all species listed on Appendix II, were very restricted. Therefore, these species have also been excluded from the analyses.

*Panax quinquefolius* (Appendix II)

Japan has not imported many kilograms roots of *Panax quinquefolius* from 1996 to 2000, but nevertheless it was four times the quantities imported by the EU. During the same period, the USA imported significant amounts roots (in kilograms) of *Panax quinquefolius*, which represented 28.3% of the world imports, usually from Asian countries (but with origin in the USA) or directly from Canada. World imports have suddenly increased in the year 2000 (6.2 times more than imports for 1999) due to an increase of demand from Asian countries. Compared to Japan, the USA and the world, the EU is a negligible importer of kilograms roots of *Panax quinquefolius.*

Small quantities of specimens of *Panax quinquefolius* were imported by the EU from 1996 to 2000, namely 158 kg roots, 299 roots, 24 pieces of roots, 3 boxes roots, 6.4 kg live specimens, 2 derivatives, 2 bags derivatives, 6 boxes derivatives and 53 unspecified specimens. The main EU Member States of import were the Netherlands (import of 11 kg roots, 270 roots, 24 pieces of roots and 53 unspecified specimens), Italy (import of 100 kg roots) and the UK (import of 46 kg roots, 3 boxes roots, 6 boxes derivatives and 2 bags derivatives). The main countries of origin were Canada (146 kg roots, 28 roots and 3 kg live specimens) and the USA (270 roots, 23 unspecified specimens, 10 kg roots and 3.4 kg live specimens). The specimens involved were either of unknown origin or artificially propagated. Only 34 gr roots from the USA imported by the EU were of wild origin. Informants, however, confirmed that many imports into the EU of products containing *Panax quinquefolius*, particularly in the TCM sector, lack proper CITES documents (Reijngoud, pers. comm. to TRAFFIC Europe – Germany, February 2002).

**Table 136. Kilograms roots of *Panax quinquefolius* imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 0 | 100 | 57 | 0 | 1 | **158** |
| **JP*** | 28 | 238 | 373 | 0 | 0 | **639** |
| **US** | 65,908 | 55,794 | 78,242 | 114,374 | 132,109 | **446,427** |
| **Total world** | 130,617 | 137,920 | 261,521 | 144,960 | 900,273 | **1,575,291** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Podophyllum hexandrum* (Appendix II)

The EU imported 16,570 kg dried plants of *Podophyllum hexandrum* from 1996 to 2000. Japan did not import any specimen of this species and the USA imports were limited to 103 live specimens. World imports were

restricted to EU and US imports, which means that the EU is a main importer at global level of specimens of the species.

The import of specimens of *Podophyllum hexandrum* by the EU consisted of 570 kg dried plants exported from China to Germany in 1999 and of 16,000 kg dried plants exported from China to Germany in 2000. The specimens were of wild origin.

*Saussurea costus* (Appendix I)

Generally, the specimens of *Saussurea costus* imported by the EU concerned derivatives (without any unit specified), with a total of 22,273 for the study period. Additionally, 40 kg derivatives, 20 bags derivatives, 6 cartons derivatives, 20 kg extracts, 50 roots and 20,020 kg roots from this species were imported by the EU. Japan imported 8,259 kg derivatives, 1,000 cartons derivatives and 5,000 kg roots of *Saussurea costus* from China in 1998. No import trade statistics were reported for Japan for the years 1996, 1997, 1999 and 2000, although export trade statistics of significant value were reported. The USA imported a total of 6,984 kg roots, 3,169 kg derivatives, 158 derivatives and 29 kg live specimens from 1996 to 2000. World imports for this five-year period totalled 132,993 derivatives, 31 tons derivatives, 1,006 cartons derivatives, 20 bags derivatives, 827 tons dried plants and 227 tons roots (plus small quantities of dried plants, extracts, live specimens and roots).

In view of the quantities imported at global level, the EU does not feature as a main importer of specimens of *Saussurea costus*, importing only 16% of the number of derivatives and 8% of the kilograms of roots imported worldwide. The main country of import of specimens of *Saussurea costus* at global level is without doubt the Republic of Korea, which is the destination for more than three quarters of the main types of specimens of *Saussurea costus* in trade.

Many different terms and units have been used to describe the import of specimens of *Saussurea costus* by the EU. The units were sometimes missing or were not specific enough (bag, carton), which makes the calculation of the total quantity that entered the EU from 1996 to 2000 more complicated. Generally, the EU imported derivatives (without unit specified), with a total of 22,273 for the period.

The main EU Member States of import were the UK (import of 22,081 derivatives, 20 bags derivatives, 6 cartons derivatives and 40 kg derivatives) and France (import of 20 tons roots and 20 kg extracts). The main countries of origin of the specimens imported by the EU were China (country of origin for 22,273 derivatives, 20 bag derivatives, 40 kg derivatives and 50 roots) and India (country of origin for 20 tons roots and 20 kg extracts). The specimens imported by the EU were artificially propagated, with the exception of small amounts of specimens (20 bags and 6 cartons derivatives and 193 derivatives) that were of unknown source.

*Cibotium barometz* (Appendix II)

Very small quantities of specimens of *Cibotium barometz* were imported by the EU from 1996 to 2000, totalling 1,200 derivatives and 30 bags derivatives. Japan did report any import of specimens at all and the USA reported 50 kg live specimens and 27 live specimens. World imports, however, were quite important, totalling 121,000 kg roots and 213,000 kg dried plants, all imported by the Republic of Korea either from Vietnam or China.

Very small quantities of specimens of *Cibotium barometz* were imported by the EU from 1996 to 2000, totalling 1,200 derivatives and 30 bags derivatives. The only importing Member State was the UK and the only country of origin was China. The specimens imported by the EU were either of unknown origin (30 bags derivatives) or of wild origin (1,200 derivatives).

*Aloe ferox* (Appendix II)

Different terms and units were used in the statistics to describe the specimens of *Aloe ferox* imported into the EU from 1996 to 2000. As the specimen that was imported in the greatest quantities was "kilograms extracts", only this type of specimen was used for further analysis.

The figures clearly show that the EU has a world leading position regarding the imports of kilograms extracts of *Aloe ferox*. Imports of these specimens by the EU amounted 518,360 kg extracts from 1996 to 2000 and represented 70.1% of all world imports. Japanese imports were of smaller significance and accounted for 18.6% of all world imports. This percentage would certainly have been higher if the Japanese import reported data for the years 1999 and 2000 had been included in the trade statistics. USA imports were very small and accounted only for 1.2% of the world imports.

**Table 137. Kilograms extracts of *Aloe ferox* imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 80,297 | 134,417 | 109,985 | 71,744 | 121,917 | **518,360** |
| **JP*** | 0 | 59,055 | 78,500 | 0 | 0 | **137,555** |
| **US** | 1,000 | 4,491 | 3,504 | 25 | 0 | **9,020** |
| **Total world** | 95,928 | 207,115 | 217,229 | 91,532 | 127,417 | **739,221** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Germany and Italy were the only EU Member States that imported kilograms of extracts of *Aloe ferox* from 1996 to 2000. Germany imported 71.7% of the total EU imports and Italy the remainder of 28.3%. The imports by Germany showed an increase from 1996 to 1997, a decrease from 1997 to 1999 and again an increase from 1999 to 2000. The Italian imports seem to be increasing (4.5 times from 1996 to 2000). The only country of origin for the kilograms extracts imported by the EU from 1996 to 2000 was South Africa. All these specimens were of wild orgin.

**Table 138. Main importing EU Member States for kilograms extracts of *Aloe ferox* from 1996 to 2000.**

| Year | Germany | Italy | Total EU |
|---|---|---|---|
| **1996** | 68,282 | 12,015 | 80,297 |
| **1997** | 116,417 | 18,000 | 134,417 |
| **1998** | 94,956 | 15,029 | 109,985 |
| **1999** | 24,106 | 47,638 | 71,744 |
| **2000** | 67,767 | 54,150 | 121,917 |
| **Total** | **371,528** | **146,832** | **518,360** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Hydrastis canadensis* (Appendix II)

Limited quantities of specimens of *Hydrastis canadensis* were imported by the EU from 1996 to 2000, totalling 200 gr derivatives, 4,534 kg dried plants, 6,165 kg roots and 25 kg live specimens. Japan did not import any specimen of *Hydrastis canadensis*, while the USA imported 5 live specimens, 200 roots, 975 kg roots and 227 kg dried plants of the species. . A comparison between the number of kilograms roots (the main part of the plant used for medicinal purposes) of *Hydrastis canadensis* imported by the EU, Japan, the USA and the world shows

that the EU features as one of the main importers for that type of specimen worldwide, with 6,166 kg roots imported during the study period (62.6% of all world imports).

**Table 139. Kilograms roots of *Hydrastis canadensis* imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 0 | 0 | 3,991 | 32 | 2,143 | **6,166** |
| **JP*** | 0 | 0 | 0 | 0 | 0 | **0** |
| **US** | 0 | 0 | 0 | 0 | 975 | **975** |
| **Total world** | 0 | 0 | 5,341 | 1,343 | 3,168 | **9,852** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Limited quantities of specimens of *Hydrastis canadensis* were imported by the EU from 1996 to 2000, totalling 200 gr derivatives, 4,534 kg dried plants, 6,165 kg roots and 25 kg live specimens. The main EU importing Member States were Germany (6,134 kg roots and 200 gr derivatives) and Italy (4,534 kg dried plants). The most important country of origin for specimens of *Hydrastis canadensis* imported by the EU was the USA (4,534 kg dried plants, 4,254 kg roots and 25 kg live specimens). Canada ranked second with 1,911 kg roots imported by the EU. Overall, the specimens involved were either from wild origin (4,354 kg dried plants, 25 kg live specimens and 163 kg roots), of unknown origin (200 gr derivatives and 4,091 kg roots) or artificially propagated (1,911 kg roots).

*Prunus africana* (Appendix II)

Very large quantities of different kind of specimens of *Prunus africana* have been imported by the EU from 1996 to 2000. In total, these imports contained 1,015 tons timber, 1,206 tons bark, 16,020 barks, 1,177 tons extracts and 694 tons powder. Japan only imported 280 gr extracts of this species during the same period, while the USA imported a total of 5,705 kg extracts and 5,565 kg bark. Overall, world imports are of the same high level as EU imports. A comparison between figures of EU imports and world imports for main types of specimens of *Prunus africana* highlights the fact that the EU is the major and nearly exclusive destination of *Prunus africana* specimens in trade.

**Table 140. Main types of specimens of *Prunus africana* imported by the EU and the world from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total | EU% |
|---|---|---|---|---|---|---|---|
| **Timber (kg)** | 0 | 132,316 | 883,481 | 0 | 0 | **1,015,797** | **100.0%** |
| **Bark (kg)** | 538,000 | 648,426 | 20,000 | 5,565 | 200 | **1,212,191** | **99.5%** |
| **Extracts (kg)** | 8,409 | 8,177 | 601,414 | 224,251 | 341,919 | **1,184,170** | **99.5%** |
| **Powder (kg)** | 876 | 0 | 0 | 331,022 | 362,660 | **694,558** | **100.0%** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Large quantities of different specimens of *Prunus africana* were imported by the EU from 1996 to 2000. It is however difficult to determine whether imports have shown any time trends as different types of specimens have been imported at different times. For example, bark imports have mainly taken place in 1996 and 1997, timber imports occurred in 1997 and 1998, while most of the extracts were imported in 1998, 1999 and 2000 and powders almost exclusively in 1999 and 2000. As powder and extracts probably describe the same type of specimen, their figures have been added up to improve the understanding of *Prunus africana* imports by the EU whenever necessary.

**Table 141. Types of specimens of *Prunus africana* imported by the EU from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Timber (kg)** | 0 | 132,316 | 883,481 | 0 | 0 | **1,015,797** |
| **Timber** | 0 | 0 | 2 | 0 | 0 | **2** |
| **Bark (kg)** | 538,000 | 648,426 | 20,000 | 0 | 0 | **1,206,426** |
| **Bark** | 0 | 16,020 | 0 | 0 | 0 | **16,020** |
| **Extracts (kg)** | 8,249 | 8,177 | 601,389 | 223,422 | 336,754 | **1,177,991** |
| **Powder (kg)** | 876 | 0 | 0 | 331,022 | 362,660 | **694,558** |
| **Derivatives (gr)** | 0 | 200 | 0 | 0 | 0 | **200** |
| **Sawn wood (m3)** | 0 | 75 | 0 | 0 | 0 | **75** |
| **Dried plants (kg)** | 0 | 0 | 0 | 1 | 0 | **1** |
| **Carvings** | 0 | 0 | 0 | 0 | 2 | **2** |
| **Set carving** | 0 | 0 | 0 | 0 | 1 | **1** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States for *Prunus africana* specimens were France and Spain. These two countries each imported different types of specimens of *Prunus africana* at different times. France imported 93.4% of the bark of *Prunus africana* imported by the EU in 1996 and 1997 and 100% of the extracts, mainly during the years from 1998 to 2000.

**Table 142. Types of specimens of *Prunus africana* imported by France from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Bark (kg)** | 478,000 | 648,426 | 0 | 0 | 0 | 1,126,426 |
| **Extracts (kg)** | 8,249 | 8,177 | 601,389 | 223,272 | 336,704 | 1,177,791 |
| **Powder (kg)** | 876 | 0 | 0 | 0 | 0 | 876 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Spain imported 100% of the *Prunus africana* timber imported by the EU in 1997 and 1998 and 99.9% of the powder in 1999 and 2000.

**Table 143. Types of specimens of *Prunus africana* imported by Spain from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Timber (kg)** | 0 | 132,316 | 883,481 | 0 | 0 | 1,015,797 |
| **Extracts (kg)** | 0 | 0 | 0 | 150 | 0 | 150 |
| **Powder (kg)** | 0 | 0 | 0 | 331,022 | 362,660 | 693,682 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

There is obviously a correlation between the types of specimens, countries of import and countries of origin. The timber and the powder of *Prunus africana* imported by Spain came exclusively from Equatorial Guinea and Cameroon. France maintained trade relationships for the import of bark and extracts of *Prunus africana* with Kenya, Congo and Madagascar and, to a lesser extent, with Cameroon and Burundi.

**Table 144. Countries of origin for timber (kg) of *Prunus africana* imported by the EU from 1996 to 2000.**

| Timber (kg) | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Cameroon** | 0 | 132,316 | 163,988 | 0 | 0 | **296,304** |
| **Equatorial Guinea** | 0 | 0 | 719,493 | 0 | 0 | **719,493** |
| **Total** | **0** | **132,316** | **883,481** | **0** | **0** | **1,015,797** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 145. Countries of origin for bark (kg) of *Prunus africana* imported by the EU from 1996 to 2000.**

| Bark (kg) | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Kenya** | 300,000 | 300,000 | 0 | 0 | 0 | **600,000** |
| **Congo** | 140,000 | 180,000 | 20,000 | 0 | 0 | **340,000** |
| **Madagascar** | 98,000 | 168,426 | 0 | 0 | 0 | **266,426** |
| **Total** | **538,000** | **648,426** | **20,000** | **0** | **0** | **1,206,426** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

**Table 146. Countries of origin for extracts and powder (kg) of *Prunus africana* imported by the EU from 1996 to 2000.**

| Extracts & Powder (kg) | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Kenya** | 0 | 0 | 450,000 | 200,250 | 50,150 | **700,400** |
| **Congo** | 0 | 825 | 60,000 | 0 | 0 | **60,825** |
| **Madagascar** | 4,581 | 3,176 | 82,619 | 18,034 | 195,119 | **303,529** |
| **Cameroon** | 4,544 | 4,176 | 4,320 | 174,505 | 209,436 | **396,981** |
| **Burundi** | 0 | 0 | 0 | 0 | 20,000 | **20,000** |
| **Equatorial Guinea** | 0 | 0 | 0 | 161,655 | 224,659 | **386,314** |
| **Total** | **9,125** | **8,177** | **596,939** | **554,444** | **699,364** | **1,868,049** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

From 1996 to 2000, significant quantities of specimens of *Prunus africana* left Africa for the EU: 600 tons bark and 700 tons extracts from Kenya were imported by France; 340 tons bark from Congo were imported by the EU, mainly by France, and 60 tons extracts from the same country were imported directly by France; 266 tons bark and 303 tons extracts from Madagascar were imported by the EU, the vast majority by France; 88 tons extracts from Cameroon were imported by the EU mainly by France and 308 tons powder and 296 tons timber from the same country were imported by the EU, the overall majority by Spain; and 386 tons powder and 719 tons timber were imported from Equatorial Guinea to Spain.

Nearly all the specimens of *Prunus africana* imported by the EU from 1996 to 2000 were from wild origin (with the exception of 200 gr derivatives of unknown origin and 2 carvings and 1 set of carvings that were reported to be artificially propagated).

## Leather

The CITES Annual Report trade data that were analysed for the leather sector included skins for the class Mammalia, the order Crocodylia, the family Varinidae and the order Serpentes, listed either on CITES Appendix I, II or III. A seperate analysis was carried out for each Appendix. In case the unit of skins in trade was specified to be "sides", the quantity was divided by two and added together with the numbers of whole skins.

*Mammals Appendix I*

The total number of CITES Appendix I mammal skins imported by the EU from 1996 to 2000 was 1,193. The figures show that there was a peak in 1998 and then a serious decrease in numbers (more than 60% decrease from 1998 to 1999). USA imports, which totalled 1,346 for this five-year period, follow a similar pattern. Japanese imports were limited for 1996 to 1998 and non existent for 1999 and 2000, years for which no import reported data were present. EU imports represented 35.6% of world imports (3,348 skins) from 1996 to 2000, while the US imports represented another 40.2%.

**Table 147. Numbers of CITES Appendix I mammal skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 204 | 180 | 496 | 192 | 121 | **1,193** |
| **JP*** | 2 | 102 | 30 | 0 | 0 | **134** |
| **US** | 96 | 44 | 709 | 272 | 225 | **1,346** |
| **Total world** | 361 | 385 | 1,367 | 554 | 681 | **3,348** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix I mammal skins was undoubtedly Germany, which imported 471 skins (or 39.5% of all skins imported by the EU from 1996 to 2000). Second was Spain with 265 skins (22.2%) and third was Austria with 248 skins (20.8%), of which 236 skins were imported in 1998.

The main countries of origin of CITES Appendix I mammal skins imported by the EU for the period 1996 to 2000 were countries of Southern or Eastern Africa: Zimbabwe, Namibia and Tanzania. Zimbabwe was the country of origin for 340 skins (28.5% of all skins imported by the EU), Namibia for 203 skins (17.0%) and Tanzania for 178 skins (14.9%). In 1998, Austria also imported 234 skins of Appendix I mammals from Slovenia, which represented 20.0% of the total number of skins imported into the EU from 1996 to 2000.

Most of the CITES Appendix I mammal skins imported in the EU for the years 1996 to 2000 were of wild origin. Twenty skins (1.7% of the total number of skins) came from artificially propagated specimens. A significant number of skins (331 skins or 27.7% of the total number of skins) are from unknown source, including the 234 skins imported by Austria from Slovenia in 1998 and 30 skins imported by France from China in 1998 for enforcement purposes. Most of the skins were hunting trophies (743 skins out of 910 skins for which the purpose of the transaction was mentioned).

*Mammals Appendix II*

The total number of CITES Appendix II mammal skins imported by the EU from 1996 to 2000 was 627,272. The figures show that there was an increase in the imports in 1999 (28.6% increase in comparison with 1998) and 2000 (13.3% increase in comparison with 1999). USA imports, which totalled 90,913 skins (14.5% of EU imports), showed a downward trend during this five-year period. Japanese imports were of the same level as USA imports from 1996 to 1998 and were non existent for 1999 and 2000, years for which no import reported data were present. EU imports represented 49.4% of world imports (1,269,269 skins) of Appendix II mammal skins from 1996 to 2000. In addition to the 627,272 Appendix II mammal skins, the EU also imported 2,657 kg

of skins, as well as 399 m of skins, 121 $m^2$ of skins and 22 sides of skins listed on Appendix II from 1996 to 2000.

**Table 148. Numbers of CITES Appendix II mammal skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 111,516 | 122,600 | 105,045 | 135,106 | 153,005 | **627,272** |
| **JP*** | 29,099 | 35,988 | 25,826 | 0 | 0 | **90,913** |
| **US** | 37,552 | 29,908 | 26,287 | 26,377 | 23,923 | **144,047** |
| **Total world** | **267,475** | **261,516** | **209,504** | **221,201** | **309,573** | **1,269,269** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States for CITES Appendix II mammal skins were Germany, which imported 289,673 skins (or 46.2% of all skins imported by the EU from 1996 to 2000), and Italy, with 289,456 skins (or 46.1%). Imports of Appendix II mammal skins into Germany were steady along the years, while Italian imports seemed to be on the increase (67.5% increase from 1997 to 2000).

**Table 149. Main importing EU Member States for CITES Appendix II mammal skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Germany** | 58,375 | 63,197 | 43,944 | 66,086 | 58,071 | **289,673** |
| **Italy** | 51,726 | 48,040 | 50,432 | 58,769 | 80,489 | **289,456** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main countries of origin of CITES Appendix II mammal skins imported by the EU from 1996 to 2000 were two South American countries (Peru and Argentina) and one Asian country (China). Peru was the country of origin for 406,590 skins imported by the EU (64.8% of all Appendix II mammal skins imported by the EU) and Argentina of 96,827 skins (15.4%). A significant number of Appendix II mammal skins was also imported by the EU from China. This was a total of 75,939 skins (12.1%). While imports of Appendix II mammal skins from Peru seemed to be decreasing, imports from Argentina and even more from China have been increasing throughout this five-year period (increase of imports of 90.9% for Argentina from 1996 to 2000, imports nine time superior in 2000 in comparison with 1997 for China).

**Table 150. Main countries of origin for CITES Appendix II mammal skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Peru** | 92,657 | 91,289 | 68,002 | 87,194 | 67,448 | **406,590** |
| **Argentina** | 14,803 | 16,400 | 17,558 | 19,814 | 28,252 | **96,827** |
| **China** | 0 | 4,200 | 9,251 | 17,643 | 44,845 | **75,939** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Most of the CITES Appendix II mammal skins imported by the EU from 1996 to 2000 were of wild origin. A total of 49 skins (0.01%) originated from captive bred specimens and 235 skins (0.04%) were from unknown origin. The purpose of the transactions was commercial trade in most cases (99.2% of the skins imported by the EU).

*Mammals Appendix III*

The total number of CITES Appendix III mammal skins imported by the EU from 1996 to 2000 amounted to 29,278. EU imports have increased throughout the years from 916 skins in 1996 to 11,623 in 2000. There were no import reported trade statistics for the import of Appendix III mammal skins into Japan during the five-year period. USA imports, which totalled 7,085 from 1996 to 2000, have considerably decreased since 1996 (6,004 skins imported in 1996 to 79 in 2000). World imports have varied along the years, but have more than tripled from 1996 to 2000. EU imports represented 43.4% of the world imports. The EU share of world imports has fluctuated during this five-year period, depending on the quantities of skins imported by the USA and China.

**Table 151. Numbers of CITES Appendix III mammal skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 916 | 993 | 5,720 | 10,026 | 11,623 | **29,278** |
| **JP*** | 0 | 0 | 0 | 0 | 0 | **0** |
| **US** | 6,004 | 815 | 9 | 178 | 79 | **7,085** |
| **Total world** | 6,966 | 14,964 | 8,565 | 10,234 | 26,739 | **67,468** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State for CITES Appendix III mammal skins was Italy, which imported 17,659 skins (or 60.3%) of all skins imported by the EU from 1996 to 2000. Two other importing EU Member States of importance were Germany, which imported a total of 8,706 skins (29.7%), and the UK with 2,770 skins (9.5%). Imports of Appendix III mammal skins into Italy seem to have grown rapidly from 1998 to 2000, while German imports increased up to 1999 and then showed a sharp decline in 2000. UK imports fluctuated a lot during this five-year period.

**Table 152. Main importing EU Member States for CITES Appendix III mammal skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Italy** | 0 | 0 | 2,678 | 3,470 | 11,511 | **17,659** |
| **Germany** | 341 | 973 | 3,014 | 4,335 | 43 | **8,706** |
| **UK** | 570 | 3 | 0 | 2,197 | 0 | **2,770** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin for CITES Appendix III mammal skins imported by the EU from 1996 to 2000 was undoubtedly China, the origin for 26,740 skins (or 91.3% of the total number of skins imported by the EU during this period). The number of Appendix III mammal skins exported from China to the EU has been growing throughout the years, more than 13 times higher in 2000 in comparison to 1996. In 1999, the UK imported 2,197 Appendix III mammal skins from Russia, the only number of skins of importance originating from that country (7.5% of all Appendix III mammal skins imported by the EU from 1996 to 2000).

**Table 153. Main countries of origin for CITES Appendix III mammal skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **China** | 879 | 950 | 5631 | 7770 | 11510 | 26740 |
| **Russia** | 0 | 0 | 0 | 2197 | 1 | 2198 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Most of the CITES Appendix III mammal skins imported by the EU from 1996 to 2000 were from unknown origin (68.0%). The remaining came from a wild source (32.0%) and a few skins came from specimens that were bred in captivity (0.05%). There was no purpose of trade mentioned for most of the Appendix III mammal skins (68.0%) imported by the EU during this five-year period.

*Crocodilians Appendix I*

The EU imported a total of 2,295 CITES Appendix I crocodilian skins from 1996 to 2000, which represented 10.2% of the global imports of that type of specimen. The EU import of Appendix I crocodilian skins has fluctuated throughout that five-year period and was at its lowest level in the year 2000 with only 11 specimens imported (at its highest level in 1996 with 1,202 specimens imported). Japanese imports were four times superior to EU imports and would have been even higher if Japanese import reported data would have existed for the years 1999 and 2000. USA imports were of no significance (less than 10 specimens imported per year), except for the year 2000 (2,003 specimens imported). World imports were declining throughout the years, but the decrease would not have been so significant if Japanese import reported data would have been available.

**Table 154. Numbers of CITES Appendix I crocodilian skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 1,202 | 57 | 470 | 555 | 11 | **2,295** |
| **JP*** | 3,545 | 4,366 | 2,344 | 0 | 0 | **10,255** |
| **US** | 4 | 1 | 2 | 3 | 2,003 | **2,013** |
| **Total world** | 5,077 | 5,863 | 4,196 | 4,566 | 2,735 | **22,437** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member States of CITES Appendix I crocodilian skins were France and Italy, which imported nearly equal numbers of specimens in 5 years : 1,172 for France (or 51.17% of all Appendix I crocodilian skins imported by the EU) and 1,079 for Italy (or 47.0%).

**Table 155. Main importing EU Member States for CITES Appendix I crocodilian skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Italy** | 1,074 | 2 | 0 | 3 | 0 | **1,079** |
| **France** | 100 | 50 | 470 | 552 | 0 | **1,172** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main country of origin of CITES Appendix I crocodilian skins imported by the EU was Israel, which was the country of origin for 1,496 skins imported by the EU from 1996 to 2000 (representing 65.2% of all skins imported by the EU during this period). Second was Brazil, country of origin for 352 skins imported by the EU (or 15.3%), followed by Mexico with 176 skins (7.7%), Thailand with 161 skins (7.0%) and Namibia with 100 skins (4.4%).

Most of the CITES Appendix I crocodilian skins imported by the EU from 1996 to 2000 came from specimens that had been bred in captivity (in total 2,190 skins or 95.4% of all skins imported into the EU). Another 100 skins (4.4%) imported from Namibia in 1996 came from ranching operations.

**Table 156. Main countries of origin for CITES Appendix I crocodilian skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Israel** | 944 | 0 | 0 | 552 | 0 | **1,496** |
| **Brazil** | 0 | 2 | 350 | 0 | 0 | **352** |
| **Mexico** | 0 | 50 | 120 | 2 | 4 | **176** |
| **Thailand** | 157 | 4 | 0 | 0 | 0 | **161** |
| **Namibia** | 100 | 0 | 0 | 0 | 5 | **105** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

*Crocodilians Appendix II*

The total number of CITES Appendix II crocodilian skins imported by the EU from 1996 to 2000 was 1,637,733, which represented 22.9% of global imports for that type of specimen. EU imports were first increasing (from 1996 to 1998) and then decreasing (from 1998 to 2000). The decrease was of such a level that the import figure for 2000 was 13.5% inferior to the one of 1996. Japanese imports were three times inferior to EU imports for the period concerned. However, the quantities of Appendix II crocodilian skins imported by Japan would certainly have been higher if import trade statistics reported for Japan for the years 1999 and 2000 would have been available. USA imports were also inferior to EU imports (12.7% of global imports) and were fluctuating throughout the years. In addition to the 1,673,733 skins, the EU also imported some 962 kg of Appendix II crocodilian skins.

**Table 157. Numbers of CITES Appendix II crocodilian skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 293,826 | 331,525 | 421,542 | 336,697 | 254,143 | **1,637,733** |
| **JP*** | 153,197 | 228,677 | 115,366 | 0 | 0 | **497,240** |
| **US** | 192,322 | 116,871 | 154,783 | 228,392 | 220,868 | **913,236** |
| **Total world** | 1,223,893 | 1,498,915 | 1,542,613 | 1,614,825 | 1,286,468 | **7,166,714** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

France was the main destination of CITES Appendix II crocodilian skins imported by the EU. From 1996 to 2000, some 791,248 skins were imported by that country (48.3% of all skins imported by the EU). French imports of that type of specimen showed, however, a sudden decrease of more than 80% from 1999 to 2000. This was probably due to a problem of underreporting of imports of Appendix II crocodilian skins by France, as the level of reported exports to France seemed unchanged from 1999 on. Italy was the second EU destination of Appendix II crocodilian skins with 629,127 skins imported during the five-year period (or 38.4%). Germany imported some 110,453 skins (or 6.7%) and Spain some 92,472 skins (5.7%). These four countries together imported more than 99% of all the Appendix II crocodilian skins imported by the EU from 1996 to 2000.

**Table 158. Main importing EU Member States for CITES Appendix II crocodilian skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **France** | 141,538 | 171,058 | 241,730 | 201,617 | 35,305 | **791,248** |
| **Italy** | 138,504 | 137,355 | 131,232 | 88,210 | 133,826 | **629,127** |
| **Germany** | 4,248 | 4,193 | 25,824 | 33,954 | 42,234 | **110,453** |
| **Spain** | 9,269 | 18,447 | 17,765 | 6,894 | 40,097 | **92,472** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The USA and Colombia were the two main countries of origin for CITES Appendix II crocodilian skins imported by the EU from 1996 to 2000. The USA was the country of origin for 750,189 skins (or 45.8% of all skins imported by the EU during this five-year period) and Colombia for 575,183 skins (or 35.1%). The quantity of skins from the USA destined for the EU dropped dramatically from 1999 to 2000, but this again was due to the poor reporting of imports to France, as the level of reported exports from the USA to France remained high for the year 2000. Other countries of origin of less importance were Venezuela (7.7% of EU imports), Zimbabwe (2.6%), Bolivia (1.6%) and Madagascar (1.1%).

**Table 159. Main countries of origin for CITES Appendix II crocodilian skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **USA** | 125,147 | 153,620 | 194,081 | 180,989 | 96,352 | **750,189** |
| **Colombia** | 123,392 | 96,903 | 159,494 | 105,780 | 89,614 | **575,183** |
| **Venezuela** | 20,783 | 35,299 | 27,345 | 18,519 | 24,484 | **126,430** |
| **Zimbabwe** | 4,792 | 11,844 | 8,544 | 9,826 | 6,795 | **41,801** |
| **Bolivia** | 0 | 15,961 | 1,757 | 0 | 8,000 | **25,718** |
| **Madagascar** | 2,119 | 3,062 | 4,958 | 4,302 | 3,900 | **18,341** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Three quarters (1,213,003 skins) of the CITES Appendix II crocodilian skins imported by the EU from 1996 to 2000 came from captive bred specimens and about 5.4% (88,646 skins) came from animals of ranching operations. Nearly all the other skins were of wild origin.

*Monitor lizards Appendix I*

The EU imported only 15 skins of CITES Appendix I monitors from 1996 to 2000. No other country worldwide reported to have imported this kind of specimen during the same period.

The EU imported very few skins of CITES Appendix I monitors from 1996 to 2000. In 1996, one skin was imported from Algeria by Spain (country of origin and source of the specimen unknown) and, in 2000, 14 skins from Indonesia by Portugal (source of the specimens unknown).

*Monitor lizards Appendix II*

The total number of CITES Appendix II monitor skins imported by the EU from 1996 to 2000 was 1,364,816, which represented 23.6% of the global imports for that type of specimen. EU imports were first steadily decreasing from 1996 to 1999 and then increasing significantly from 1999 to 2000 to such a level that the import figure for 2000 was 46.3% higher than the one for 1996. Japanese imports were approximately 25% superior to EU imports for the years 1996 to 1998, but non existent for the years 1999 to 2000, due to the lack of import trade statistics reported by Japan for those years (reported exports of monitors skins to Japan in 1999 and 2000 were of significant value). USA imports were inferior to EU imports (31.7% of EU imports and 7.5% of global imports), decreasing from 1996 to 1999 and increasing again in 2000.

**Table 160. Numbers of CITES Appendix II monitor lizard skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 356,201 | 196,152 | 154,419 | 136,963 | 521,081 | 1,364,816 |
| **JP*** | 263,952 | 372,822 | 255,529 | 0 | 0 | 892,303 |
| **US** | 120,263 | 94,401 | 79,030 | 48,541 | 90,995 | 433,230 |
| **Total world** | 1,250,535 | 1,359,073 | 1,182,421 | 770,484 | 1,226,709 | 5,789,222 |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The two main importing EU Member States of CITES Appendix II monitor skins were Italy, which imported 462,991 skins (or 33.9% of all skins imported by the EU from 1996 to 2000), and France, which imported 446,371 skins (or 32.7%). Imports of Appendix II monitor skins by Italy increased tremendously in 2000 (the quantity of skins imported more than tripled as compared to 1999). French imports decreased from 1996 to 1999 and increased again in 2000. Two other EU countries of import of Appendix II monitor skins were Spain, with a total of 253,167 skins (or 18.6%), and Germany with a total of 172,863 skins (or 12.7%).

**Table 161. Main importing EU Member States for CITES Appendix II monitor lizard skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Italy** | 59,241 | 11,724 | 41,624 | 78,203 | 272,199 | **462,991** |
| **France** | 188,803 | 76,694 | 51,350 | 23,754 | 105,770 | **446,371** |
| **Spain** | 67,581 | 70,058 | 47,600 | 6,000 | 61,928 | **253,167** |
| **Germany** | 25,112 | 35,100 | 10,100 | 23,141 | 79,410 | **172,863** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main countries of origin of the CITES Appendix II monitor skins imported by the EU from 1996 to 2000 were located in Africa and Southeast Asia: Mali, Sudan, Indonesia, Chad, Cameroon and Malaysia. Mali was the country of origin for 362,763 skins imported by the EU (or 26.6%). Imports from Mali decreased significantly from 1996 to 1999 and increased again in 2000, although the quantity of skins imported from Mali in 2000 was still less than half the quantity imported from that country in 1996. Imports from Sudan totalled 306,211 skins (or 22.4%). As it was the case with Mali, imports from Sudan decreased from 1996 to 1999 (although less dramatically than for Mali) and increased again in 2000. The quantity of skins imported from Sudan in 2000 was, contrary to Mali, nearly three times the quantity of skins imported from that country in 1996.

Indonesia ranked third as country of origin for these specimens and exports to the EU totalled 248,490 (or 18.2%), most of them imported in 1999 and 2000 only. Indonesia featured as a recent, but significant, country of origin for monitor skins imported by the EU. It was the most important country of origin in terms of quantity of skins imported by the EU for 1999 and 2000. Chad and Cameroon were two minor African countries of origin. In total, 181,443 skins from Chad (or 13.3%) and 134,933 skins from Cameroon (or 9.9%) were imported into the EU from 1996 to 2000. As it was the case with Mali and Sudan, imports from Chad and Cameroon decreased from 1996 to 1999 and increasing again in 2000 (very slightly although for Cameroon). Malaysia was another Southeast Asian country of origin for 122,108 skins imported by the EU (or 9.0%). Malaysian imports for 2000 were three time superior than in 1996. It was the third most important country of origin (after Indonesia and Chad) for Appendix II monitor skins imported into the EU in 2000.

**Table 162. Main countries of origin for CITES Appendix II monitor lizard skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Mali** | 136,209 | 70,601 | 68,812 | 24,405 | 62,736 | **362,763** |
| **Sudan** | 49,456 | 39,158 | 38,001 | 32,012 | 147,584 | **306,211** |
| **Indonesia** | 5,845 | 153 | 3,875 | 58,698 | 179,919 | **248,490** |
| **Chad** | 64,086 | 36,265 | 23,533 | 2,030 | 55,529 | **181,443** |
| **Cameroon** | 78,880 | 40,195 | 12,348 | 1,460 | 2,050 | **134,933** |
| **Malaysia** | 21,307 | 9,476 | 6,300 | 18,025 | 67,000 | **122,108** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Nearly all (more than 99%) of the CITES Appendix II monitor skins imported by the EU from 1996 to 2000 were of wild origin (only 113 skins originated from captive bred specimens and 5 skins from unknown origin).

*Snakes Appendix II*

The total number of CITES Appendix II snake skins imported by the EU from 1996 to 2000 was 2,596,646, which represented 36.2% of global imports for that type of specimen. The EU imports first steadily increased from 1996 to 1998, then decreased in 1999 and increased again in 2000. In addition to the 2,596,646 skins, it has to be noted that no less than 136,270 meter of skins also entered the EU during the same period. Japanese imports amounted to 26.9% of EU imports and to 8.5% of global imports from 1996 to 1998, but were non existent from 1999 to 2000, due to the lack of import trade statistics reported by Japan for these two years (reported exports of snake skins to Japan in 1999 and 2000 were however of significant value). USA imports were also inferior to EU imports (21.2% of EU imports and 7.7% of global imports) and fluctuated throughout the years.

**Table 163. Numbers of CITES Appendix II snake skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **EU** | 332,561 | 383,967 | 782,300 | 385,830 | 711,988 | **2,596,646** |
| **JP*** | 135,397 | 150,548 | 117,862 | 0 | 0 | **403,807** |
| **US** | 125,129 | 97,360 | 152,275 | 92,638 | 83,947 | **551,349** |
| **Total world** | 1,066,063 | 1,966,621 | 1,726,568 | 902,676 | 1,514,403 | **7,176,331** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main importing EU Member State of CITES Appendix II snake skins was undoubtedly Italy, which imported 1,670,352 skins (or 64.3% of all skins imported by the EU from 1996 to 2000). These imports by Italy showed a peak in 1998. The number of skins that entered the country that year was two to three times larger than for any other year. Besides the 1,670,352 skins, Italy also imported some 135,795 meter of Appendix II snake skins during that period. Other relevant importing EU Member States were Spain, which imported 414,271 specimens (or 16.0%), Germany, which imported 309,865 skins (11.9%) and the UK, with 185,272 skins (7.1%). Imports into Germany increased tremendously in 2000 (more than five times the quantity of 1999).

**Table 164. Main importing EU Member States for CITES Appendix II snake skins from 1996 to 2000.**

| EU Member State | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Italy** | 210,646 | 314,534 | 624,004 | 205,828 | 315,340 | 1,670,352 |
| **Spain** | 66,222 | 45,681 | 106,457 | 90,028 | 105,883 | 414,271 |
| **Germany** | 11,505 | 13,560 | 22,924 | 40,608 | 221,268 | 309,865 |
| **UK** | 43,748 | 7,089 | 26,218 | 43,127 | 65,090 | 185,272 |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The main countries of origin for the CITES Appendix II snake skins imported by the EU from 1996 to 2000 were all located in Southeast Asia: Malaysia, Indonesia, Thailand and Vietnam. Some 1,092,747 skins came from Malaysia, representing 42.1% of all the skins imported by the EU during that period. Imports from this country have increased in 2000 and were three times superior in 2000 than in 1996. Another important country of origin was Indonesia, which was the country of origin for 673,890 skins imported by the EU from 1996 to 2000 (or 26.0%). As it was the case for Malaysia, the number of skins imported from Indonesia by the EU increased significantly in 2000. Imports from Indonesia of 2000 were 1.4 times higher than imports of 1996. Thailand was another main country of origin and 464,111 skins were imported from that country (17.8%). Imports from Thailand were quite restricted in comparison with imports from Malaysia and Indonesia, except for one year, 1998, when they were very important (48.6% of all skins imported by the EU that year). Imports from Vietnam also seemed rather insignificant compared to imports from Malaysia, Indonesia and Thailand. A total of 81,433 skins were imported from that country from 1996 to 2000 (3.1%). However, Vietnam was also the country of origin for some 135,795 m of skins imported by the EU during that period.

**Table 165. Main countries of origin for CITES Appendix II snake skins imported by the EU from 1996 to 2000.**

| Country | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Malaysia** | 102,702 | 216,233 | 276,823 | 168,622 | 328,367 | **1,092,747** |
| **Indonesia** | 160,394 | 68,176 | 65,743 | 149,459 | 230,118 | **673,890** |
| **Thailand** | 14,628 | 10,046 | 379,992 | 1 | 59,444 | **464,111** |
| **Viet Nam** | 20,439 | 15,315 | 2,462 | 17,346 | 25,871 | **81,433** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Most of the CITES Appendix II snake skins imported by the EU from 1996 to 2000 (94.7%) were of wild origin (as well as 45,568 meter of skins imported by the EU during the same period). A relatively small part of the skins (3.1%) came from specimens that were bred in captivity (as well as 79,904 meter of skins) and another small part of the skins (2.2%) came from unknown source (as well as 427 meter of skins).

*Snakes Appendix III*

The total number of CITES Appendix III snake skins imported by the EU from 1996 to 2000 was 61,694, which represented 76.7% of global imports for that type of specimen. The EU imports were fluctuating throughout the years and were particularly high in 2000. There were no Japanese imports and the USA imports were rather low and equalled to zero for the year 2000.

**Table 166. Numbers of CITES Appendix III snake skins imported by the EU, Japan, the USA and the world from 1996 to 2000.**

| Region | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| EU | 10,000 | 0 | 770 | 2,000 | 48,924 | **61,694** |
| JP* | 0 | 0 | 0 | 0 | 0 | **0** |
| US | 462 | 1,466 | 2,510 | 500 | 0 | **4,938** |
| Total world | 15,313 | 9,466 | 4,280 | 2,500 | 48,924 | **80,483** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

Italy was the main destination for CITES Appendix III snake skins imported by the EU from 1996 to 2000. This EU Member State imported a total of 40,048 skins (64.9% of EU imports) in 2000. The main country of origin was Thailand, the origin for 39,888 skins (64.7% of EU imports). The EU also imported 21,805 skins from Indonesia (35.3% of EU imports). Most of the skins imported by the EU were from unknown source (42,818 skins or 69.4% of the total EU imports). The rest was of wild origin.

## Wool

*Tibetan Antelope Appendix I*

The total number of specimens of Tibetan Antelopes imported by the EU from 1996 to 2000 was 16 garments, 32 skins, 1 trophy and 2 scientific specimens. Japan did not import any specimens of Tibetan Antelopes from 1996 to 1998 (no import reported trade data were available for Japan for the years 1999 and 2000). The USA imported a total of 8 garments, 1 skin, 1 trophy and 89 scientific specimens. World imports included 3 cloths as well as 1 piece of cloth, 41 garments, 10 gr. of hair, 37 skins, 1 skull, 3 trophies and 92 scientific specimens.

**Table 167. Numbers specimens of CITES Appendix I Tibetan Antelope imported by the EU from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Garments** | 0 | 0 | 3 | 10 | 3 | **16** |
| **Skins** | 0 | 0 | 30 | 0 | 2 | **32** |
| **Trophies** | 0 | 0 | 0 | 0 | 1 | **1** |
| **Scientific sp.** | 0 | 0 | 0 | 2 | 0 | **2** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

The importing EU Member States of CITES Appendix I specimens of Tibetan Antelopes from 1996 to 2000 varied: France imported 3 garments and 30 skins in 1998, the UK imported 10 garments and 2 scientific specimens in 1999, Belgium imported 3 garments in 2000, Germany imported 2 skins in 2000 and Spain imported 1 trophy in 2000.

The main country of origin of CITES Appendix I specimens of Tibetan Antelopes imported by the EU from 1996 to 2000 was China. This country was reported as the origin for 32 skins imported by the EU for enforcement purposes and 1 trophy imported by the EU for hunting purposes.

Most of the CITES Appendix I specimens of Tibetan Antelopes imported by the EU from 1996 to 2000 came from unknown source. Only one trophy was reported with wild origin.

*Vicugna Appendix I*

The total number of CITES Appendix I specimens of Vicugna imported by the EU from 1996 to 2000 was 3 m. cloth, 3 live animals and 1 skin. Japanese imports for the years 1996 to 1998 (no import reported trade data were available for Japan for the years 1999 and 2000) totalled 817 gr of hair, 90 gr. of skin/leather items and 2,515 skin/leather items. USA imports totalled 6 garments, 6 unspecified specimens, 1,122 scientific specimens and 360 ml. of scientific specimens. World imports included a large number of different specimens and units: 55 m. cloth, 56 pieces of cloth, 919 gr. of cloth, 240 mgr of cloth, 96 garments, 13 m. of garments, 1,423 gr. of hair, 29 live specimens, 1 skin, 2,515 skin/leather items, 90 gr of skin/leather items, 1,123 scientific specimens and 6 unspecified specimens.

The main importing EU Member States of CITES Appendix I specimens of Vicugna from 1996 to 2000 were Belgium (import of 3 m. cloth), Germany (import of 1 live specimen and 1 skin), Denmark (import of 1 live specimen) and France (import of 1 live specimen).

Switzerland was the country of origin for the 3 live specimens and the skin imported by the EU. The country of origin for the 3 m. of cloth imported by Belgium was unknown. Most of the CITES Appendix I specimens of Vicugnas imported by the EU from 1996 to 2000 were captive bred (3 live specimens and 1 skin). The 3 m. of cloth imported by Belgium were of wild source (trade purpose and country of origin unknown).

*Vicugna Appendix II*

From 1996 to 2000, the EU imported different CITES Appendix II specimens of Vicugna, among others 797 kg of cloth, 7633 kg of fibres, 179 garments and 2369 kg of hair.

**Table 168. Numbers specimens of CITES Appendix II Vicugna imported by the EU from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Cloth (kg)** | 768 | 0 | 29 | 0 | 0 | **797** |
| **Cloth (m)** | 0 | 49 | 0 | 69 | 0 | **118** |
| **Derivatives** | 15 | 0 | 0 | 0 | 0 | **15** |
| **Fibres (kg)** | 3,080 | 751 | 2,050 | 1,752 | 0 | **7,633** |
| **Garments** | 0 | 1 | 12 | 143 | 23 | **179** |
| **Hair** | 0 | 2 | 0 | 0 | 0 | **2** |
| **Hair (kg)** | 0 | 0 | 0 | 362 | 2,007 | **2,369** |
| **Hair (m)** | 0 | 0 | 0 | 0 | 27 | **27** |
| **Hair (m²)** | 0 | 0 | 0 | 49 | 0 | **49** |

*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

From 1996 to 2000, Japan imported different CITES Appendix II specimens of Vicugna, among others 437 garments, 98,77 kg of hair, 22 kg of skin/leather items, 1304 skin/leather items and 696 m. skin/leather items.

**Table 169. Numbers specimens of CITES Appendix II Vicugna imported by Japan from 1996 to 2000.**

| Specimens | 1996 | 1997 | 1998 | 1999 | 2000 | Total |
|---|---|---|---|---|---|---|
| **Fibres (m)** | 0 | 22 | 0 | 0 | 0 | **22** |
| **Garments** | 177 | 129 | 131 | 0 | 0 | **437** |
| **Hair (kg)** | 13.033 | 0 | 85.737 | 0 | 0 | **98.77** |
| **Hair (m)** | 0 | 0 | 3 | 0 | 0 | **3** |
| **Leather pdts (small)** | 0 | 3 | 0 | 0 | 0 | **3** |
| **Skin/leather items (kg)** | 14 | 8 | 0 | 0 | 0 | **22** |
| **Skin/leather items** | 0 | 1,304 | 0 | 0 | 0 | **1,304** |
| **Skin/leather items (m)** | 241 | 258 | 197 | 0 | 0 | **696** |
| **Skin/leather items (m²)** | 0 | 0 | 16 | 0 | 0 | **16** |

* No import trade statistics were reported by Japan for the years 1999 and 2000
*Source*: CITES Trade Data Compiled by UNEP-WCMC, 2002.

From 1996 to 2000, the USA imported a restricted number of CITES Appendix II specimens of Vicugna: 1 plate and 3 garments. From 1996 to 2000, worldwide imports of different CITES Appendix II specimens of Vicugna included, among others, 816 kg of cloth, 7,633 kg of fibres, 620 garments, 2,470 kg of hair, 102 live specimens, 22 kg skin/leather items, 1,304 skin/leather items and 696 m. skin/leather items.

The main importing EU Member States of CITES Appendix II specimens of Vicugna from 1996 to 2000 was Italy, which imported, among others, 797 kg of cloth, 7,633 kg of fibres, 70 garments and 2,360 kg of hair. Germany imported 106 garments. The main country of origin for CITES Appendix II specimens of Vicugna imported by the EU from 1996 to 2000 was Peru, the origin for, among others, 768 kg of cloth, 7,633 kg of fibres, 145 garments and 2,016 kg of hair originated. The EU also imported from Argentina: 353 kg of hair. Most of the CITES Appendix II specimens of Vicugnas imported by the EU from 1996 to 2000 originated from the wild, while 352 kg of hair from Argentina came from captive bred animals and 2 hairs from Hong Kong were from unknown source.

## FAUNA: ECONOMICS AND CONSERVATION ISSUES

**ANNEX III**

### Live specimens and leather & fur of "TOP 10" species imported in the EU in 2000

The following tables and text describe or briefly illustrate, for the "Top 10" species of selected groups of fauna (parrots, birds of prey, reptiles, amphibians, corals, and mammals), reported to be most in trade in the EU in 2000, market trends of volumes and values in recent years, and the status as well as potential threats on wild populations.

### Live Specimens

*Parrots*

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices € Minimum | Prices € Maximum | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Agapornis roseicollis* | Peach-faced Lovebird, Rosy-faced Lovebird | II | - | 20 | 75 | C | 54,736 |
| *Agapornis fischeri* | Fischer's Lovebird | II | Lower Risk, near threatened | 28 | 80 | C | 45,027 |
| *Agapornis personatus* | Black-masked Lovebird | II | - | 31 | 125 | C | 39,247 |
| *Psittacus erithacus* | Grey Parrot | II | - | 520 | 1000 | W | 27,369 |
| *Poicephalus senegalus* | Senegal Parrot | II | - | 100 | 600 | W | 24,733 |
| *Myiopsitta monachus* | Grey-breasted Parakeet, Monk Parakeet, Quaker Parakeet | II | - | 150 | 240 | W | 12,158 |
| *Cyanoliseus patagonus* | Burrowing Parakeet, Patagonian Conure | II | - | 175 | 500 | W | 10,010 |
| *Amazona amazonica* | Orange-winged Amazon, Orange-winged Parrot | II | - | 125 | 2,700 | W | 9504 |
| *Platycercus eximius* | Eastern Rosella, Golden-mantled Rosella | II | - | 70 | 150 | C | 3245 |
| *Psephotus haematonotus* | Red-rumped Parrot | II | - | 40 | 2000 | C | 2311 |

According to data from recent years, half of the top ten CITES parrots species most commonly found in trade in Europe come from the wild. The other half are declared to be bred in captivity, represent 63.3% of the top trade. This has consequences on the prices: the average price paid for specimens coming from the wild is significantly higher than for captive bred ones. This is easily understandable since, for the same demand, the lower the supply the highest the prices offered. Additionally, trade in wild specimens involves higher shipment and handling costs.

Only one species of the most imported listed parrots appears in the IUCN Red List, the *Agapornis fischeri*, endemic to north-central Tanzania and classified at Lower Risk, the species is subcategorised as Near-Threatened, which means that the taxon does not qualify for Conservation Dependent, but is close to qualifying for Vulnerable.

Common in the past, *Agapornis fischeri* suffered an important population decline since the 1970s. The main suspected cause is the widespread trapping for wild bird trade, with large flocks perhaps still occurring only around Ndutu and the Serengeti National Park. In 1987, it was the most commonly traded wild bird in the world and the most popular wild-caught parrot imported into the European Economic Community. Legal trapping for export has now been halted, but the population is still much lower than it used to be, and trade could re-start (Birdlife International, Threatened birds of the world, Lynx Edicions, p. 650). The population of *Agapornis*

*fischeri* is estimated at 290,000 – 1,002,000 and tends to be stable. This suggests that European imports represented 5 to 15% of the estimated total population of *A. fischeri.*

*Psittacus erithacus* was the second most heavily traded parrot in the world from 1982-1989 with annual exports from Africa averaging around 47,400 birds. The EU imported 27,369 specimens of this species in 2000. The trade in *Psittacus erithacus* is considered to be the main cause of its decline, but it is also impacted by other threats, such as forest destruction and especially the loss of large nesting trees. Important decline in populations were reported throughout its range, among range States are Liberia, Ghana, Sierra Leone, Ivory Coast, Nigeria, Congo, Cameroon, Gabon, Príncipe, Central African Republic, Zaire, Uganda and Kenya where it has been extirpated from several forests and currently virtually known from Kakamega Forest only, where although locally common in 1980's, only 10 reportedly survived in mid-1990's.

The other species, *Poicephalus senegalus, Myiopsitta monachus, Amazona amazonica, Platycercus eximius, Psephotus haematonotus*, aren't globally threatened and remain common to very abundant in the wild. Some of them have benefited from human activities. *Psephotus haematonotus*, for example, is currently common, although in the early twentieth century it was reportedly declining due to overgrazing and a disease outbreak, in the second half of the century it was found to have expanded its range, apparently in response to forest clearance for agriculture. The same benefited to *Platycercus eximius.*

Some species, even if they are not endangered, suffered a decline in their populations due to the trade. For instance, exports of thousands of *Agapornis roseicollis* greatly contributed to the decline of Southern Angola populations.

*Amazona amazonica*, abundant throughout most of its extensive range, considered in many places as the most common large parrot, and classified as a pest in Trinidad & Tobago. Deforestation has caused some declines in east Brazil, "sport" hunting has reduced numbers in Surinam and the same activity is also excessive in French Guiana. Very heavily trapped in parts of its range, with Guyana as source of most of the birds traded international (66,615 in years 1981-1985), and probably high levels of domestic consumption, e.g. in Venezuela.

*Cyanoliseus patagonus*, formerly very common but now only in encountered in fragmented populations, and further declining due to increasing chasing as crop pest (officially declared as such under Argentine law in 1984), and related exploitation for pet trade (pest status excluding it from the country's general 1986 ban on wildlife trade); its colonial nesting habit renders it particularly vulnerable to overexploitation and human interference. There were no export quotas until 1991, when they were set at 9000 in 1992 and 7200 in 1993, the race *andinus* being recommended for exclusion from this exploitation.

*Myiopsitta monachus* has increased its settlements (now encroaching into the pampas where eucalypts are planted), and is now often regarded as a major pest. From 1985 to 1989, 82 442 birds were exported from Argentina, and 1993 exports totalled 24 000 birds. This was regarded as high. It adapted to other environments and is expanding in range and numbers in North America and Europe, with some concern that it will become a pest (Handbook of the Birds of the World, Vol. 4 Sandgrouse to Cuckoos, Birdlife International, Lynx Edicions, Edited by Josep del Hoyo, Andrew Elliott, Jordi Sargatal).

***Birds of prey* (see table below)**

Based on recent years imports in the EU, 76.7% of the top ten CITES birds of prey in trade come from the wild, 23.3% (or 75 live animals) are bred in captivity.

The species appearing in the top ten CITES birds of prey in trade are not globally threatened, none of them appears in the IUCN Red List. Most generally, the trade is not the most important threat for birds of prey that are facing several other threats. Over most of the 19th and early 20th centuries birds of prey around were perceived as a threat to game and livestock and large numbers were therefore killed and eggs collected.

Although from 1950–1975 many countries passed laws to protect them, they still suffer systematic elimination by poisoning and nest robbing. Habitat loss also reduced the birds' food supply and nesting sites. Wide-spread use of pesticides (e.g. DDT) led to disappearance of populations in '50s & '60s.

*Falco peregrinus* is the only species listed in Appendix I. All specimens of this species imported in the EU are declared captive bred, but for only 6.5% of live specimens the source was reported.

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum | Maximum | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Glaucidium brasilianum* | Ferruginous Pygmy-Owl | II | - | - | - | W | 93 |
| *Buteo albonotatus* | Zone-tailed Hawk | II | - | - | - | W | 42 |
| *Buteo polyosoma* | Red-backed Hawk; | II | - | - | - | W | 42 |
| *Falco sparverius* | American Kestrel | II | - | - | - | W | 39 |
| *Gyps africanus* | African White-backed Vulture; White-backed Vulture | II | - | - | - | W | 16 |
| *Asio clamator* | Striped Owl | II | - | - | - | W | 11 |
| *Accipiter gentiles* | Northern Goshawk | II | - | - | - | W<br>C | 4<br>5 |
| *Falco peregrinus* | Duck Hawk, Peregrine, Peregrine Falcon | I | - | - | - | C | 50 |
| *Buteo rufofuscus* | Jackal Buzzard | II | - | - | - | C | 10 |
| *Hieraaetus fasciatus* | Bonelli's Eagle | II | - | - | - | C | 10 |

*Glaucidium brasilianum*, in USA, has declined drastically during 20th century; in Texas (lower Rio Grande Valley), once generally distributed in riparian trees, brush, palm and mesquite thickets, now limited to remnant mesquite thickets and listed as threatened. In Central and South America, considered wide-spread; fairly common to locally common in Panama, Colombia, Costa Rica; in some countries the only common pygmy-owl. Occurs in a considerable number of protected areas in most countries throughout its extensive range. In South America, this species and other *Glaucidium* are kept as cage-birds in belief that it brings luck and success in love.

*Buteo albonotatus*, rather patchy distribution, but widespread and locally common. Relatively common in NE Brazil; apparent local distribution in Colombia. Tendency to use wide variety of habitats, together with extensive range, suggests species secure at present.

*Buteo polyosoma*, status poorly known, but in general appears to be relatively secure, and locally common e.g. EC Ecuador. Apparently declining in Chile.

*Falco sparverius*, ubiquitous and overall perhaps the most common falconid of the New World. Expanding range and increasing numbers in many regions, invading urban areas, but decreasing in parts of SE USA, because of habitat alterations. No reliable estimates for most of Neotropical range.

*Gyps africanus*, the most common African griffon-like vulture of savanna and woodland, particularly in Transvaal. Subject to some killing, poisoning and range reduction in parts of S, C and NE Africa, but has also expanded to adopt power pylons as nest-sites in S Africa.

*Asio clamator*, widespread, though local and uncommon, or patchily distributed; status generally poorly known, and little information on ecology and biology. race *oberi* little known, may even be extinct.

*Accipiter gentiles*, significant decline in Europe during 19th century and part of 20th, mainly due to killing and deforestation; subsequent trends generally less regular, but sharp drop in 1950's and 1960's, particularly in W Europe, linked with pollution by pesticides and heavy metals. Despite continued killing and nest robbing for

falconry, in '80s and '90s species tending towards stabilization or recovery: in much of former USSR, in North America, in Ukraine, in Japan, in Britain and most European countries from Scandinavia to the Mediterranean.

*Falco peregrinus* were taken off the endangered species list in August 1999. They are currently still bred in captivity for release into the wild and for falconry (The Raptor Center, University of Minnesota).

*Buteo rufofuscus*, common, at 1 bird/62 km on road transects through karooid steppe, and at densities of 1 pair/17-30 km² in mountainous Transvaal habitats in South Africa, where estimated 1100 pairs. Prefers areas are low human density and extensive small-stock farming. Not known to be affected by pesticides.

*Hieraaetus fasciatus*, in decline in Europe, with some regional stabilization, but suspected to be vulnerable to competition with *A. chrysaetos* and *A. adalberti* in Spain and some other areas in Western Europe, where perhaps up to 116 pairs disappeared in the '80s. Almost extinct in former USSR and widely distributed but rare or uncommon in Indian Subcontinent. Causes of decline are not wholly understood, but species obviously affected by direct killing and accidents with power lines causing the highest mortality, particularly amongst juveniles; also important are degradation and transformation of habitat, reduction in prey species, and a large increase in human interference and disturbance in breeding areas (Handbook of the Birds of the World, Vol 2 & 5, Birdlife International).

***Live Reptiles* (see table below)**
*Iguana iguana* represents the most important traded species, it represents alone 71,9% of all EU imports of the top ten CITES listed reptiles, but only 4% of the specimens are declared from wild sources. Similarly as for live birds, prices are generally higher for specimens coming from the wild.

*Python molurus bivittatus*: Wide spread throughout its range but declining in numbers. Major threats: habitat loss through land clearing for agriculture and illegal hunting for skin. Used extensively for the skin trade. When encountered in the bush it is immediately killed for its skin, meat or the simple fact that it is a snake. (http://www.newenglandreptile.com/CareInfo/CareBurm.html)
(http://www.amnh.org/nationalcenter/Endangered/python/python.html)

*Boa constrictor*: Not included in IUCN Red List but habitat destruction represents a worldwide threat to the species. The status of populations of *Boa constrictor* in the wild is not well-known, but it became very rare in some parts of its range. Export for the pet trade and hunting for its skin are the two additional known threats to its survival, as is the case for many reptiles.
(http://www.zoo.org/educate/fact_sheets/day/boa_c.htm Conservation connection).

*Geochelone sulcata*, taxon classified as Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future. An observed, estimated, inferred or suspected reduction of at least 20% over the last 10 years or three generations, whichever is the longer, based on a decline in area of occupancy, extent of occurrence and/or quality of habitat; and actual or potential levels of exploitation.

*Live Reptiles* (continued)

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum | Maximum | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Iguana iguana* | Common Iguana, Green Iguana | II | - | 25 | 200 – 7873 *albino | C | 131,893 |
| *Python regius* | Ball Python, Royal Python | II | - | 44 | 1531 | R (87) W (13)[1] | 27,379 |
| *Python molurus (bivittatus)* | Asiatic Rock Python, Burmese Python, Tiger Python | II | Lower risk, near threatened | 80 | 475 | C | 3697 |
| *Chamaeleo senegalensis* | Senegal Chameleon | II | - | 44 | 79 | R | 5660 |
| *Varanus exanthematicus* | African Large-grain Lizard, African Savanna Monitor, Bosc's Monitor, Northern Savanna Monitor | II | - | 30 | 140 | W | 3006 |
| *Geochelone sulcata* | African Spurred Tortoise, Grooved Tortoise | II | Vulnerable (A1cd) | | 201.96 | C (75%), F (15%), R (8) | 1944 |
| *Boa constrictor* | Ampalagua, Boa Constrictor, Giboya, Masacuate | II | - | 80 | 345 | C | 3008 |
| *Kinixys belliana* | Bell's Hinged Tortoise, Bell's Hinged-backed Tortoise | II | - | 37 | 350DM | R | 3064 |
| *Python reticulatus* | Java Rock Python, Regal Python, Reticulated Python | II | - | 125 | | W (65), C (35) | 1223 |
| *Testudo hermanni* | Hermann's Tortoise | II | Lower risk, near threatened | 100 | 200 | C | 2578 |

*Amphibians*

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum | Maximum | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Ambystoma mexicanum* | Axolotl | II | VU D2 | - | - | C | 2470 |
| *Dendrobates tinctorius* | Dyeing Poison Frog | II | - | 50 | 97.1 (C) | W<br>F | 728<br>86 |
| *Dendrobates auratus* | Green Poison Frog, Green-and-black Poison Frog | II | - | 30.96 | 75 (C) | W<br>C<br>R | 5<br>300<br>146 |
| *Dendrobates pumilio* | Flaming Poison Frog, Red-and-blue Poison Frog | II | - | - | - | R | 362 |
| *Phyllobates vittatus* | Golfodulcean Poison Frog, Orange-and-black Poison Frog | II | 35 | 36.12[2] | - | C | 120 |
| *Epipedobates boulengeri* | Marbled Poison Frog | II | - | - | - | C | 120 |
| *Phobobates trivittatus* | Three-striped Poison Frog | II | - | - | - | C | 197 |
| *Dendrobates leucomelas* | Yellow-banded Poison Frog | II | 43.5 | 45 (C) | - | W<br>C | 25<br>12 |
| *Epipedobates tricolor* | Phantasmal Poison Frog | II | - | - | - | W | 25 |
| *Phyllobates terriblis* | Golden Poison Frog | II | - | | | F<br>C | 14<br>16 |

C= 69.9%; W=16.9%; F=2.16%; R=10.9%; Prices only for captive bred.

*Corals*

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum Small | Maximum Large | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| ***Acropora* spp.** | - | II | - | 31.65 | 143 | W | 8192 |
| ***Heliofungia* spp.** | - | II | - | 11.78 | 59 | W | 6581 |
| ***Pavona* spp.** | Leaf Coral; Potato-chip Coral | II | - | 35 | 56 | W | 1514 |
| ***Stylophora* spp.** | Bush Coral, Club Finger Coral | II | - | 24.34 | 63 | W | 1143 |
| ***Seriatopora* spp.** | Birdsnest Coral; Brush Coral | II | - | 24.71 | 34.25 | W | 990 |
| ***Fungia* spp.** | Mushroom Coral | II | - | 11.69 | 32 | W (97.7 %)<br>C (2.3%) | 850<br>20 |
| ***Pocillopora* spp.** | - | II | - | 23.97 | 67 | W (97.6%)<br>C (2.3%) | 851 (831 and 20) |
| ***Polyphyllia spp.*** | Mole Coral | II | - | 13.95 | 14.61 | W | 582 |
| ***Montipora* spp.** | Pore Coral, Velvet Branch Coral, Velvet Coral | II | - | 19.28 | 51.93 | W | 580 |
| ***Galaxea* spp.** | Crystal Coral, Galaxy Coral, Starburst Coral, Tooth Coral | II | - | 12.62 | 45 | W | 572 |

[2] T&C Terrariums website (http://home.att.net/~a.j.calis-i/animals.html), captive bred

## Leather and Fur

Fluctuations of leather and fur markets often follow fashion trends, but they also depend on the availability of supplies that rely on the status of populations in the wild.

*Reptile skins*

Of all reptile skins produced from the top ten CITES taxa recorded in EU imports, 88,5% are declared from wild specimens and 21.9% are of species (*Alligator mississippiensis, Caiman crocodilus fuscus* or *Python molurus (bivittatus)*) listed in the IUCN Red List as being at Lower Risk.

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Min. | Max. | Captive Bred (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Python reticulatus* | Java Rock Python, Regal Python, Reticulated Python | II | - | - | - | W | 406,032 |
| *Varanus niloticus* | African Small-grain Lizard | II | - | - | - | W | 247,519 |
| *Varanus salvator* | Common Water Monitor, Malayan Monitor Ring Lizard, Two-banded Monitor, Water Monitor | II | - | - | - | W | 247,315 |
| *Alligator mississippiensis* | American Alligator | II | Lower risk, least concern (source: Crocodilian species list website) | - | - | C(67), W(21), R(9)[3] | 214,522 |
| *Tupinambis teguixin* | Banded Tegu, Black Tegu, Common Tegu | II | - | - | - | W | 171,399[4] |
| *Ptyas mucosus* | Common Rat Snake, Dhaman, Oriental Rat Snake | II | - | - | - | W | 128,237 |
| *Tupinambis rufescens* | | II | - | - | - | w | 128,097 [4] |
| *Caiman crocodilus fuscus* | Brown Caiman, American Caiman (source: Crocodilian species website) | II (source: Crocodilian species website) | Lower Risk, least concern (source: Crocodilian species list website) | - | - | C | 127,743[5] |
| *Python curtus* | Blood Python, Short-tailed Python | II | - | - | - | W | 87,220 |
| *Python molurus (bivittatus)* | Asiatic Rock Python, Burmese Python, Tiger Python | II | Lower risk, near threatened | - | - | C(68), W(32) | 54,892 (and 5,000 m of skin) |

All pythons have been included in CITES Appendix II since 1975. For the three species most traded, minimum net imports of South-east Asian python skins from 1980 to 1987 calculated from CITES annual reports increased over most of this period, but *Python reticulatus* was traded in the greatest quantities, with nearly 500,000 skins recorded in 1986. Trade in *Python molurus bibittatus* reached a peak of over 190,000 skins in 1985 and subsequently declined, while less than 50,000 *Python curtus* skins were traded annually (Pythons in South-East

[3] But the International Alligator Crocodilian Trade Study (IACTS) 2001 report states that less than 5% of Alligator exports from the USA are actually captive bred, the rest being ranched (Caldwell, 2001).

[4] *Tupinambis* values include an estimated figure based on trade reported as *Tupinambis* spp.

[5] The figure is an estimate of the number of whole animals skins involved, i.e. two sides converted to one skin

Asia, A review of distribution, status and trade in three selected species, B. Groombridge and R. Luxmoore, 1991, CITES).
In the mid '80s, prices of python skins were highly driven by fashion and fluctuated substantially. The skins were extremely popular in 1985, but the price rose too high and manufacturers turned to different skins. Having geared up the industry to such other species, e.g. *Varanus salvator*, it has been slow to revert to using pythons even though their skins have gone out of fashion while those of lizards have come in, causing a 50% rise in *Varanus salvator* skins from 1987 to 1989. Nevertheless, finished python skins always were more valuable and in the '80s they were sold at two to three times the value of lizards skins. In the '80s, the great majority of *Python reticulatus* skins came from Indonesia, Thailand was the second most important source, followed by Malaysia and the Philippines. Most *Python molurus* skins came from Thailand. Virtually all skins of *Python curtus*, famous in US cowboy boots markets, originated in Indonesia.

Wild populations of *Python molurus bibittatus* are declining, for several reasons. They have long been favourites of humans, either for show in parks or exploitation, often because of their large size and shiny skin colorations. *Python molurus bibittatus* is one of the most popular pet snake in the world, as well as one of the most highly demanded source of meat in the Asia far east (http://www.rhrwildlife.com/theanimals/p/pythonburmese/) gourmet food trade (Coborn 1).

*Varanus niloticus*, between 1980 and 1985 trade in live specimens averaged 816 specimens per year whilst trade in skins averaged over 400,000 per year. In 1988 more than 700,000 skins were exported (Luxmoore & Groombridge 1990; Buffrenil 1992). Most skins are exported from Mali, Nigeria, Cameroon and Sudan to Europe, particularly France.

The major threat to *Caiman crocodilus* and its subspecies *Caiman crocodilus fuscus* is currently illegal hunting. Smuggling groups operating through Thailand and Singapore cause heavy damages to individual populations, and more effective legislation associated with greater control measures are needed. Little research has been undertaken on the subspecies *C. c. fuscus*. Surveys reveal populations to be very low in Colombia, Ecuador and Venezuela, and of uncertain status throughout the rest of the subspecies' range. More data are required from these areas to determine the best course of conservation action. The primary threats are habitat destruction and, in some areas, illegal hunting. Fully protected in several countries (Ecuador, Mexico, Venezuela) the species benefits of hunting restrictions in force in others (Colombia, Panama). However, as with all crocodilians in developing countries, protection is rarely enforced effectively. Although the potential for captive breeding exists, this status is uncertain. Populations in Cuba and Puerto Rico are thought to be of *C. c. fuscus*, which would mean that the subspecies is predominant in the legal pet trade, but this needs to be verified (Crocodilian Species Group).

Alligator mississippiensis' estimated wild population is over 1,000,000. It is widely distributed and abundant throughout most of its range. The belly skin of the alligator in general produces a high-quality leather, and this resulted in considerable hunting pressure earlier in the 20th century, particularly in Florida, Louisiana and Texas. While populations were severely affected in the early parts of the century (with protection occurring in the early 1960's), the recovery of this species has been remarkable in most areas thanks mainly to properly controlled and monitored conservation and sustainable use (e.g. tourism, harvesting) programs. Good management programs, including water management, and the development of alligator farming and ranching, particularly in Florida and Louisiana, started in the '60s. Thanks to these measures, trade is no longer a threat to the species and the only remaining threat to alligators is the loss and deterioration of habitat due to expanding agriculture, residential development, pollution and water diversion. Since the late '80s, most specimens in trade are declared of captive bred or ranched sources. In 1979, IUCN decided to classify alligators in a lesser threaten category, while CITES Appendix II classification remains to assist control in trade of other crocodilian species whose skins are similar in appearance.
The difference between the historical hunting that nearly led to extinction and modern harvest programs relies on the establishment of strict quotas and controls that prevent wild populations from being adversely affected. For instance, ranching programs must usually return a high percentage (17% in Louisiana) of juveniles back into wild populations, until the monitoring of the recovery in these areas revealed that further reintroduction was likely unnecessary. In Florida, the results of harvesting have shown that up to 13% of sub-adult to adult animals, plus all the eggs from 50% of all located nests, can be safely removed from the alligator population annually

without affecting population stability. These kinds of figures are vital for proper management programs of alligators and other species. Therefore, and although alligators proved to be highly resilient to both natural and induced mortality, cropping is only allowed from certain populations, protecting peripheral populations that are still recovering.

*Mammal skins* **(see table below)**
All specimens of the top ten mammal skins of CITES species imported in the EU in 2000 were declared from the wild. None of them appear in the IUCN Red List, even if locally some species are considered as endangered.
Prices are difficult to estimate because only finished products' (prices of shoes, jackets, shoes, belts, wallets, etc.) prices are available. It's then very difficult to estimate prices of the respective original hides.

One important species in trade for hides is peccaries. Peccary hides constitute an important export commodity for South American countries, such as Argentina, Bolivia and Peru. Traditionally, the former Federal Republic of Germany was the primary importer of peccary hides, which are used mostly for equestrian leathers, especially gloves. The use of these hides for this purpose, as opposed to more popular but ephemeral fashion accessories, has created a relatively stable market. Germany still dominates this market, but Italy and the USA have imported increasing numbers of hides in recent years.
*Pecari tajacu*, the collared peccary is the most abundant, widely distributed and the least threatened of the three peccaries. Other species are the white-lipped peccary, *Tayassu pecari* and the giant or Chacoan peccary, *Catagonus wagneri*. Their geographical range is vast, from the southern USA through to northern Argentina. The destruction and fragmentation of habitat is undoubtedly the most important threat to this species, though overexploitation by subsistence and commercial hunters has also contributed to its decline in many areas. Although they are still being hunted extensively for their meat and hides, and much of their natural habitat is being destroyed, some experts claim they do not currently need high conservation attention. The status of all populations requires monitoring given the continuing rates of habitat destruction and potential overexploitation for its valuable skin. These factors have already resulted in the extensive fragmentation of peccary populations and its extirpation over large parts of its former range. They are already extinct in Uruguay and El Salvador.

*Prionailurus bengalis chinensis* are common (relative to other felids) across much of their range. In China, the centre of its range, commercial exploitation has been heavy, especially in the south-west (Yu Jinping *in litt.* 1993). Exports from China raised in 1984, averaging roughly 200,000 skins annually through 1989 (WCMC, unpubl. data). The actual harvest is much higher: a 1989 survey of major Chinese fur companies revealed estimated stockpiles of over 800,000 pelts (Yu and Wozencraft, in press). While harvests of leopard cat have been significant in the past, averaging 150,000 annually from 1955-1981 (Lu and Sheng 1986), the annual take from 1985-1988 is believed to be higher, estimated to about 400,000 (Yu Jinping *in litt.* 1991). The European Community, formerly the primary destination for leopard cat pelts exported from China, imposed an import ban in 1988, and Japan became the main consumer, at a lower level, importing 50,000 skins in 1989 (Johnson and Fuller 1992). There was also a substantial domestic Chinese market (Johnson *et al.* 1993a). Concern over the situation in China grew within CITES, and a project to investigate the status of the species and advise the Chinese government on a sustainable management program was discussed in the early '90s (Johnson and Fuller 1992, Johnson *et al.* 1993).
The leopard cat appears to be more tolerant to deforestation and habitat alteration than other Asian felids, with the exception of the jungle cat. However, island populations proved to be most vulnerable. In the Philippines, where the current status of the forests is arguably the worst in tropical Asia (Collins *et al. 1991*), the leopard cat is certainly in trouble (Cox 1988). It has perhaps been extirpated from Cebu, which is largely deforested, and has probably been eliminated from most of its former range on other islands (W. Oliver *in litt.* 1993). In Japan, on the Tsushima islands, leopard cats are estimated to number less than 100, down from perhaps 200-300 individuals in the '60s-'70s (M. Izawa *in litt.* 1991). On Taiwan, they are seldom caught in the traps set by aboriginal hunters (Nowell 1991). Hunting and trade are regulated in South Korea, Laos and Singapore. Hunting is prohibited in Bangladesh, Hongkong, India, Indonesia, Japan, Malaysia (except Sabah), Myanmar, Nepal, Pakistan, Russia, Thailand and Taiwan. Captive breeding programmes are being developed for the populations on Tsushima (Japan: T. Doi *in litt.* 1993) and Negros islands (Philippines: E. Alcala pers. comm.).

*Status Survey and Conservation Action Plan Wild Cats*, compiled and edited by Kristin Nowell and Peter Jackson, IUCN/SSC Cat Specialist Group, 1996

| Scentific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum | Maximum | Captive Breed (C) or from the Wild (W) | EU Imports (2000) |
|---|---|---|---|---|---|---|---|
| *Pecari tajacu or Tayassu tajacu* | Collared Peccary | II | - | - | - | W | 55,521 |
| *Prionailurus bengalensis (chinensis)* | Leopard Cat | II | - | - | - | W | 44,845 (and 1100 plates) |
| *Tayassu pecari* | White-lipped Peccary | II | - | - | - | W | 19,800 (and 270 kg of skins) |
| *Pseudalopex griseus* | Argentine Grey Fox, Chico Grey Fox, Chiloe Fox, Grey Zorro, Little Fox, Pampa Fox | II | - | - | - | W | 10,336 (and 3005 kg of skins) |
| *Conepatus humboldtii* | Humboldt's Hog-nosed Skunk, Patagonian Hog-nosed Skunk | II | - | - | - | W | 9970 |
| *Lynx rufus* | Bay Lynx, Bobcat | II | - | - | - | W | 4425 (and 100 plates) |
| *Lynx canadensis* | American Lynx, Canada Lynx | II | - | - | - | W | 3487 |
| *Lontra canadensis* | North American Otter, North American River Otter | II | - | - | - | W | 2274 |
| *Arctocephalus pusilus* | Afro-Australian Fur Seal, Cape Fur Seal, South African Fur Seal | II | - | - | - | W | 801 |
| *Equus zebra hartmannae* | Hartmann's Mountain Zebra | II | - | - | - | W | 321 |

*Pseudalopex griseus* suffered major losses due to the fur trade, although it does have some degree of government protection - apparently not always effective. It has also suffered competition from the much larger *culpeo* that expanded into its range.

*Pseudalopex griseus* The number of skins of Argentine Grey Fox () exported according to CITES for the years 1980 to 1983 was 381,000, 98% of which were purported to have originated in Argentina. Over 7000 skins were recorded as being exported from Chile, despite the species being protected in that country. Most exports were made to West Germany (72%), Switzerland (7.2%), and Italy (4.4%) (IUCN 1988; see Chapter 9). Threats to this species are persecution as a livestock and poultry predator in Chile. In Argentina and Chile the "grey zorro" *P. griseus* is considered as generally scarce to locally common. It is wide-spread throughout Patagonia from the straits of Magellan to Chubut province and northwards, mainly in lowlands and foothills of coastal mountain ranges. On the Malvinas/Falkland Islands, it is found on several small islands (Weddell, Statts, Beaver, Tea, River, and Split). A population introduced in Tierra del Fuego in 1951 is apparently thriving. Protected by law in Chile (Iriate and Jaksic 1986), but enforcement is lax. No hunting or commercialisation has been permitted since 1929. The Argentine Wildlife Board (Direccion Nacional de Fauna Silvestre) has classified the species as endangered (*"en peligro"*). Hunting is banned year-round in the following provinces: Catamarca, Neuquen, Salta, Entre Rios, Tucuman, and La Rioja. In Rio Negro and Tierra del Fuego, the species is considered an economically important species (pelt exports), while in Ninguna Province, the "grey zorro" is treated as a pest species (IUCN/SSC Canid Specialist Group's, http://www.canids.org/SPPACCTS/sppaccts.htm)

*Lynx rufus*, In the last 20 years, the bobcat has been the most heavily harvested and traded of the cat species. World demand for bobcat fur rose gradually in the late 1960s and early 1970s and jumped in the mid-1970s after CITES entered into force, when the pelts of cats listed on Appendix I became legally unobtainable for the

commercial fur trade. Prices offered trappers for bobcat pelts increased sharply from a pre-1970 high of USD 20 to between USD 200-300 and as high as USD 600 in 1979 (Nilsson *et al.* 1980, Johnson 1990). The number of bobcats killed annually in the US climbed to over 90,000 in the 1980s (Govt. of US 1983a); in the 1950s and 1960s about 10,000 bobcats were taken annually in the US, increasing to about 44,000 in the 1970s (Johnson 1990). From 1976-1983, Canada reported an average annual harvest of 3293 bobcats (Govt. of Canada 1983, Shieff and Baker 1987). Although Mexico permits hunting, there is essentially no documented international trade in bobcats from that country (Govt. of US 1992, WCMC unpubl. data). Trade in bobcat pelts started to decline in the late '80s. Starting in 1988 harvest and export of bobcat pelts dropped due to both market shrinkage and market saturation overseas. In addition, the European Community announced that a prohibition on all imports of furs from countries allowing the use of leghold traps would enter into force in January 1996. Europe is the primary market for bobcat pelts, importing 92% of North America's total overseas exports in 1990 (WCMC unpubl. data). Leghold trap was the main commercial hunting technique used to catch bobcats in North America (Baker and Dwyer 1987, IFTF 1989).

The economic importance of the trade to the North American range states led to a dramatic rise in research, particularly in the US, with a ten-fold increase from the 1960s to the 1970s in studies on population structure, status and distribution (Anderson 1987). The degree to which the bobcat has been studied and managed in North America on both the local and national levels make it probably the most thoroughly examined species in international trade today (Thomsen and Luxmoore 1990, Johnson 1990; and IUCN/SSC Cat specialist group). Despite the volume of research, there was still concern over whether commercial trapping as practiced in North America is sustainable.

In the early 1980s, state wildlife authorities estimated the total US bobcat population to range between 725,000 to 1 million adult animals (Govt. of US 1983a). Bobcats are also considered to be generally widespread and healthy in the Canadian (Govt. of Canada 1983) and Mexican (Govt. of US 1992, M. Aranda *in litt.* 1993) parts of their range, although hunting and trapping may have led to some local depletions (González and Leal 1984; G. Mowat *in litt.* 1993). Bobcats persecution is uncommon except in central Mexico where the bobcat is reputed to be a major predator of sheep (Govt. of US 1983a), and persecution by ranchers is more frequent (Woloszyn and Woloszyn 1982, González and Leal 1984). The dry scrub and oak and pine forest habitats used by bobcats in Mexico have suffered the highest rates of transformation and degradation relative to other habitat types (Flores-Villela and Fernádez 1989).

Hunting and trade are regulated throughout most of its range: on a regional level, in the US the bobcat is totally protected in 10 states; in Canada, nowhere; and five states in Mexico. Shooting of suspected livestock predators is permitted on a limited basis (Govt. of US 1983a, Govt. of Canada 1983; M. Aranda *in litt.* 1993).

*Lynx canadensis*, its status is generally satisfactory (Quinn & Parker 1987; Government of Canada 1988).

The main US lynx population is found in Alaska. Elsewhere, they are more sparsely distributed, occurring in low numbers in the states of Washington, Montana, Idaho, Wyoming, Colorado, Minnesota, Wisconsin, Michigan, New York (reintroduced), Vermont, New Hampshire, and Maine, with the largest populations in the Rocky Mountains. Washington State recently listed the lynx as Threatened, and will take more active measures to aid population recovery (Anon. 1994b). Much of the lynx's American range consists of National Forest lands (Koehler 1990b). According to the US Fish & Wildlife Service, the threat to the lynx in the USA is due to the lack of guidance to conserve the species in current Federal land management plans.

In Canada, the species is considered endangered only in New Brunswick, and has been extirpated from Prince Edward Island and mainland Nova Scotia. The largest populations are found in southern Quebec, northern Alberta, northern British Columbia, Yukon, the Northwest Territories and Alaska (Government of Canada 1988; K. Poole, B. Slough *in litt.* 1993), although there is some concern that trapping pressure during the 1970s-1980s has reduced population levels. Breitenmoser *et al.* (1993b) suggest that the Canada lynx has specific behaviours allowing for an unusual adaptation to a predictably cyclic prey base, for instance same-sex overlap that reflects a high degree of tolerance to independent offspring by resident lynx (http://lynx.uio.no/catfolk/lynxca05.htm Cat Specialist Group).

Threats: habitat because of changing forests (habitat) http://www.r6.fws.gov/endspp/lynx/canada_lynx.pdf

*Lontra canadensis*, Threats to the North American otter are habitat destruction, including urban and agricultural development; pollution from a variety of causes including release of heavy metals, PCBs, and pesticides into watersheds, as well as acidification due to mining operations; harvesting that is not based on adequate population

data; incidental mortality during trapping for other species, especially beavers and coypu. (Otters, An Action Plan for their Conservation, IUCN/SSC Otter Specialist Group, 1990)

*Arctocephalus pusilus*, using aerial photography and tag recapture techniques the South African fur seal population size is estimated to be at most 2 million and is increasing at approximately 3% per annum (Butterworth and Wickens, 1990). The annual pup production is over 300,000.
The average annual harvest was about 75,000 pups (aged 6 ½-10 ½ months after the first molt) and 1400 bulls for the period 1973-1982. Maximal Sustainable Yield (MSY) policy was removing 35% of pups and a number of bulls. Since then an average of 25,000 pups and 9000 bulls have been killed but annual numbers killed have been highly variable (Wickens). Apart from the hunting, the fur seal population is exploited as a major tourist attraction at Cape Cross, False Bay, and Mossel Bay. In 1990, a moratorium was placed on sealing in South Africa until further research has been carried out. Seal harvesting continues in Namibia. (Seals, Fur Seals, Sea Lions, and Walrus, Status Survey and Conservation Action Plan, IUCN/SSC Seal Specialist Group, 1993)
Additionally, there is considerable interference with commercial fisheries, especially in the purse seine fisheries for pilchard (*Sardina pilchardus*) and anchovy (*Engraulis capensis*) and the trawler fisheries for hake. South African fur seals have been seen taking fish from the nets, or even from the ship, and chasing fish out of the net. Occasionally some seals become entangled in the nets and drown. Fur seals also get entangled in lost gear, such as nets and fishing lines. In a survey, 0.12% of the population was in some way entangled in lost gear (Shaughnessy, 1985).

*Equus zebra hartmannae*'s Hartmann's Mountain Zebra inhabits mainly Namibia, Angola and South Africa. On August 21, 1979, US Fish & Wildlife Service designated the species as Threatened in the entire range. Its population in the wild is estimated at 8000-13,000. International trade in Hartmann's zebras consists almost exclusively of hunting trophies and commercial exports of raw or processed skins.
Agriculture development is one of the main threats to the mountain zebra. Its habitat is destroyed to make room for new farmland, and it is hunted to prevent competition with domestic livestock by feeding on its grass and fodder. Another contributing factor, is paradoxically the increase in tourism, for example, in the Kaoko Veld - with the rapid increase in game farming with its subsequent game proof fencing for tourism and game hunting. On many of these farms the Hartmann's Mountain Zebra is often unwelcome due to the fact that the hunting thereof is restricted and often not attractive to hunters, who tend to prefer the more exotic antelopes. Endangered Species Act. CITES*. Mountain Zebra National Park was established in South Africa for the preservation of *Equus zebra.* (http://www.kidsplanet.org/factsheets/zebra.html)

Due to increased poverty, poaching became common over the last decades. Since the zebra offers a relatively large amount of meat, it has become a preferable target of the poachers and is often culled or caught in traps, pitfalls and most commonly in snares. In Angola this species was probably extirpated due to the war, i.e. hunted by soldiers and other people in need of meat (ETUSIS FOUNDATION for the protection of the Hartmann's Mountain Zebra, http://www.natron.net/etusis-foundation/main.html).

In Namibia (near-endemic to Namibia), more than 75% of the national population occurs on land outside national parks and game reserves, on privately owned and communal farmland, where the zebras are often perceived as problem animals. According to a 1998 survey, the national population of Hartmann's mountain zebra was estimated at 25 000 minimum (Survey of population status and trade in Hartmann's Mountain zebra, Ministry of Environment
www.bvet.admin.ch/forschung/d/berichte_publikationen/mehrjahresberichte/bericht96_99/artenschutz/132_d.html and Tourism Windhoek, Namibia).

The national and private game parks in Namibia and South Africa shelter part of the species, particularly the Namib Naukluft Park and parts of the Etosha Pan where it lives in competition with other zebras and where the danger of transmission of diseases is large. Namibian farms however, are an ideal habitat, due to their large size providing the possibility to migrate through large areas, the reason for Namibia becoming home of the largest population of the Hartmann's Mountain Zebra in the world.

*Wool*

| Scientific name | Common name | CITES Appendix | IUCN Red List | Prices (EUR, €) Minimum | Maximum | Captive Breed) or from the Wild (W) | Number of specimens imported in the EU (2000) |
|---|---|---|---|---|---|---|---|
| *Vicugna vicugna* | Vicuña | I | Lower Risk, Conservation Dependent | - | - | R | ? |
| *Lama guanicoe* | Guanaco | II | 3 subspecies in IUCN Red List (Vulnerable and endangered) | - | - | W | 148 kg |

## General Conclusion on Live Specimens and Leather and Fur

The analysis of EU 2000 imports suggests that for 10 species of each group (e.g. parrots, amphibians) live animals in trade are generally from specimens declared of captive bred sources while species traded for their skin, hide or used as ornaments are mostly from specimens reported to be caught in the wild. Globally, it means that 65.3 % of the specimens recorded in the tables above originate from wild sources, assuming that all wool comes from the wild.

Species most found in trade are all listed in CITES Appendix II except for Vicuña, listed in Appendix I.

With regard to trade in live animals, besides fashion trends, declining supplies also lead to rising prices and threatened species become more valuable, and thereby more sought for, as they approach extinction.

## FLORA: ECONOMICS AND CONSERVATION ISSUES

ANNEX IV

### Ornamental and medicinal & aromatic plants imported in the EU

### Ornamental Plants

Free imports of thousands of individuals of rare species were halted since CITES came into force on 1 July 1975, when all trade in orchids became either illegal, or legal with a permit system. The implementation of CITES and the respective EU Wildlife Trade Regulations are implemented differently in each member country. Illegal trade is still a matter of importance, as there is still a high demand for some taxa, e.g. especially for recently discovered species of East Asian lady slipper orchids *Paphiopedilum*. There seem to be singular cases of imports of endangered orchids in high numbers (F. Böhmer, German CITES Management Authority, pers. comm. to TRAFFIC Europe, July 2002).

As already mentioned, legal orchid trade in general seems to increase, because the demand for easily cultivated hybrids is growing. On the other hand demand for (and production of) certain rare taxa has decreased during the last years. Probably this trend will continue for human demographic reasons: most of the orchid hobbyists in Europe are quite old and recruitment seems to be sparse (various interviewed people, pers. comm. to TRAFFIC Europe – Germany, 2002). Thirty or twenty years ago, trade with rare and wild-harvested orchids was very lucrative. Nowadays, less money can be earned. This is another reason for the decrease of illegal trade activities during the last years. Price information is freely available on the many internet websites of most orchid companies as well as in fancier advertisements in certain websites and magazines. Prices for orchid specimens range widely among the 20,000 or more orchid species, from a few cents (in EUR) for a seed or seedling to several thousand EUR for a rare plant from the wild.

Habitat destruction in critical orchid habitats has been identified as the main target of orchid conservation, particularly in the tropics and on islands and island-like habitats, where most of the known threatened orchid species exist (Hágsater and Dumont, 1996). Trade regulations such as CITES can usually only play a complementary role, except for the case where threatened habitats are furthermore depleted by rigid collectors. Since CITES came into force in 1975, more than 20,000 orchid species were listed by the Convention, mostly on Appendix II. Since then, a lot of improvements and specifications in the regulation of orchid trade were realised. Nowadays, provisions on orchid trade are very effective and elaborate, although the have also led to some unintended results.

Commercial stakeholders and hobbyists are generally unsatisfied with the current situation. Some of the problems they have are understandable and justified, but singular hobbyists can also be simple-minded in their argumentation, just seeing their hobby and not any superior necessities. Publications in "Die Orchidee" (magazine of DOG) about recently discovered *Paphiopedilum vietnamense* and therefore obvious related prior imports of some individuals of the respective species to Germany (Schneckenburger, German Association of Botanical Gardens, pers. comm. to TRAFFIC Europe – Germany, March 2002) make it difficult to separate honesty from false pretences.

***Co-operation with CITES authorities***

In general, co-operation with responsible authorities, especially with the knowledgeable CITES authorities are rated positively by hobbyists. However, seldomly are fancier organisations involved in development of the respective implementation of the EU Wildlife Trade Regulations. Most of them are not invited to the preliminary NGO-meetings for CITES COPs (Röllke, DOG, pers. comm. to TRAFFIC Europe – Germany, March 2002).

At European level, lack of harmonisation seems to be a main concern of orchid traders. The way CITES is implemented in the different countries seems contradictory. There are many differences in the implementation of the regulations and the relevant procedures and paper work. Since two years, a new regulation in the Netherlands is annoying the Orchid hobbyists. It is only possible to take two plants on one CITES form. Costs per form amount to 50 Euro. If travelling to a foreign country, the forms need to be filled out before leaving the country, including the name of the species that are intended to be imported. According to hobbyists, this cannot be implemented. This regulation seems to lead either to illegal border crossings or to the import via Belgium or Germany.

Some UK orchid fair organisers complained that often plants for fairs get delayed. Some traders will not attend UK fairs anymore, because of high bureaucracy and costs. Switzerland is often mentioned as a positive example.

There, only one paper is needed, instead of three, like in other countries. Traders do not understand why it is possible to import plants to the Netherlands, while it is forbidden in Germany. Similar with flask orchids: there seems to be no overall implementation of the EU Wildlife Trade Regulations.

*Adequate care for orchids*

Adequate care for cultivated orchids is another topic often discussed by hobbyists. There seemed to be quite a lot of cases were seized or confiscated orchids died shortly after (e.g. Hansen, 2001). To gain a public understanding for the provision of CITES and the respective EU Wildlife Trade Regulations, such cases are clearly counter-productive. In this context it is also important to mention that most retailers selling orchids other than the insensitive *Phalaenopsis* hybrids do not have acquired knowledge on proper care. Despite this hotly debated issue, this seems to be of minor relevance for species conservation.

*Species and hybrids*

It is obvious that most of the traded orchids are artificially propagated hybrids (CITES Secretariat, 2002). These hybrids do not play any role in species conservation. Therefore facilitation in trade for hybrids is necessary. This is already in practice by acceptation of health certifications as CITES import or export permits. This facilitation is appreciated by all interviewed stakeholders.

In interviews with companies mostly dealing with hybrids the current situation and existing problems should be of special attention. Some stakeholders support the idea of exception of hybrids from CITES at all, a topic which will be partly discussed at the next COP of CITES. Others support a minimum of regulation for monitoring purposes. A bearable compromise combining a facilitation for commercial stakeholders and a minimum of monitoring is realised by the current acceptation of health certificates for hybrids. Differentiation between hybrids and species seems to be straight-forward for most flowering orchid individuals, but nearly impossible for vegetative plants. This is an important reason for leaving hybrids in CITES (with existing facilitations), as false declaration would become a well-known trick for avoiding any permits, if hybrids were generally excluded. The look-alike problem was probably the reason for including hybrids of *Paphiopedilum* in Annex A some years ago. This led to many problems in transactions with these hybrids, which are widely artificially propagated. *Paphiopedilum* hybrids are sold to a broad public and can even be obtained in supermarkets. Fortunately, according to all interviewed stakeholders, this obvious over-regulation was changed with a new CITES notification for orchids, exempting cut flowers of artificially propagated plants from the CITES permit system..

Trade with hybrids, covering a large amount of orchid trade, should not distract from the much more important trade with endangered species, which are often still wild-collected. Possible disproportion of administration efforts for hybrid regulation and benefit for species conservation has to be noticed. It needs to be stressed that focus of CITES has to be on wild species conservation and existing capacities should concentrate on the relevant part of species conservation. This would also help to improve communication and relationship with orchid growers.

*Collection from the wild, artificial propagation and conservation*

According to IUCN/SSC Orchid Conservation Action Plan (1996), 80% of orchid trade consists of artificially propagated individuals. Here a similar problem as for the hybrids can be encountered. Artificial propagation should not be complicated by CITES, as in some cases artificial propagation can support species conservation of rare orchid species. Nurseries and hobbyists propagating orchids often feel bothered by existing provisions for artificially propagated individuals, though existing provisions already facilitate trade with artificially propagated individuals by accepting health certifications (exception: export of Annex A species).

All interviewed experts claim that it is quite easy to differ wild collections from artificial propagations. Wild-collected orchids can be detected by their botanic morphological characteristics, by root shape or by settlement of parasites or mosses and lichens. But differentiation can be difficult in young and vegetative plants. Furthermore, some propagators and hobbyists define artificial propagation not very clearly and not in line with CITES. In their opinion wild-collected plants growing in pots for about one year can be referred to as cultivated, which involves the same exclusions for these orchids as for artificially propagated ones. In this case differentiation between these "pseudo-propagations" and artificial propagation (beginning with seeds, cuttings, divisions or other plant tissues) becomes tricky. Any facilitation in trade with artificially propagated individuals must take this problem into account and exact definitions, which can be controlled in practice, are necessary.

All propagators (commercials and hobbyists) claim that their work is a very important contribution to species conservation. This is true for species that are already extinct or nearly extinct in the wild. But it is important to point out that ex situ-conservation is an ultimo ratio and in-situ conservation steps should always be the first

choice. Some hobbyists are - despite their assurances - not able to propagate certain species adequately for reason of missing equipment (laboratory etc.). In these cases, propagators just conduct vegetative propagation. Resulting clones are not a helpful contribution for species conservation. Furthermore, origin of parental stock is not always clear, especially if plants were exchanged among hobbyists. Interpretation of such incidences are very difficult. However, lots of hobbyists propagate for idealistic reasons and have required capacities. The efforts of these people should be supported and it has to be clear that no one wants to complicate their idealistic efforts for orchid conservation.

Conservation by artificial propagation needs input from wild-collected orchids, either to start propagation or to refresh genetic diversity. Hobbyists support the idea of easier imports for these purposes. However, import for this reason needs thorough and exact regulations with the possibility of official registration of propagators. In addition to this, hobbyists usually point out that it must be easier to save orchids from destructed habitats. In their opinion salvage needs to be facilitated. In principle this is true and orchids from salvage are ideal as parental stock for artificial propagation. But facilitation is very difficult, as the origin of an orchid from destructed habitats is not obvious. Misuse would be easy and probable.

***Tillandsia* (Bromeliaceae)**

Most orchid companies also sell other tropical plants, especially bromeliads of the genus *Tillandsia* from the family of Bromeliaceae. Seven species of *Tillandsia* are listed on CITES Appendix II. According to Mr. Speckmaier (German expert, pers. comm. to TRAFFIC Europe – Germany, March 2002), *Tillandsia* are quite difficult to propagate in European climate. This is not in line with statements from the propagators of these plants. It is difficult to assess at the moment, if most plants are wild imports from South America or artificially propagated individuals from South America or Europe. Most imports from South America are claimed to derive from cultivation. But this seems to be uncertain in many cases.

***Trade and property rights***

Certificates for orchids propagated in the home laboratory are under discussion by hobbyists. According to the interviewed commercial stakeholders at the Dresden fair, all orchids of Annex A must be registered at the responsible local authorities in Germany. These provisions aim to specify the origin of cultivated orchids. Hobbyists and commercial entrepreneurs stress that, despite the fact that import of flasked individuals is allowed, they are not allowed to propagate these imported flasked orchids. There seems to be confusion on provisions of the regulation and legality of propagating Annex A species imported in flasks. This is a point to clarify, probably for both sides: orchid growers and conservationists. Further investigations on the legal provisions are necessary. It is important to point out that this issue has a likely link to the provisions of the "Convention on Biodiversity" (CBD).

Another type of registration is that for companies certificated as CITES-nursery. Very few companies have applied for this certificate in the EU. Import and export of orchids should be easier for these certificated companies. Some certified companies were a little unsatisfied with this facilitation and claim that efforts to become certified is not in balance with the benefits. The instrument of certifying companies looks promising for facilitation of orchid trade. The problems of this instrument should be studied in order to enable improvements for enlarging the importance of these registration provisions.

***Definition of trade***

Hobbyists emphasise the difference between exports in small numbers for individual (hobby) purposes and imports in big numbers for commercial purposes, just the latter one being actual trade in their opinion. (e.g, Hansen, 2001). From a species conservation point of view this difference is comprehensible, but debatable on a species level. Hobbyists foster to establish an exception for single individuals (ca. up to five), as it was common before EU Wildlife Trade Regulations (No. 338/97) came into force. This postulation has to be balanced with a loss of uniformity in the regulation. Any definition of single individuals is very difficult and has to set new limits that will be under discussion from both points of views. It is difficult to decide, if a cautious exception opens just a small door, but breaks walls in consequence.

***Implementation of CITES in range countries***

Worth to notice are complaints about CITES implementations in some range countries, particularly in Southeast Asia. In this region a lot of work has to be done to make things more transparent and to monitor and control the origins more effectively. According to hobbyists, in lots of cases it seems to be usual to export wild-collections labelled as artificially propagated. Problems in trade regulation of East Asian *Paphiopedilum* reflect inadequate controls in East Asian range countries. There seem to be possibilities to obtain wild-collected orchids as well as

falsified CITES permits (anonymous fancier, pers. comm. to TRAFFIC Europe – Germany, March 2002). Even at the airports indigeneous orchids are sold to the tourists (Mr. Speckmaier, pers. comm. to TRAFFIC Europe – Germany, March 2002). Orchid traders from Taiwan offer plenty of flasked Paphiopedilum species (including recently discovered *Paphiopedilum vietnamense* and *P. hangianum*) on their websites. This is legal, but for an importer the origin of parental stock of these flasks is not transparent. According to most hobbyists, better controls have been established in South America during the last years, resulting in diminishing demand for South American Lady Slipper Orchids *Phragmipedium*.

***Hobbyists and commercial propagators***

Caution must kept in mind should existing problems be solved to the advantage of the hobbyists. Changes fostered by the hobbyists will lead to an improvement for them, but not for the real commercial stakeholders. This inequality will result in new problems, especially when regarding the difficulties in separating hobby and commercial sector. Existing exceptions for flasked seedlings already give an opportunity to import every orchid species legally. Flasked seedlings have been available quite fast in the past, even for recently discovered species. Professional nurseries propagating the seedlings and producing lots of adult individuals can saturate the market without the need of importation of any wild-collected individuals. But not all commercial nurseries are acting this way. There are still some companies importing quite large numbers each year, including rare species as well. In most cases this seems to happen with CITES permits in a legal way. Hobbyists point out that these companies have no problems in getting the permits, even though their imports have a higher impact on endangered species than three or four individuals imported by a fancier.

***Interpretation of current situation***

The following common argumentation has repeatedly been found amongst hobbyists and should be treated with caution: Hobbyists often stress the fact that only artificially propagated individuals are able to win any awards on expositions and this being the incentive for most orchid hobbyists. Furthermore, artificially propagated individuals are already adapted to specific climate conditions in Europe and are therefore more vital than any wild-collections. Both aspects are true, but show just one side of the coin, as there are still many hobbyists more interested in species and wild-collections than in any "strange" hybrid. This is especially the case for genus *Paphiopedilum*.. Even though artificially propagated individuals are available for most species, lots of imports of wild-collected plants are still existing. Statements saying that some species can not be propagated artificially and have to be collected in the wild are not true. Thus, this can only be explained by a certain demand for wild-collections, preferring them to cultivated orchids. In this context one has to take into account that hobbyists are not really inhibited to import single individuals at the moment, as control at the borders can not detect every single plant in the luggage. Amount of wild-collected imports is higher than pretended.

Hundreds of thousands of rediscovered *Paphiopedilum delenatii* were collected during the 1990s, even though artificial propagation of the species was quite usual [Schneckenburger, referring to Cribb (Royal Botanic Garden, Kew), pers. comm. to TRAFFIC Europe – Germany, March 2002]. Interviewed hobbyists disclaim this. According to anonymous hobbyists, *Paphiopedilum vietnamense* and *P. hangianum*, both recently discovered species, are on high demand in fancier circles. Prices for these species are between 25 and 50 € per specimens, flasks are more expensive than adult plants. From this point of view, wild-collections of endangered species are still driven by hobbyists in Europe, Japan and USA.

In Europe, Germany seems to be one of the most important markets for endangered species imported illegally with still about 200 orchid "fundamentalists" (expression derived from personal estimations of three German stakeholders). In the UK, there seems to be a more restrictive controlling system as compared to the current one in Germany (Schneckenburger, pers. comm. to TRAFFIC Europe – Germany, March 2002). Authorities seem to be stricter in controls of orchids on expositions and fairs, leading to more seizures of whole batches of imports or whole batches of exposed material at a fair. Furthermore in Europe, judgement of illegal trade activities have been quite soft during the last years (Anton *et al.*., 2001). Authorities were afraid of initiating legal procedures, as recovery claims of importers have been quite impressive and legal procedures ended with settlements in most cases (Dr. Schneckenburger and Mr. Speckmaier, pers. comm. to TRAFFIC Europe – Germany, March 2002).

Another false pretence is the widely distributed statement saying that existing restrictions foster demand for rare species and demand would be reduced significantly by legalisation. This argument aims to facilitate trade with orchids in principal.

## Medicinal and Aromatic Plants (MAPs)

The global trade in raw MAPs is estimated at 800 million Euro per annum. Overall the EU encompasses 25% of the annual global MAP market, with 440,000 tonnes in 1996, of which 60% came from non-European source countries. (Lange, 1998). Within the EU, the main countries involved are Germany (1/3 of all EU imports), France and the UK. The internal EU market (40% of all imports, 80% of all exports) is of special importance as well, however, it does not (yet) concern the EU Wildlife Trade Regulations. This might change soon, since some countries considered under the EU enlargement process are amongst the main exporters of MAPs into the EU. Not only has the EU a main trade and processing role, but also acts as a main region of consumption of raw and finished MAPs. Trade in raw MAP material mostly consists in complete but dried plants and parts of plants (leaves, stems, roots, etc. or parts of the aforementioned). The Harmonised Custom's Code of the World Trade Organisation (WTO) does not allow for any price and trade evaluation of species of conservation concern, since most of the relevant species fall under a bulk code (Lange, 1998).

Conservation of medicinal plants is a rather new, but very important approach in species conservation. The global threats towards plants in general and medicinal plants in particular have been highlighted through the foundation of an IUCN Medicinal Plant Specialist Group under IUCN's Species Survival Commission and has been again underlined through the adoption by the parties of the "Global Plant Conservation Strategy" by the CBD (CBD Secretariat, 2002). Currently the World Health Organisation is concerned about better unwasteful use of medicinal plant resources and working on equivalent standards and criteria for the wild crafting and sustainable use of medicinal plants (WHO *in litt.* to TRAFFIC International, June 2002). Sustainable wild-collection of medicinal plants needs high attention due to different reasons: species conservation, conservation of existential medicinal resources for human beings and conservation of valuable resources for social communities in rural regions of the range countries (WHO, 2002).

About 2,000 MAP species are currently used for commercial purposes of which about two thirds are coming from Europe (Lange, 1998). The main regions of importation for the EU are Eastern Europe and the Balkan countries of Southeastern Europe (Kupke *et al.*, 2000; TRAFFIC Europe, 1999; Lange, 1998). Around 1,200 to 1,300 European plant species are involved in this trade, with about 90% of the species gathered from the wild (Lange, 1998; Lange and Schippmann, 1997). At volumina level, the amount of wild gathered MAPs is 50 to 70 % of the total trade. Around 20,000 to 30,000 tonnes MAPs are imported by Europe alone annually. The estimated area cultivated for MAPs encompasses about 70,000 ha and comprises (only) 130 to 140 species. The main countries of cultivation in Europe are France, Spain, Hungary and Poland (Kupke *et al.*, 2000; Lange, 1998).

In terms of CITES-listed species, the main regions of origin for the EU markets are the temperate zones of Asia and the Middle East, as well as Far Eastern countries including China (Traditional Chinese Medicine). Europe itself is another important source region, mostly for species covered under Annex D of the EU Wildlife Trade Regulations. According to Schippmann (2001), currently ten MAP species are listed under CITES Appendix I and the respective Annex A of the EU Wildlife Trade Regulations. CITES Appendix II and EU Annex B cover more than 210 species and two other species are listed in Appendix III and EU Annex C. Another six species are listed under the Annex D of the EU Wildlife Trade Regulations: *Arnica montana, Arctostaphyllos uva-ursi, Gentiana lutea, Lycopodium clavatum, Menyanthes trifoliata* and *Cetraria islandica.* The EU Annex D has been established to act as a tool of precaution. However, procedures are almost completely unknown to the stakeholders.

In Portugal, MAP specimens harvested for trade purposes are mostly from wild national collections. The unrestrained levels of collection can lead to the depletion of populations and decrease the genetic variability of the species. There is no record of trade of CITES species in this sector and the awareness among wholesalers is practically null. At least three CITES species are wild collected for trade purposes: one from Annex B and two from annex D. It is very difficult to quantify this trade and there is no monitoring. National trade is, in this sector, the main threat to conservation of the species.

Knowledge of trade with MAPs has grown in the last years, particularly due to intensive activities of TRAFFIC, WWF, ICMAP, FFI, the Rainforest Alliance, several Botanical Gardens and other NGOs in this field. However, deepened work is still needed for getting a more comprehensive knowledge of the basics. Probably not all endangered species in trade have been included in CITES yet.

## QUESTIONNAIRE TO ASSOCIATIONS / ORGANISATIONS

**ANNEX V**

### I. Basic information

1) What is the full name of your organisation?

2) Which type of organisation is it? a) NGO (Non-Governmental Organisation); b) IGO (Inter-Governmental Organisation); c) GO (Governmental Organisation); and d) Other (please specify)

3) What is the year of establishment?

4) Can you give some comments on the internal structure? E.g.: Is the organisation based on memberships? Do you have general member meetings? Which institution has the power to decide? What are your main sources for funding?

5) What are the objectives/ main aims of your organisation?

6) What are your main activities to fulfil those objectives?

7) What is the current number of members?

8) Which kind of members do you have (e.g. pet shops, pet food suppliers, equipment manufacturers, national umbrella organisations, governments, hobbyists etc.)? Can you please estimate the percentages per group? Can you please also estimate, per group, what percentage of all representatives of that group nationally or internationally (depending on your geographical scope) is a member of your organisation? E.g. if there are 100 pet shops, what percentage is a member of your organisation?

9) What is your geographical scope?
If the organisation is internationally active, can you please estimate the percentages of members per country?

10) Do you regularly organise and/or participate in trade fairs or other public events (which/where)?
If yes, what kind of fair regulations do you encounter? Are such regulations always the same or are there differences? Are they based on international or national legislation or are they dependent on the fair organisation staff? What are the main activities subject to such regulations (e.g. labelling of specimens with scientific name, restrictions with regard to displaying poisonous animals etc.)?

11) Do you spend any of your own budget on publicity (e.g. brochures, printmedia, TV, internet or broadcast)?

12) Do you publish and/or distribute any magazine(s), newsletter(s) or fact sheet(s)?
If yes, please give title(s), number(s) of issues per year as well as contact address.
Would it be possible for us to obtain a copy of one issue?

13) Are you member of any umbrella organisation?

### II. EU Regulations and CITES

1) Are you and your members aware of the EU Wildlife Trade Regulations (Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No. 1808/2001) and the CITES provisions?

2) What do you know about the EU Wildlife Trade Regulations (hereafter "the EU Regulations") and CITES and the requirements you have to comply with?
   - Give examples (optional):
   - Number of Annexes, Import, Export:
   - Which institution is responsible for issuing the permits and certificates?

- For which species (roughly) do people working in your sector have to apply for a trade permit or certificate?

3) Do you understand all parts of the EU Regulations and CITES?

4) Would you like to have better information about the EU Regulations and CITES?
If yes, which aspects?

5) Through which channels do you obtain information on the EU Regulations and CITES?

6) Are there any people in your organisation working specifically on EU Regulations and CITES related issues? If yes, please give name and contact address.

7) Do you distribute information on the EU Regulations and CITES amongst your members?
If yes, by which means and how often?
If yes, what kind of information is included? Has there ever been any mentioning of article 9(4) of Council Regulation (EC) 338/97 that mentions that the holder of a live specimen of an Annex B species has to ensure that the recipient of the specimen is adequately informed of the accomodation, equipment and practices required to ensure the specimen will be properly cared for?
If no, would you think this is useful? And which means would you suggest/prefer?

8) Do you think that the overall knowledge on the EU Regulations and CITES in your sector is high?

9) What are the main impacts of the EU Regulations and CITES on your sector (e.g. important financial impact caused by restriction of trade in species that are popular on the market or administrative burden caused by the large number of rules and documents involved etc.)?

10) Do you think the EU Regulations and CITES are important tools for the conservation of species and the effective support of sustainable use of wildlife?

11) Do you have any suggestions to improve the relationship between the authorities and the traders for the purpose of better awareness and more efficient decision-making that has beneficial results for all parties?

12) Does your organisation have a policy on how to deal with detected illegal activities by members?
If yes, what are the consequences for such members?
If yes, has it ever been necessary to apply this policy?

13) What do you know about the legal consequences for not complying with the provisions of the EU Regulations?

### III. Specimens in trade

1) Which species (roughly) listed in EU Regulations are found in trade in the market sector you are involved in?

2) How many specimens (roughly) of species listed in the EU Regulations are annually used in the commercial sector you are working in?

3) Estimation only: How many of your associated companies (percent) do regularly apply for CITES permits?

## QUESTIONNAIRE TO BUSINESSES

**ANNEX VI**

### I. Basic information

1) What is the full name of your business?

2) What is your role in the market? (Possibly more than one)
   a) Importer
   b) Exporter
   c) Wholesaler
   d) Retailer
   e) Breeder, artificial propagation, nursery etc.
   f) Manufacturer
   g) Other (please specify)

3) What is the year of establishment of your business?

4) What is the geographical scope of your business?
   If you are internationally active, can you please estimate the numbers of customers per country?

5) Are you member of any organisation, association or club? (If yes, which?)

6) Do you regularly organise and/or participate in trade fairs or other public events (which/where)?
   If yes, what kind of fair regulations do you encounter? Are such regulations always the same or are there differences? Are they based on international or national legislation or are they dependent on the fair organisation staff? What are the main activities subject to such regulations (e.g. labelling of specimens with scientific name, restrictions with regard to displaying poisonous animals etc.)?

7) Do you spend any of your own budget on publicity (e.g. brochures, printmedia, TV, internet or broadcast)?

8) Do you publish and/or distribute any magazine(s), newsletter(s) or fact sheet(s)?
   If yes, please give title(s), number(s) of issues per year as well as contact address.
   Would it be possible for us to obtain a copy of one issue?

### II. EU Regulations and CITES

1) Are you aware of the EU Wildlife Trade Regulations (Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No. 1808/2001) and the CITES provisions?

2) What do you know about the EU Wildlife Trade Regulations (hereafter "the EU Regulations") and CITES and the requirements you have to comply with?
   - Give examples (optional):
   - Number of Annexes, Import, Export:
   - Which institution is responsible for issuing the permits and certificates?
   - For which species (roughly) do you have to apply for a trade permit or certificate?

3) Do you understand all parts of the EU Regulations and CITES?

4) Would you like to have better information about the EU Regulations and CITES?
   If yes, which aspects?

5) Through which channels do you obtain information on the EU Regulations and CITES?

6) Do you think that the overall knowledge on CITES and the EU Regulations in your sector is high?

7) What is the source of your specimens (LISTED AND NON-LISTED in the EU Wildlife Trade Regulations)? Please estimate the percentages for each of the following categories and give the main exporting countries for the imported specimens (category a to c).
   a) Import of wild specimens from country of origin
   b) Import of wild specimens from re-exporting country
   c) Import of captive bred or artificially propagated specimens
   d) Import of manufactured specimens
   e) Breeding, artificial propagation, nursery etc.
   f) Purchase from importer in country
   g) Purchase from wholesaler in country
   h) Purchase from retailer in country
   i) Purchase from breeder in country
   j) Purchase from manufacturer in country
   k) Other (please specify)

8) Are you always ensured that the specimens were legally obtained by your provider?
   If yes, how?

9) Do you know something about the legal consequences for people not complying with the provisions of the Regulation?

10) Who are the customers of your specimens? Please estimate the percentages for each of the following categories:
   a) Private owners
   b) Wholesalers
   c) Retailers
   d) Breeders or nurseries
   e) Manufacturers
   f) Other (please specify)

11) Are you always ensured that the customer of specimens from Annex B species is adequately informed of the accommodation, equipment and practices required to ensure the specimen will be properly cared for?
   If yes, how?

12) What are the main impacts of the EU Regulations and CITES on your sector (e.g. important financial impact caused by restriction of trade in species that are popular on the market or administrative burden caused by the large number of rules and documents involved etc.)?

13) Do you think the EU Regulations and CITES are important tools for the conservation of species and the effective support of sustainable use of wildlife?

14) Do you have any suggestions to improve the relationship between the authorities and the traders for the purpose of better awareness and more efficient decision-making that has beneficial results for all parties?

**III. Specimens in trade**

1) Which species listed in the EU Regulations are most often involved in your trade activities?

2) How many specimens of species listed in the EU Regulations are annually sold by you?
   What is the level of value of this sale as compared to other specimens or products?

3) How many CITES permits and/or certificates do you annually apply for?

4) Can you give a rough estimate for each group of specimens (LISTED AND NON-LISTED in the EU Wildlife Trade Regulations) on the average annual quantities imported, bred and/or sold by your business?

| Group | Term | Quantity imported | Quantity bred | Quantity sold |
|---|---|---|---|---|
| Mammals | Live | | | |
| | Wool | | | |
| Birds | Live | | | |
| | Dead/stuffed | | | |
| Reptiles | Live | | | |
| | Skins and leather | | | |
| Ornamental plants | Live | | | |
| | Other | | | |
| Medicinal plants | Dried plants | | | |
| | Other | | | |
| Ornamental fish* | Live | | | |
| | Dead | | | |
| Other: Please specify | | | | |

* Including corals and seahorses.

5) Can you list the top five of species (LISTED in the Annexes to the EU Wildlife Trade Regulations) involved in your business, the main countries of origin, the average annual quantity imported, bred and/or sold by your business, the average buying price per specimen and the average selling price per specimen.

| Nr. | Species | Term* | Countries of origin | Quantity imported | Quantity bred | Quantity sold | Average buying price | Average selling price |
|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |

* Please specify the term (e.g. live, dead etc.) – if several terms are imported for one species, use separate rows.

## ACTIVITY SCHEDULE FOR VISITING FAIRS

**ANNEX VII**

Visiting fairs for the purpose of the publicity initiative project should include the following activities.

### *General profile of fair and quality of organisation*

- What kind of fair is it? Targeting the broad public or specialist collectors?
- If possible, contact the organiser and try to obtain information on numbers of exhibitors and visitors, as well as on their profiles (e.g. # of hobbyists, # of commercial businesses, # of conservation organisations).
- Any other information from the organiser on history, developments, importance and whatever you can think of can also be interesting.
- Obtain a copy of the fair rules. Are these fair rules exclusively designed by the organisation or based on national or international regulations?
- Check in which way these rules are enforced, e.g. are any controls by experts, such as vets - are there any safety security measures, such as a fire prevention team?
- Do you see any incidences in which the fair rules are broken? In which way? How often?
- Is this also detected by the organisation? If yes, what are the actions taken (e.g. warning, exclusion of the fair)?
- If the fair includes exhibitors that sell poisonous animals (reptiles/amphibians), then how is that being dealt with? Are they put in a different room? How is the security of such a room?

### *Assessment of EU and CITES listed species present*

- Get an impression of the presence at the fair of CITES (EU reg.) listed species compared to other species.
- Looking specifically at the listed species, overall estimates as well as more detailed anecdotal information on numbers, sources (wild or captive) and prices are very useful. It is possible to make a list of certain target species for which this kind of information should be gathered. For reptiles, such species would include turtles and tortoises, gecko's, chameleons, iguanas, monitor lizards and snakes.

### *Exhibition of EU and CITES listed animals and plants and expertise of dealers*

- How are live plant and animal specimens exhibited?
- Do you encounter situations in which the conditions of the specimens are not acceptable? E.g., in the case of live animals, small cages, no water, intensive handling or, in the case of live plants, weak specimens that have not received enough (or too much) water and that are likely to die within a short period of time?
- Are the specimens labelled with (correct) scientific names, protection status and source (wild or captive)?
- If you show interest in a specimen, then what can the dealer tell you about it?
- Does he or she give detailed and correct information on how to take care of a live specimen?
- Does he or she seem to be well informed of the EU regulations and CITES?
- Is the retailer in possession of relevant documents and prepared to hand them to you if you buy the specimen?

It is not necessary to spend the largest part of your time on interviewing dealers. Just two to five may be enough, more is of course OK. You can pretend being a consumer, which probably will give you the most useful information.

In addition to above points, establishing contacts with organisations and businesses as well as getting business cards, flyers and price lists will be useful for other activities of the project (and also have a general value). It also will be nice if everyone can take a camera and make pictures. Useful for the report and for other purposes in the future.

Of course, there is a possibility to report other information, such as personal impressions, experiences and anecdotes that don't fit under any of the above bullet points.

**DEFINITIONS FOR FILLING IN THE DIRECTORY** **ANNEX VIII**

## Associations/Organisations (Directory –1st Table)

- Sector – fill in one of the following categories:
  - live pets general
  - reptiles
  - amphibians
  - ornamental fish
  - birds
  - birds of prey
  - wool
  - leather
  - ornamental plants – general
  - ornamental plants – orchids
  - medicinal plants – pharmacy
  - medicinal plants – food and drink
  - medicinal plants – cosmetics

If you wish to combine categories, please use the alphabetical order and "&" as symbol, e.g. birds & reptiles & wool.

- Specification
  - Hobbyist umbrella association
  - Commercial umbrella association
  - Hobbyist association
  - Commercial association

Solely scientific or conservation organisations are not interesting for this project and shouldn't be included.

- Association Name 1 (Question I-1)
- Association Name 2 (Question I-1)
- Association Name 3 (Question I-1)

Please include the full name. Don't put "the" before a name. You can use the three columns for including subtitles (e.g. Herpetologische Terraristische Vereinigung Österreich - Verein für Terraristik) and the English name (Austrian Herpetological Terraristic Association).

- Contact name general
- Contact name CITES (Question II-6)

More than one name for each cell is possible, divided by ";". Also the position of the person can be added as follows: J. Willekens (Director); B. Lafaye (Secretariat).

- Address 1
- Address 2
- Address 3

The three address columns can be used freely to store long addresses. It would be nice to allow the possibility to make address labels based on these columns, so include only one address, If there is a postal and visiting address, then include the visiting address and leave out the postal one. The visiting address is most interesting and mail will arrive to the proper organisation anyway. There is no need in including country codes to the postal codes.

- Country
- Telephone
- GSM
- Fax

Please add the international code to phone and fax numbers as follows: (44) 1234 456 789

- E-mail
- Homepage
- Other website as source
- Date of excerpt

Date of excerpt is the date you visited the homepage or another website as source and extracted information. Keeping in mind the autofunction for dates in excel and the backwards numbering that is sometimes used, it is best to stick to one format (day/month/year) as follows: 25 October 2002 is 25/10/2002. Please put a point after all dates to prevent the autofunction from changing it again.

- Type of organisation (Question I-2)

Type of organisation. Here it is also fine to include additional information (besides NGO, IGO, GO) that characterises the association, such as e.g. "representative of wholesalers and retailers".

- Year of establishment (Question I-3)
- Internal structure (Question I-4)
- Sources of funding (Question I-4)
- Objectives (Question I-5)
- Activities (Question I-6)
- Number of members (Question I-7)

Number of members. Include only a number e.g. "5506" and don't add words like "around" or "member clubs".

- Characteristics of members (Question I-8)
- Geographical scope (Question I-9)

Geographical scope. Only chose between the following categories: "International", "European", "EU", "National" or "Local". If an organisation is called "Dutch Tortoise Group" and they have quite large numbers of members in other countries, then it is still a national organisation. It will show from the numbers of members per country that such an organisation has an international scope as well. Further, it happens often that American organisations call themselves international, while they don't have any members or activities abroad. Such organisations should not be included.

- Members per country (Question I-9)
- Organisation of fairs and events (Question I-10)
- Participation in fairs and events (Question I-10)
- Comments on fair regulations (Question I-10)
- Budget on publicity (Question I-11)
- Publication 1 (Question I-12)
- Publication 2 (Question I-12)

For publications, only mention the name and the repetition, e.g. Dendobatidae Magazine (bi-monthly). For repetition, you can chose between "annually", "biannually" (twice a year), "bi-monthly" (once every two months), "monthly" and "weekly". All magazines (not newsletters) published by associations listed in this sheet also have to be included in the sheet for magazines, where more detailed information can be added.

- Memberships (Question I-13)
- Comments on profile

Comments on profile. Here you can add any additional information on the profile if it didn't fit under any of the columns and is still interesting.

- Assessment of awareness (Question II-1, 2, 3, 4)

Assessment of awareness. Make a short summary of the answers to these four questions.

- Channels for obtaining info on CITES (Question II-5)
- Channels for distribution info on CITES (Question II-7)
- Overall knowledge of CITES in sector (Question II-8)
- Impacts CITES on sector (Question II-9)
- Importance of CITES as tool (Question II-10)
- Suggestions for improvement (Question II-11)
- Policy on illegal activity by members (Question II-12)
- Legal consequences for illegal trade (Question II-13)
- Listed species generally used (Question III-1)
- Number of listed specimens annually used (Question III-2)
- Number of members applying for permits (Question III-3)
- Name of interviewer, interviewed person and date of interview
- Additional comments or personal impressions

Additional comments or personal impressions. Here you can add other information on the EU Regulations and CITES in relation to the organisation. You can also add a personal impression on the entire interview and make cautious conclusions. If there are any related documents in your possession, please mention this here and refer to the place where it is stored.

## Businesses

(Directory – 2nd Table)

- Sector – fill in one of the following categories:
  - live pets general
  - reptiles
  - amphibians
  - ornamental fish
  - birds
  - birds of prey
  - wool
  - leather
  - ornamental plants – general
  - ornamental plants – orchids
  - medicinal plants – pharmacy
  - medicinal plants – food and drink
  - medicinal plants – cosmetics

If you have to combine any of these categories, then do this in alphabetical order and with an &-sign as follows: amphibians & ornamental fish & reptiles.

- Specification (Question I-2)
  - Importer
  - Exporter
  - Wholesaler
  - Retailer
  - Breeder
  - Propagator
  - Manufacturer

Again, if you have to combine any of these categories, then do this in alphabetical order and with an &-sign as follows: importer & retailer.

- Business Name 1 (Question I-1)
- Business Name 2 (Question I-1)
- Business Name 3 (Question I-1)

Please include the full name. Don't put "the" before a name. You can use the three columns for including subtitles etc. (e.g. Merlyn – Breeder of reptiles and amphibians).

- Contact name

More than one name for each cell is possible, divided by ";". Also the position of the person can be added as follows: J. Willekens (Onwer); B. Lafaye (Employee).

- Address 1
- Address 2
- Address 3

The three address columns can be used freely to store long addresses. It would be nice to allow the possibility to make address labels based on these columns, so include only one address, If there is a postal and visiting address, then include the visiting address and leave out the postal one. The visiting address is most interesting and mail will arrive to the proper business anyway. There is no need in including country codes to the postal codes.

- Country
- Telephone
- GSM
- Fax

Please add the international code to phone and fax numbers as follows: (44) 1234 456 789

- E-mail
- Homepage
- Other website as source
- Date of excerpt

Date of excerpt is the date you visited the homepage or another website as source and extracted information. Keeping in mind the autofunction for dates in excel and the backwards numbering that is sometimes used, it is best to stick to one format (day/month/year) as follows: 25 October 2002 is 25/10/2002. Please put a point after all dates to prevent the autofunction from changing it again.

- Role in the market

Here you can include additional information to the answer to question I-2 (which is put in the column "Specification"). Thus, you can mention that it concerns a small specialistic shop or a large shop for the general public etc.

- Year of establishment (Question I-3)
- Geographical scope (Question I-4)

Geographical scope. Only chose between the following categories: "International", "European", "EU", "National" or "Local".

- Customers per country (Question I-4)
- Member of organisation (Question I-5)
- Organisation of fairs and events (Question I-6)
- Participation in fairs and events (Question I-6)
- Comments on fair regulations (Question I-6)
- Budget on publicity (Question I-7)
- Publication 1 (Question I-8)
- Publication 2 (Question I-8)

For the publications, only mention the name and the repetition, e.g. Dendobatidae Magazine (bi-monthly). For repetition, you can chose between "annually", "biannually" (twice a year), "bi-monthly" (once every two months), "monthly" and "weekly". All magazines (not newsletters) published by businesses listed in this sheet also have to be included in the sheet for magazines, where more detailed information can be added.

- Comments on profile

Comments on profile. Here you can add any additional information on the profile if it didn't fit under any of the columns and is still interesting.

- Assessment of awareness (Question II-1, 2, 3, 4)

Assessment of awareness. Make a short summary of the answers to these four questions.

- Channels for obtaining info on CITES (Question II-5)
- Overall knowledge of CITES in sector (Question II-6)
- Source of specimens (Question II-7)
- Source legality (Question II-8)
- Legal consequences for illegal trade (Question II-9)
- Customers of specimens (Question II-10)
- Customers suitability (9(4)) (Question II-11)
- Impacts CITES on sector (Question II-12)
- Importance of CITES as tool (Question II-13)
- Suggestions for improvement (Question II-14)
- Listed species generally sold (Question III-1)
- Number of listed specimens annually sold (Question III-2)
- Value of annual sale listed specimens (Question III-2)
- Number of permits per year (Question III-3)
- Other trade information
- Name of interviewer, interviewed person and date of interview
- Additional comments or personal impressions

Additional comments or personal impressions. Here you can add other information on the EU Regulations and CITES in relation to the business. You can also add a personal impression on the entire interview and make cautious conclusions. If there are any related documents (including the filled in tables belonging to questions III-4, 5) in your possession, please mention this here and refer to the place where it is stored.

## Fairs (Directory – 3rd Table)

- Sector – fill in one of the following categories:
  - live pets general
  - reptiles
  - amphibians
  - ornamental fish
  - birds
  - birds of prey
  - wool
  - leather
  - ornamental plants – general
  - ornamental plants – orchids
  - medicinal plants – pharmacy
  - medicinal plants – food and drink
  - medicinal plants – cosmetics

If you have to combine any of these categories, then do this in alphabetical order and with an &-sign as follows: amphibians & ornamental fish & reptiles.

- Name of event
- Site

Site. It is not necessary to include the entire address. Just the facilitation is fine, e.g. Brabanthallen.

- City
- Country
- Date

Keeping in mind the autofunction for dates in excel and the backwards numbering that is sometimes used, it is best to stick to one format (day/month/year) as follows: 25 October 2002 is 25/10/2002 – from 23 to 25 October 2002 becomes 23-25/10/2002. Please put a point after all dates to prevent the autofunction from changing it again.

- Organised by
- Contact name

More than one name for each cell is possible, divided by ";". Also the position of the person can be added as follows: J. Willekens (Organiser); B. Lafaye (Employee).

- Contact address 1
- Contact address 2
- Contact address 3

The three address columns can be used freely to store long addresses. It would be nice to allow the possibility to make address labels based on these columns, so include only one address, If there is a postal and visiting address, then include the visiting address and leave out the postal one. The visiting address is most interesting and mail will arrive to the proper organisation anyway. There is no need in including country codes to the postal codes.

- Telephone
- Fax

Please add the international code to phone and fax numbers as follows: (44) 1234 456 789

- E-mail
- Homepage
- Other website as source
- Date of excerpt

Date of excerpt is the date you visited the homepage or another website as source and extracted information. Keeping in mind the autofunction for dates in excel and the backwards numbering that is sometimes used, it is best to stick to one format (day/month/year) as follows: 25 October 2002 is 25/10/2002. Please put a point after all dates to prevent the autofunction from changing it again.

- Repetition – fill in one of the following categories:
  - Biennially (once every two years)
  - Annually
  - Biannually (twice a year)
  - Several times a year (more than twice a year, less than every two months)
  - Bi-monthly (once every two months)
  - Monthly
  - Weekly

- Coming dates

Several dates should be separated by a point-comma: 25/10/2002; 12-13/12/2002.

- Number of exhibitors (year)
- Number of visitors (year)

For the latest exhibition, if possible: e.g. 2203 (2001).

- Visited and report written?

If the fair has been visited, give name of person who has made this visit, the date and info on where the report is stored.

## Magazines (Directory – 4th Table)

- Sector – fill in one of the following categories:
  - live pets general
  - reptiles
  - amphibians
  - ornamental fish
  - birds
  - birds of prey
  - wool
  - leather
  - ornamental plants – general
  - ornamental plants – orchids
  - medicinal plants – pharmacy
  - medicinal plants – food and drink
  - medicinal plants – cosmetics

- Name of magazine
- Language
- Published by association or business

Published by association or business. All magazines (not newsletters) published by associations or businesses listed in the other sheets have to be included here too. Mention the name of the related association or business in this column.

- Repetition – fill in one of the following categories:
  - Annually
  - Biannually (twice a year)
  - Bi-monthly (once every two months)
  - Monthly
  - Weekly

- Contact name or independent publisher

Contact name or independent publisher. Fill in the name of the person at the organisation or business responsible for the publication or, if the magazine is not published by an organisation or business, the name of the independent publisher.

- Contact address 1
- Contact address 2
- Contact address 3

The three address columns can be used freely to store long addresses. It would be nice to allow the possibility to make address labels based on these columns, so include only one address, If there is a postal and visiting address, then include the visiting address and leave out the postal one. The visiting address is most interesting and mail will arrive to the proper organisation anyway. There is no need in including country codes to the postal codes.

- Country
- Telephone
- Fax

Please add the international code to phone and fax numbers as follows: (44) 1234 456 789

- E-mail
- Homepage
- Other website as source
- Date of excerpt

Date of excerpt is the date you visited the homepage or another website as source and extracted information. Keeping in mind the autofunction for dates in excel and the backwards numbering that is sometimes used, it is best to stick to one format (day/month/year) as follows: 25 October 2002 is 25/10/2002. Please put a point after all dates to prevent the autofunction from changing it again.

- Other comments

Any additional information, e.g. on the contents of the magazine. If you are in possession of copies, then mention where these are stored.

Report to the European Commission Contract
B4-3040/2001/325509/MAR/E1
September 2002



**Front photographs:**
Captive bred parrots (*Amazona a.autumnalis*) – K. Berkhoudt TRAFFIC Europe
Reptile (*Basiliscus plumifrons*) by – K. Berkhoudt TRAFFIC Europe
Corals (*Acropora* spp.) – http://www.saltreef.com
Hybrids of *Cattleya* spp. orchids – M. Schleuning TRAFFIC Europe – Germany
Herbal OTC Products – W. Kathe WWF Germany
Leather shoes – TRAFFIC Europe