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AN ASSESSMENT OF THE INTERNATIONAL TRADE IN SPINY-TAILED LIZARDS *UROMASTYX* WITH A FOCUS ON THE ROLE OF THE EUROPEAN UNION

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Contents

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EXECUTIVE SUMMARY

This study comprises an analysis of the global trade in spiny-tailed or Dabb lizards *Uromastyx* spp. between 1977 and 2001. The study focuses on the main species and countries involved in the trade, and assesses the effectiveness of different trade control measures in place. It is hoped that such information will be used as basis for future decision-making and to direct research at species and countries that need special attention.

Spiny-tailed lizards are relatively large and colourful animals. They have become increasingly popular in the pet trade, particularly in the USA, and are used in a lesser extend by some Muslim communities, for instance in Malaysia, to prepare a fortification oil as part of the traditional medicine. They are adapted to arid regions and range from northwest India throughout southwest Asia and the Arabian Peninsula to the Sahara of Africa. There are currently 16 species or so but the taxonomy of the genus is still subject to debate and there is no CITES standard reference adopted yet. Currently, little is known about the ecology, population status and trade trends in these species. Rising concern about the sustainability of the trade in *Uromastyx* has led to the inclusion of *Uromastyx* species in Appendix II of CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) in 1977. In addition, the European Union's Member States have established under the EU Wildlife Trade Regulation a number of restrictions on the import of certain species or from certain countries.

Based on CITES trade data a total of 215,838 specimens of *Uromastyx* have been traded internationally between 1977 and 2001. Although *Uromastyx* have been in international trade since the 1970s, trade levels have only started to increase substantially in the past decade. In addition, both the number of countries and species involved in international trade has increased over time. The trade in *Uromastyx* is dominated both by a few countries and a few species. Until the mid-1990s Egypt was the largest exporting country of *Uromastyx* species but since 1996 exports from Mali increased and have overtaken Egypt. Levels of export from Mali have increased very rapidly and are now close to 30,000 specimens a year. After Mali and Egypt, the most important exporters of specimens of *Uromastyx* are Yemen, Sudan and the United Arab Emirates.

With almost 70% of total imports in *Uromastyx*, the United States (USA) is by far the largest importer, showing both the highest average annual imports and sharpest recent increase in imports. The main species imported by the USA are, in order of importance *U. dispar, U. aegyptia, U. acanthinura* and *U. ocellata.*

The European Union (EU) is the second largest importer, with 20% of the total imports in *Uromastyx* between 1977 and 2001. The EU Member States also export and re-export specimens of *Uromastyx*, but 94% of the EU trade in *Uromastyx* is importation. The main importers within the EU are Belgium, France, Germany, Spain and the Netherlands. The most important exporters to the EU are Mali, Sudan, Egypt, the United Arab Emirates and Benin, respectively. The EU's favorite species, in terms of total imports over the study period, are *U. dispar, U. acanthinura, U. ocellata* and *U. aegyptia*, respectively.

At global level, the species most trade are *U. dispar* (38% of total trade from 1977 to 2001), *U. acanthinura* (14%), *U. aegyptia* (12%) and *U. ocellata* (11%). Over time trade has shifted from one species to another, as trade levels for each species increased then decreased in turn. Trade shifted from *U. aegyptia* and *U. ocellata* to *U. acanthinura* and finally *U. dispar*. These shifts could be caused by changes in consumer preferences, but it more likely that they are due to the availability of species as well as a response to trade restrictions imposed for example by the European Union for imports to its Member States. Currently, *U. dispar* and *U. geyri* show the greatest recent increase in trade, both exported almost exclusively from Mali. For all the species of *Uromastyx* except *U. hardwickii*, over 80% of traded specimens were taken from the wild.

Uromastyx species have been subjected to various trade restrictions at international (CITES), regional (EU import suspensions) or national level (export bans). This report shows that these restrictions have not always been as effective as anticipated in ensuring the sustainability of or regulating the trade. This is mostly due to a lack of enforcement (e.g. the Egyptian export ban in effect since October 1991), and in some cases, trade restrictions do not seem to be based on biological justifications (e.g. export quotas set by Mali and Ethiopia).

Reported levels of illegal trade in *Uromastyx* appear low compared to the legal trade and fluctuate over time. However, such changes in apparent levels of illegal trade may simply reflect the lack of accurate and complete data, rather than any actual change in illegal trade. Data on illegal trade recorded in the CITES database only cover a fraction of the smuggling, because a limited part is detected and because most CITES Parties do not include data on seizures or confiscation in their annual report. Total estimated levels of illegal trade are therefore very inaccurate. According to the limited information available, specimens originating from Egypt and specimens of the species *U. aegyptia*, appear in greatest number in reported seizures.

INTRODUCTION

Over the past ten years, the European Union (EU) has become one of the largest and most diverse markets for wildlife and wildlife products in the world. All EU Member States are Parties to CITES and have implemented its provisions through Council Regulation (EC) No. 338/97 and Commission Regulation (EC) No. 1808/2001. Independently of CITES, the EU can impose trade measures that are stricter than CITES if there are concerns that imports into the EU could have a harmful effect on the conservation status of the species [Article 4.2 (a) of Council Regulation (EC) No. 338/97].

In the EU, the Scientific Review Group (SRG), consisting of the representatives of the CITES Scientific Authority of each EU Member State, examines whether or not imports for particular species-country combinations comply with the conservation requirements of EU Wildlife Trade Regulations. If the SRG establishes a negative opinion regarding the import of a certain species from a certain country of origin, the European Commission consults with the country of origin concerned and may subsequently establish a binding import restriction, which applies to all EU Member States.

In the 1990s, the international trade in live reptiles increased dramatically with over six million live specimens of CITES-listed reptile species being reported in international trade annually according to CITES trade data. The majority of these (70%) were destined for the United States, while another significant part (17%) was destined for the EU (Auliya and Berkhoudt, in prep.). Trade in live reptiles predominantly supplies the pet market (Hoover, 1998) and herpeto-culture, the hobby of keeping and breeding reptiles, and is an economic niche that is estimated to generate more than one billion Euro a year (de Vosjoli, 1998). The EU market is ever expanding and the import of live CITES-listed reptiles increased from under 60,000 in 1990 to over 245,000 in 1998 (Auliya and Berkhoudt, in prep.). The reptile order imported in the highest volumes into the EU is *Squamata*, which includes lizards and snakes, and this trade has grown significantly since the early 90s, with imports increasing consistently from 1990 to 1998 (Auliya & Berkhoudt, in prep.).

A very popular genus of lizards in the pet trade is the spiny-tailed or Dabb lizard *Uromastyx* spp. It also enters in the preparation of traditional medicinal oil in Malaysia. Spiny-tailed lizards are adapted to arid regions and range from northwest India throughout southwest Asia and the Arabian Peninsula to the Sahara of Africa (Moody, 1987). Currently, 16 species of *Uromastyx* are recognized, but the taxonomy is still unclear and subject to debate (Wilms, 2001). In addition, several new species have recently been described.

There is currently no clear global picture of the conservation and trade status of the different species of *Uromastyx* in trade. Using CITES trade data as well as data on price and availability of *Uromastyx* in trade, this study aims to provide an overview of both the legal and illegal trade in *Uromastyx*, with a particular focus on the role of the EU. It also attempts to examine the impacts of the different trade control measures in place at national and international level to determine which of these measures are most effective. It is hoped that this information will assist relevant authorities in the exporting and importing countries of *Uromastyx* in taking measures to ensure the use and trade in these lizards will be ecologically sustainable and will not harm the conservation status of these species in the wild. It is also hoped that the findings of this report will be used as a basis to direct research effort to the species and countries that most need it.

The specific objectives of this project include the following:

- To describe global trends in *Uromastyx* trade for the period 1977 to 2001, focusing on the main importers and exporters and the main species in trade.
- To assess the role of the European Union (EU) as an importer, exporter and re-exporter of *Uromastyx*, including an analysis of which EU countries are the most important *Uromastyx* importers and which non -EU countries are the main exporters to the EU.
- To outline the characteristics of global trade, including the main purposes of trade, the forms in which specimens are traded and the sources of specimens.
- To provide an overview of illegal trade, including trends over time, and countries and species involved
- To assess the effectiveness of the different trade control measures that have been applied to *Uromastyx*
- To provide recommendations for ensuring sustainable harvest of, and trade in *Uromastyx.*

Biology, distribution and conservation of the genus

Little is known about this genus and there are far more publications concerning husbandry and captive breeding of *Uromastyx* than concerning their ecology and behaviour in the wild (Highfield and Slimani, 1998). *Uromastyx* are generalist herbivores, they are diurnal and usually live in groups of several individuals occupying very extensive territories (Zug, 1993). Typical populations range from 10 to as many as 100 animals per km^2, each with a home range of one to five hectares (Highfield and Slimani, 1998). *Uromastyx* are very colourful lizards whose size varies with species and can reach up to 75cm in the largest individuals. They live between 15 and 20 years, reach sexual maturity around four years and lay between 10 and 40 eggs per year, depending on the individual's size and species.

Currently, 16 species of *Uromastyx* are recognized, but the taxonomy of the genus has been somewhat confused in recent years, with subspecies being promoted and new species or subspecies being described. Several new species have recently been described such as *Uromastyx alfredschmidti* (Wilms and Böhme, 2001); *U. flavifasciata* and *U. occidentalis* (Mateo *et al*., 1998); *U. leptieni* (Wilms and Böhme, 2000). The distribution ranges of individual species of *Uromastyx* are shown in Table 1. These are based on information provided by the UNEP-WCMC (United Nations Environment Programme-World Conservation Monitoring Centre) database and JNCC (Joint Nature Conservation Committee) checklist for CITES species 2001. To date no standard reference has been adopted within CITES for the genus and at CoP12 the Nomenclature Committee decided to develop a standard reference checklist for the genus [CoP12 Doc. 10.3 (Rev.)]. Due to the lack of a standard nomenclature references, there seems to be some confusion about the use of certain species names and whether a species occurs in a particular range States or not. For example, Egypt is not listed as a range State for *U. acanthinura*, however the country has reported exports and established an export ban for the species. Moreover, one species, *U. maliensis*, described by Joger and Lambert in 1996 and by some considered a subspecies of *U. dispar*, is not listed in the UNEP-WCMC database nor the JNCC Checklist, but is reported in trade (e.g. 23,000 specimens imported from Mali into the USA in 2001 –Source: 'LEMIS' database, USA) and the EU has established an import restriction for this species.

The habitats of *Uromastyx* are, in most cases, not directly threatened in the foreseeable future, as they mainly comprise desert of no commercial value, away from human habitation. However, these lizards have been in international trade for several decades and collecting is considered the major threat to wild populations (Highfield and Slimani, 1998). Concern about the sustainability of this trade has led to the inclusion of all *Uromastyx* species in Appendix II of CITES. In addition, a number of trade restrictions specific to certain species or countries, have been applied to *Uromastyx* since then (Table 1). Although currently no evidence exists that any of these species is threatened as a whole, and none of these species are listed on IUCN's Red List, the scale of exploitation, including domestic utilisation is likely to lead to local depletions. Some of species are used domestically for food and medicine (Walls, 1996; Anon. 1999).

Regulation of trade at international and national level

CITES

The genus *Uromastyx* has been listed in Appendix II of CITES in February 1977. *Uromastyx aegyptia* was subject to a Review of Significant Trade in Specimens of Appendix-II Species in 1999, and the report was submitted for consideration by the Animals Committee (AC) at its 15th meeting, in July 1999. The populations of *U. aegyptia* of Egypt were classified under category ii) of Resolution Conf. 8.9[1] and all other populations under category iii). The AC recommended that Egypt:

1) Provide detailed information on how it was determined that the quantities of specimens of this species exported in the years from 1991 onwards were not detrimental to the survival of the species;
2) Provide details of the quantities of specimens of this species exported in the years 1997-1999, if any; and

[1] Amended at CITES 11th and 12th meeting of the Conference of the Parties to become Resolution Conf. 12.8, with the following definitions for two of the three categories relevant to *Uromastyx*,
"ii) 'species of possible concern' shall include species for which it is not clear whether or not these provisions are being implemented; and
iii) 'species of least concern' shall include species for which the available information appears to indicate that these provisions are being met;"

3) Provide details of the present policy on exports of this species, and inform the Secretariat whether the present policy allows for export of the species.

Some *Uromastyx* range States have established export quotas that have been communicated to CITES Parties since 2000 (Table 1).

Table 1. Distribution of *Uromastyx* species and their legal status under CITES and the EU Wildlife Trade Regulations

Scientific name	Distribution	CITES App.	EC Reg. Annex	Trade restrictions
*U. acanthinura***	Algeria, Libya, Morocco, Tunisia, (Western Sahara?)	II	B	Since 10/09/1998 negative SRG opinion on all wild specimens from Sudan according to Article 4.2 (a) 22/02/2000: No opinion for Egypt Since 01/03/2003 imports of all wild specimens from Sudan suspended under Article 4.6(b) in Commission Regulation No. 349/2003.
*U. aegyptia***	Bahrain*, Egypt, Iran, Iraq*, Israel, Jordan, Kuwait, Oman*, Qatar, Saudi Arabia, Syria, United Arab Emirates	II	B	26/10/1999 negative SRG opinion on specimens from Egypt of source F. 22/02/2000: No opinion for Egypt Since 01/03/2003 imports from Egypt suspended under Article 4.6(b) in Commission Regulation No. 349/2003 (for specimens born in captivity, but do not meet criteria of Chap. II of Reg. (EC) No. 1808/2001 are not met). NOTE: The species was listed by Tunisia in CITES Appendix III in April 1976, but Tunisia not listed as range State.
U. alfredschidti	Algeria, Libya	II	B	
U. asmussi	Afghanistan, Iran, Pakistan	II	B	
*U. benti***	Oman*, Saudi Arabia, Yemen	II	B	
*U. dispar***	Algeria, Chad, Egypt, Mali, Mauritania, Sudan, Western Sahara	II	B	
*U. geyri***	Algeria, Mali, Niger	II	B	CITES Export Quota of 32,000 live specimens from Mali in 2001, 2002 and 2003.
*U. hardwickii***	Afghanistan, India, Pakistan	II	B	
U. leptieni	Oman*, United Arab Emirates	II	B	
U. loricata	Iran, Iraq*	II	B	
*U. macfadyeni***	Ethiopia, Somalia	II	B	
U. maliensis	Algeria, Mali	II	B	Since 22/02/2000 negative SRG opinion on imports of all wild specimens from all countries of origin 02/12/2002 negative SRG Opinion for captive bred specimens (source C) from El Salvador Since 01/03/2003 imports suspended under Article 4.6(b) in Commission Regulation No. 349/2003. 09/11/2003 Negative opinion for captive bred specimens (source C) from El Salvador removed
U. occidentalis	Western Sahara	II	B	
*U. ocellata***	Djibouti, Egypt, Eritrea, Israel, Jordan, Saudia Arabia, Somalia, Sudan, Syria, Yemen (Ethiopia?)	II	B	CITES Export Quota of 3,600 live specimens from Ethiopia for 2000, 2001, 2002 and 2003. 22/02/2000: No opinion for Djibouti, Egypt, Saudi Arabia, Yemen Since 26/03/01 negative SRG opinion for specimens from Ethiopia because not a country of origin.
U. princeps	Somalia	II	B	
*U. thomasi***	Oman*, Saudi Arabia, Yemen	II	B	22/02/2000: No opinion for Oman

* Range States that are not Parties to CITES

** Species for which CITES trade data are available from UNEP-WCMC.

Source: UNEP-WCMC Species Database; TRAFFIC Europe, Conclusions of SRG meetings

EU trade regulations - SRG Opinions and import suspensions

The Scientific Review Group (SRG) of the EU, which is composed of representatives of the CITES Scientific Authority of each EU Member State meets three to four times a year to review and consider whether or not the import of certain species from certain range States may have a detrimental effect on the conservation status of the species.

In cases where concerns exist the SRG can establish a negative opinion on the import of certain species from certain range States. Consequently all EU Member States are not allowed to issue import application for the identified species/country combination until further information has been received. In cases where the concerns have been confirmed the EU can establish an import suspension that will be published in the Official Journal of the EU. The negative opinions and import suspensions established for *Uromastyx* are shown in Table 1.

National trade bans

In October 1991, the Egyptian government declared an export ban on *U. acanthinura, U. aegyptia, U. ocellata* and *U. ornata* from its country (CITES Notification No. 662 of 16 January 1992).

METHODS

Sources of information and limitations

Data on trade in *Uromastyx* were obtained from the CITES Trade Database maintained by UNEP-WCMC, which contains information on imports, exports and re-exports of CITES-listed species, provided by all Parties to CITES in the form of Annual Reports. For most of the analyses, exports and re-exports were collated and unless re-exportation is specifically mentioned in the text, any reference to exports includes re-exports.

The database contains trade records for nine *Uromastyx* species (Table 1). For six of these, data are available between 1977 and 2001 whereas for the other three, data only go back to 1988. Data for 2002 and 2003 are not yet available. An initial analysis revealed that little trade in *Uromastyx* occurred before the 1990s. Data prior to 1990 were therefore ignored for most of the analysis, allowing more accurate comparisons between countries and species, given that data are not available for all species before 1990.

As well as containing information about the number of specimens traded between countries, the database also details each specimen's source (e.g. captive-bred, taken from the wild, etc.), its form (e.g. live, dead body, skin, handbag or other derivative) and the purpose (e.g. commercial trade, scientific or zoos) of the transaction. Full source information was only reported consistently from 1991 onwards. The CITES database also contains information on 'illegal trade', i.e. some of the trade reported with source code 'I'. However, because the CITES Trade Database only contains records of specimens that are seized and reported, this only provides a very rough idea of actual levels and trends in illegal trade. In addition, there are inconsistencies in the use of the relevant source code, which complicates analysis of the data and an assessment of illegal trade levels (document Inf. 7 of the EU Committee 28th meeting, prepared by TRAFFIC Europe). For the analysis of 'illegal trade' only trade reported with source code 'I' in combination with the purpose codes 'T' (=commercial trade) and 'P' (= personal) or without any purpose code was used.

Some of the range States of *Uromastyx*, namely Iraq, Bahrain and Oman, are not CITES Parties and are thus not required to provide data on their annual trade. Therefore, unless reported by a CITES Party trade partner, their trade is often lacking from the statistics. On top of this, although they are required to do so, not all CITES Parties submit their Annual Reports, leading to gaps in the database and underestimates in the volume of trade.

For Parties that submit their reports, reported imports and exports may differ for a single transaction, either in the quantity of specimens or in the purpose, source or form of the specimens. In cases where discrepancies between import and export records occurred, the information provided by the importer was used.

Finally, it is important to stress that the results and conclusions based on the analysis of the CITES Trade Database are only as accurate as the reported data. The database only covers the fraction of international trade that is reported, and is therefore most likely an underestimate of the actual volumes of trade. However, this is the best source of data on international trade and despite the limitations, this provides a valuable estimate of international trade patterns.

RESULTS

Number of specimens in trade

Between 1977 and 2001, a total of 215,838 specimens of *Uromastyx*, including at least nine species, were reported in international trade. According to the CITES trade data, trade in *Uromastyx* occurred at a relatively low level until 1994, but increased rapidly and almost continuously afterwards. Ninety-three percent of all specimens ever traded were traded after 1993 (Figure 1). Between 1993 and 2001, the number of specimens traded annually increased from 1,630 to almost 45,000. The sharp increase in the international trade in *Uromastyx* does not appear to be leveling off, but instead, the period 2000-2001 shows the greatest increase for any year since data were first recorded in 1977.

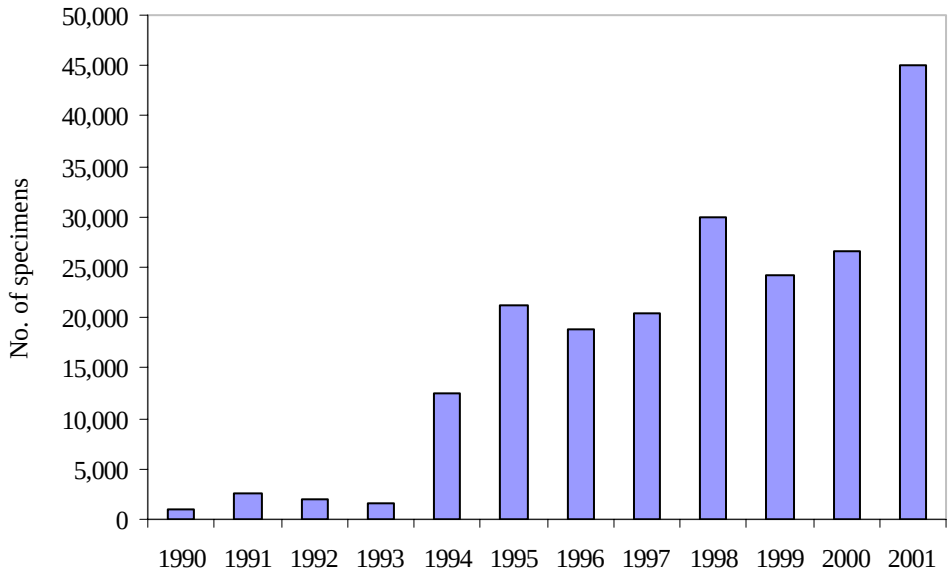


Figure 1. Number of specimens of *Uromastyx* reported as net exports in international trade from 1990 to 2001.
Source: CITES trade data, UNEP-WCMC, 2003

Species in trade and trends

In total, nine species of *Uromastyx* have been reported in CITES trade data. However, trade is not split equally between the different species of *Uromastyx* (Table 2). *U. dispar* s the species traded in the largest quantities, representing almost 40% of the total trade in the genus reported between 1977 and 2001. In 2001 alone more then 27,000 specimens have been reported in trade. But the species has only been reported in international trade since 1996. Over the 25 year period the species composition has clearly changed (Fig. 2): in the first years of the nineties (1990-1995) the two main species in trade were *U. aegyptia* and *U. ocellata*, in the following years trade in *U. acanthinura* increased rapidly and was the species traded in the highest quantities in 1996 and 1997.

More recently, *U. dispar* is the species traded in the highest numbers followed by *U. acanthinura, U. aegyptia and U. ocellata* (Table 2). *U. dispar* is not only the most important *Uromastyx* species in terms of total trade but also shows the most rapid increase in recent trade (Table 2). Together, trade in *U. dispar, U. acanthinura, U. aegyptia* and *U. ocellata* account for over 75% of all specimens reported in trade. The other species reveal no clear pattern but instead, trade levels have fluctuated over time since the early 1990s.

Although *U. geyri* is only the fifth most traded species, levels of trade in this species have increased considerably between 2000 and 2001 (Table 2 and Figure 3).

Table 2. Numbers of specimens of *Uromastyx* spp. reported in international trade by CITES Parties from 1977 to 2001.

Species	1977-89	1990-95	1996	1997	1992	1999	2000	2001	Total	%
U. dispar	0	0	2,578	1,747	18,257	13,578	15,303	27,760	79,223	37
U. acanthinura	1,406	3,626	9,713	8,833	2,383	431	1,198	2,176	29,766	14
U. aegyptia	1,198	16,686	1,093	1,407	2,681	1,087	906	614	25,672	12
U. ocellata	555	13,801	928	525	1,469	2,627	3,565	1,194	24,664	11
U. geyri	0	0	2,400	1,586	114	0	200	4,484	8,784	4
U. benti	14	1,466	1,686	566	8	1,500	531	1,700	7,471	3
U. hardwickii	1,747	441	5	0	0	0	960	580	3,733	2
U. macfadyeni	1	0	0	7	18	0	0	21	47	<1
U. thomasi	4	1	0	0	16	0	0	0	21	<1
Uromastyx spp.	4,850	4,861	358	5,795	5,092	5,082	3,960	6,459	36,457	17
Total	9,775	40,882	18,761	20,466	30,038	24,305	26,623	44,988	215,838	100

Source: CITES trade data, UNEP-WCMC, 2003

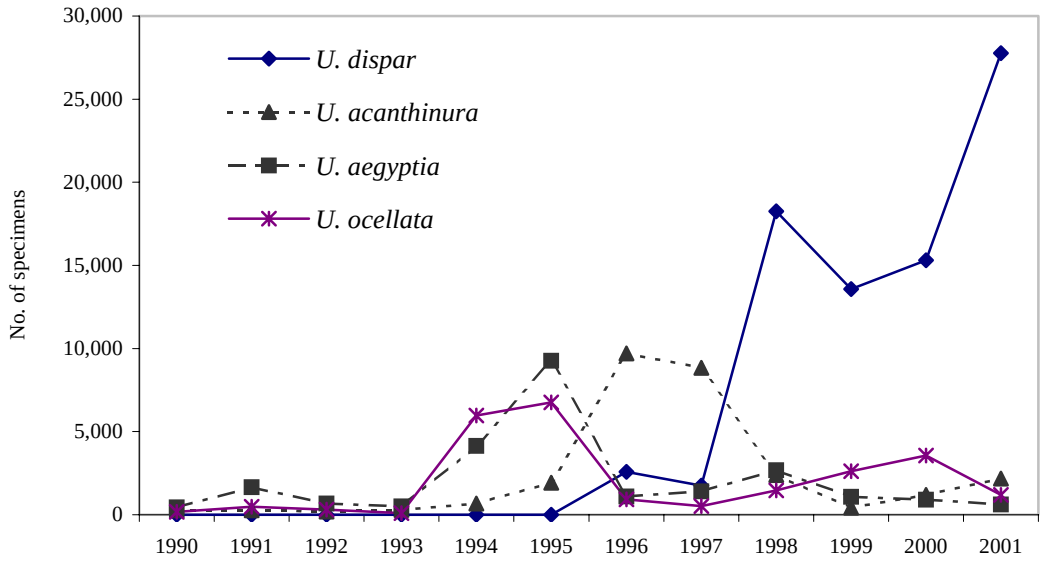


Figure 2. **Trade trends for *U. dispar, U. acanthinura, U. aegyptia* and *U. ocellata* reported in international trade from 1990 to 2001.**
Source: CITES trade data, UNEP-WCMC, 2003

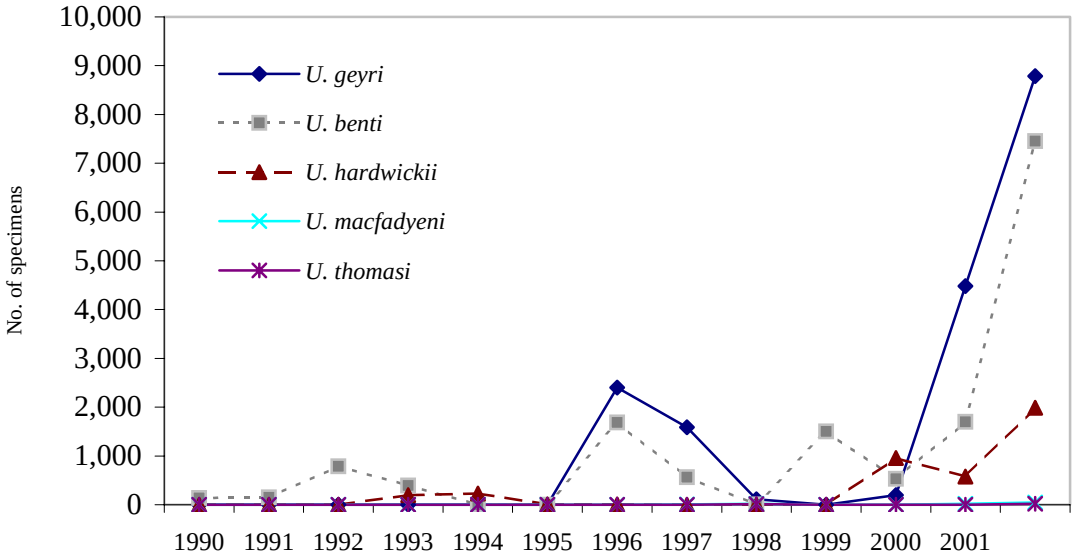


Figure 3. **Trade trends for *U. geyri, U. benti, U. hardwickii, U. macfadyeni* and *U. thomasi* reported in international trade from 1990 to 2001.**
Source: CITES trade data, UNEP-WCMC, 2003

Characteristics of the trade – specimens in trade, source and purpose

Of the 215,838 *Uromastyx* specimens that were reported in international trade between 1977 and 2001, 98% (=211,521) were traded as live animals; the rest were traded in various forms including wallets, dead bodies, handbags, skin or leather items, carvings, garments, skulls and trophies. Of the 189,895 specimens traded between 1977 and 2001 and for which the purpose of the transaction is known, 99.7% were traded for commercial purposes. Other purposes include scientific research, circuses and traveling exhibitions, reintroduction or introduction into the wild, breeding in captivity or artificial propagation, personal effects, zoos and education.

For all the species of *Uromastyx*, except *U. harwickii*, between 80% and 100% of traded specimens were reported to be of wild origin, rather than being captive-bred. In the case of *U. hardwickii*, only 25% of traded specimens originated in the wild. Summing across all species, the absolute level of international trade in captive-bred specimens has fluctuated over time (Table 3).

Table 3. Number of captive-bred specimens of *Uromastyx* reported by CITES Parties in international trade annually.
(Note: Captive-bred specimens include ranched specimens and first-generation animals born in captivity).

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total
Captive-bred	934	91	267	752	304	41	784	672	64	1,010	819	5,738

Source: CITES trade data, UNEP-WCMC, 2003

The largest exporter of wild specimens is Mali [Table 4(a)] whereas the UK is the largest exporter of captive-bred specimens [Table 4(b)]. Together, Mali and Egypt export over 70% of all wild specimens. Egypt is the only country that appears in the top five exporters for both captive-bred and wild-taken specimens.

Table 4. Top-five exporters (including re-exports) of specimens of *Uromastyx*:
Sum of specimens exported by each country during the period studied from 1990 to 2001,
(a) wild specimens (N=120,492) and (b) captive-bred specimens (N=5,738).

(a)

Country	Number of specimens	% all specimens
Mali	61,823	51.3
Egypt	26,710	22.2
Yemen	8,073	6.7
Sudan	8,037	6.7
Benin	4,554	3.8

(b)

Country	Number of specimens	% all specimens
United Kingdom	1,665	29.6
Egypt	830	14.8
Slovenia	720	12.8
Canada	551	9.8
Ukraine	450	8.0

Source: CITES trade data, UNEP-WCMC, 2003

Exporters and importers

Exporters

Nowadays, Mali is by far the largest exporter of specimens of *Uromastyx* and more than 60% of all *Uromastyx* reported in international trade since 1977 have been exported from the country, which is three times more than the second largest exporter, Egypt (Table 5). Sudan, Yemen and the UAE are other important exporting countries. Three of the ten largest (re-)exporters are a member of the EU: Spain, the United Kingdom and Germany, however in total the (re-)exports of specimens of *Uromastyx* from the EU account for not more than 3% of the total trade.

Table 5. Number of specimens of *Uromastyx* exported and re-exported per range States* from 1977 to 2001.

Exporter	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total	%
Range States	5,147	38,975	18,485	18,447	28,304	23,795	22,354	41,123	198,630	92
Mali	1,029	1,000	14,368	15,481	24,027	18,731	18,753	37,237	130,626	61
Egypt	2,056	33,904	1,453	0	673	350	0	0	38,436	18
Sudan	0	1,233	868	0	1,491	2,038	2,075	1,152	10,857	5
Yemen	14	1,466	1,686	1,658	0	1,897	500	1,700	8,921	4
UAE	0	400	0	1,300	2,050	715	905	608	5,978	3
Pakistan	1,839	32	0	0	0	0	0	0	1,871	1
Israel	123	623	0	0	0	0	0	0	746	<1
Morocco	11	187	103	2	1	10	105	18	437	<1
Niger	0	0	0	0	0	0	0	308	308	<1
Saudi Arabia	63	121	0	0	20	0	0	6	210	<1
Algeria	0	7	7	6	5	41	4	22	92	<1
Ethiopia	0	0	0	0	0	0	0	67	67	<1
Oman	3	0	0	0	24	0	0	0	27	<1
Libya	0	1	0	0	11	7	0	2	21	<1
Mauritania	0	0	0	0	0	0	11	3	14	<1
Jordan	6	0	0	0	0	0	0	0	6	<1
Western Sahara	0	0	0	0	0	6	0	0	6	<1
Tunisia	3	0	0	0	0	0	0	0	3	<1
Iran	0	0	0	0	1	0	0	0	1	<1
Bahrain	0	1	0	0	0	0	0	0	1	<1
Syria	0	0	0	0	0	0	1	0	1	<1
Chad	0	0	0	0	1	0	0	0	1	<1
EU Member States	4,605	948	6	629	474	4	441	314	6,433	3
Spain	3,154	1	0	130	0	1	0	0	3,286	2
United Kingdom	2	434	0	425	470	0	410	311	2,058	1
Germany	96	487	0	0	0	0	31	0	620	<1
France	257	0	0	0	0	0	0	0	257	<1

Exporter	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total	%
Austria	69	21	0	0	0	3	0	0	93	<1
Belgium	0	0	0	50	0	0	0	0	50	<1
Netherlands	12	0	0	18	4	0	0	0	34	<1
Denmark	15	5	6	6	0	0	0	0	32	<1
Sweden	0	0	0	0	0	0	0	3	3	<1
Other African countries	1	173	56	957	884	96	678	2,935	5,699	3
Other European countries	3	775	68	426	234	210	2,630	587	4,003	2
North America	0	8	145	7	141	0	520	0	821	<1
Asia	1	0	0	0	1	200	0	28	230	<1
Unknown	17	3	1	0	0	0	0	1	22	<1
Total	9,774	40,882	18,761	20,466	30,038	24,305	26,623	44,988	215,838	100

* Benin is not included in this table because it is not a range State, although the country's annual reports include exports of *Uromastyx* declared of wild source (W) [Table 4 (a)]
Source: CITES trade data, UNEP-WCMC, 2003

Exports – trends

Over the 25-year period there has been a clear shift with regard to the main exporting countries of *Uromastyx* (Figure 4, Table 5) and this is very similar to changes observed in the species composition of the total trade (Figure 2). Until 1995, Egypt was the biggest exporter of *Uromastyx* (and this despite an export ban for all *Uromastyx* from Egypt that was established in 1991). In 1996, Egyptian exports plummeted and at the same time exports from Mali increased drastically. Since 1996 Mali has been the largest exporter (Figure 4). In 2001, more than 80% of the total exports of *Uromastyx* originated from Mali. Table A in the Annex of this report shows in detail which species has been reported as exports from which country.

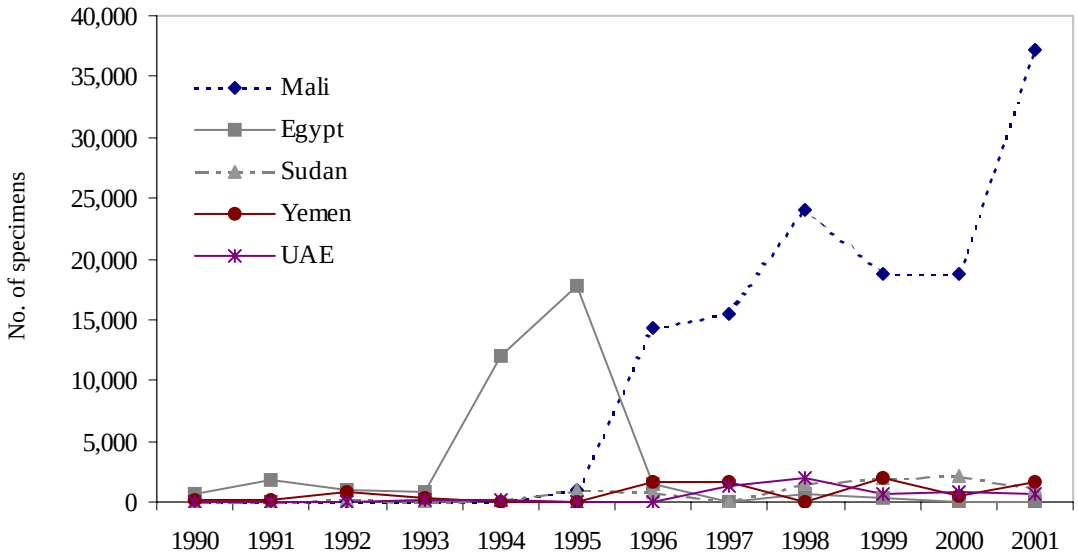


Figure 4. Total number of *Uromastyx* specimens exported from 1990 to 2001 for the five largest exporting range States* (UAE = United Arab Emirates).
Source: CITES trade data, UNEP-WCMC, 2003
* Benin is not included in this table because it is not a range State, although the country's annual reports include exports

Importers

The United States (USA) is by far the largest importer of *Uromastyx* and between 1977 and 2001 the USA imported a total of 149,630 specimens, accounting for almost 70% of the total trade (Table 6). The member States of the EU have imported 41,021 specimens over the same time period, which represents approximately 20% of the total imports. Within the EU, Belgium, France and Germany are the largest

importers and only Luxembourg and Portugal have not reported any imports of *Uromastyx* between 1977 and 2001. The imports into the USA have increased steadily since the Mid 1990s and have shown a drastic increase from the year 2000 to 2001 (Figure 5). Imports into the EU have fluctuated in the mid 1990s and have recently started to increase again after having fallen to around 2,000 specimens in 1999. Table B in the Annex shows the number of specimens per species imported per country between 1977 and 2001. Figure 6 illustrates trade flows between the most important exporting and importing countries.

Table 6. Number of specimens of *Uromastyx* imported into the USA, EU Member States and other countries from 1977 to 2001.

Importer	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total	%
USA	5,879	28,982	7,428	13,397	18,439	20,159	18,465	36,881	149,630	69
Sub-total EU	3,334	4,993	9,619	4,361	10,299	2,024	2,995	3,396	41,021	19
Belgium	*0*	*1,277*	*2,800*	*2,200*	*7,765*	*100*	*250*	*350*	*14,742*	*7*
France	*71*	*1,495*	*5,216*	*1,875*	*967*	*50*	*700*	*656*	*11,030*	*5*
Germany	*1,764*	*1,106*	*425*	*106*	*745*	*658*	*761*	*1,909*	*7,474*	*3*
Spain	*9*	*358*	*313*	*113*	*531*	*413*	*357*	*79*	*2,173*	*1*
Netherlands	*24*	*196*	*25*	*6*	*200*	*600*	*725*	*275*	*2,051*	*1*
United Kingdom	*1,307*	*335*	*578*	*0*	*1*	*100*	*0*	*101*	*2,422*	*1*
Italy	*40*	*34*	*260*	*25*	*90*	*100*	*100*	*0*	*649*	*<1*
Denmark	*87*	*166*	*0*	*29*	*0*	*0*	*0*	*0*	*282*	*<1*
Sweden	*19*	*0*	*0*	*0*	*0*	*1*	*100*	*25*	*145*	*<1*
Austria	*13*	*26*	*2*	*0*	*0*	*0*	*0*	*0*	*41*	*<1*
Finland	*0*	*0*	*0*	*7*	*0*	*2*	*0*	*0*	*9*	*<1*
Greece	*0*	*0*	*0*	*0*	*0*	*0*	*2*	*0*	*2*	*<1*
Ireland	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*<1*
Japan	45	5,052	733	1,491	664	1,023	1,242	554	10,804	5
Canada	19	91	68	230	289	461	318	1,770	3,246	2
Benin	0	0	0	0	0	0	2,220	0	2,220	1
Switzerland	226	356	177	149	208	238	325	164	1,843	1
El Salvador	0	0	0	0	0	0	0	1,558	1,558	1
Ghana	0	0	20	500	50	132	520	0	1,222	1
Indonesia	0	820	4	2	0	0	0	0	826	*<1*
Czech Republic	0	386	100	0	0	5	200	0	691	*<1*
Ukraine	0	0	402	160	55	0	0	0	617	*<1*
Hong Kong	0	2	0	0	18	40	161	160	381	*<1*
Slovenia	0	0	0	0	0	0	0	300	300	*<1*
Poland	0	0	100	0	0	150	0	25	275	*<1*
Monaco	257	0	0	0	0	0	0	0	257	*<1*
Unknown	0	129	0	0	0	0	0	0	129	*<1*
Taiwan	0	10	0	0	0	3	0	100	113	*<1*
Mexico	0	0	0	19	0	6	57	25	107	*<1*
Guinea	0	0	100	0	0	0	0	0	100	*<1*
Morocco	0	0	0	100	0	0	0	0	100	*<1*
Other countries *	15	61	10	57	16	64	120	55	398	*<1*
Total	9,775	40,882	18,761	20,466	30,038	24,305	26,623	44,988	215,838	100

* Includes 20 countries

Source: CITES trade data, UNEP-WCMC, 2003

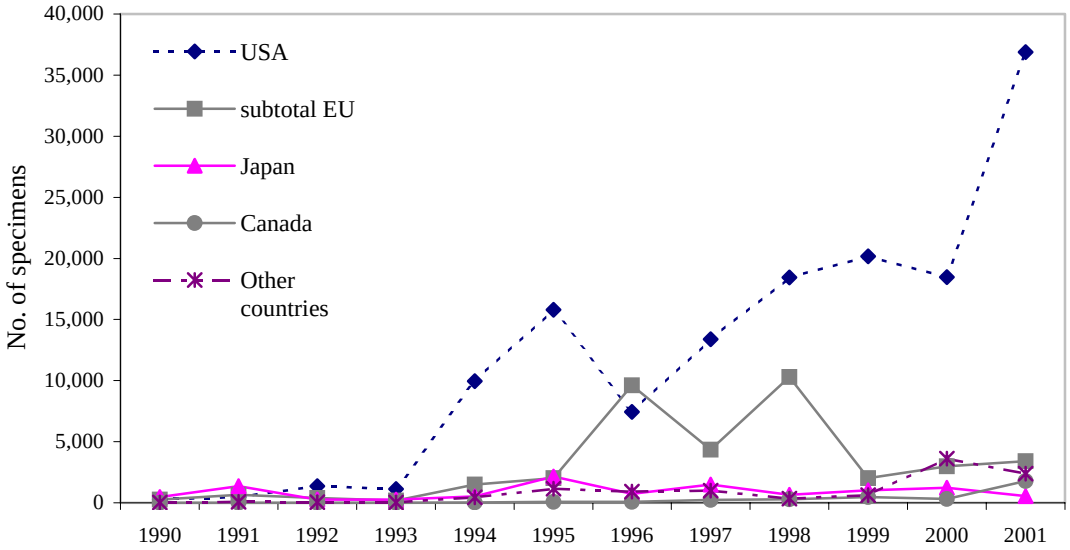


Figure 5. **Total number of *Uromastyx* specimens imported by the US, the EU, Japan, Canada and other countries from 1990 to 2001.**
Source: CITES trade data, UNEP-WCMC, 2003

Figure 6. **Most important exporting and importing countries of *Uromastyx* spp. during 1990-2001**
Source: CITES trade data, UNEP-WCMC, 2003

EU imports - countries of origin and species

The EU imports *Uromastyx* from a wide range of countries of which the most important are Mali, Sudan, Egypt, Benin (**re-exports**) and the United Arab Emirates. Until 1994, Egypt was the biggest exporter of *Uromastyx* to the EU (Note: exports were already nationally banned in 1991), but only in 1996 did Egyptian exports to the EU cease. Around this time, EU imports from the four other main exporters increased, particularly imports from Mali (Figure 7).

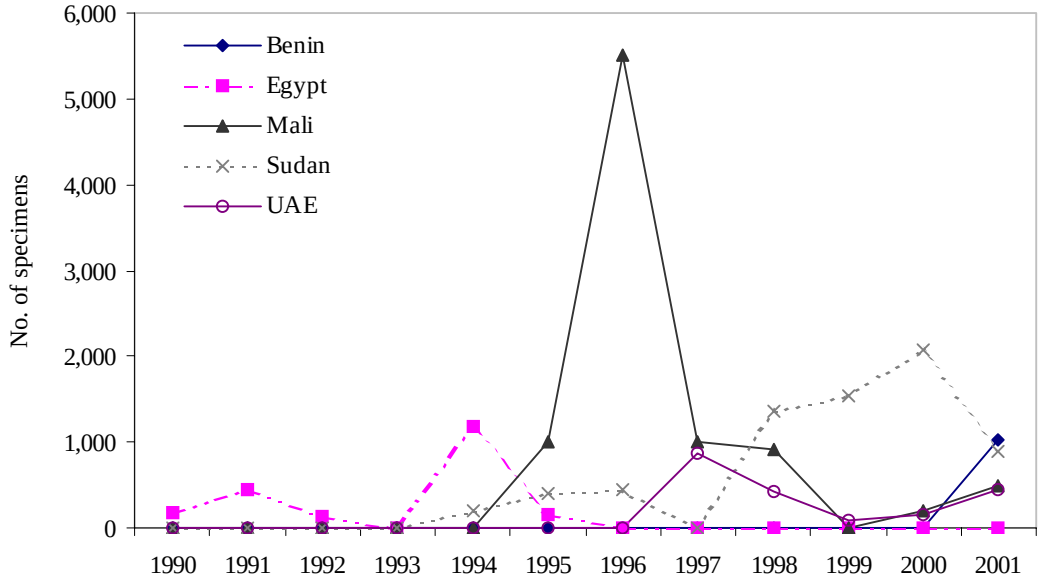
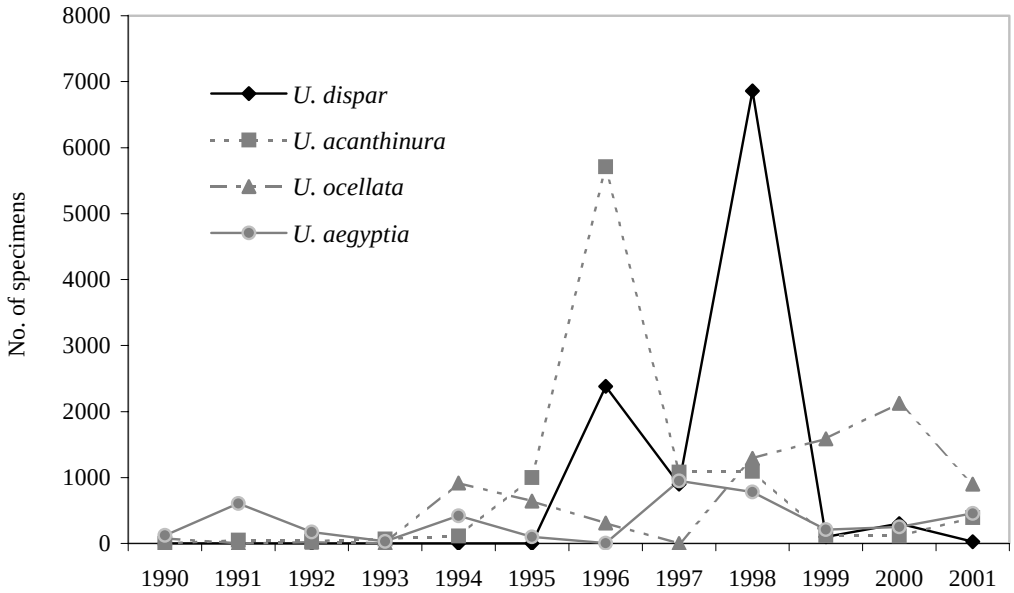


Figure 7. Changes in volume of *Uromastyx* imports by the European Union (EU), from 1990 to 2001, from the five main CITES Parties supplying EU markets (UAE = United Arab Emirates).
Source: CITES trade data, UNEP-WCMC, 2003

Although *U. acanthinura* and *U. dispar* are the species of this genus imported in the highest numbers into the EU, import levels have been relatively low since 1999 [Figure 8a)]. On the other hand, imports of *U. geyri* have increased considerably in recent years [Figure 8b)].

Figure 8a) and 8b). Annual number of specimens imported into the EU for,
(a) the four most imported species of *Uromastyx*; and (b) the four least imported species of *Uromastyx*.
Source: CITES trade data, UNEP-WCMC, 2003

a)



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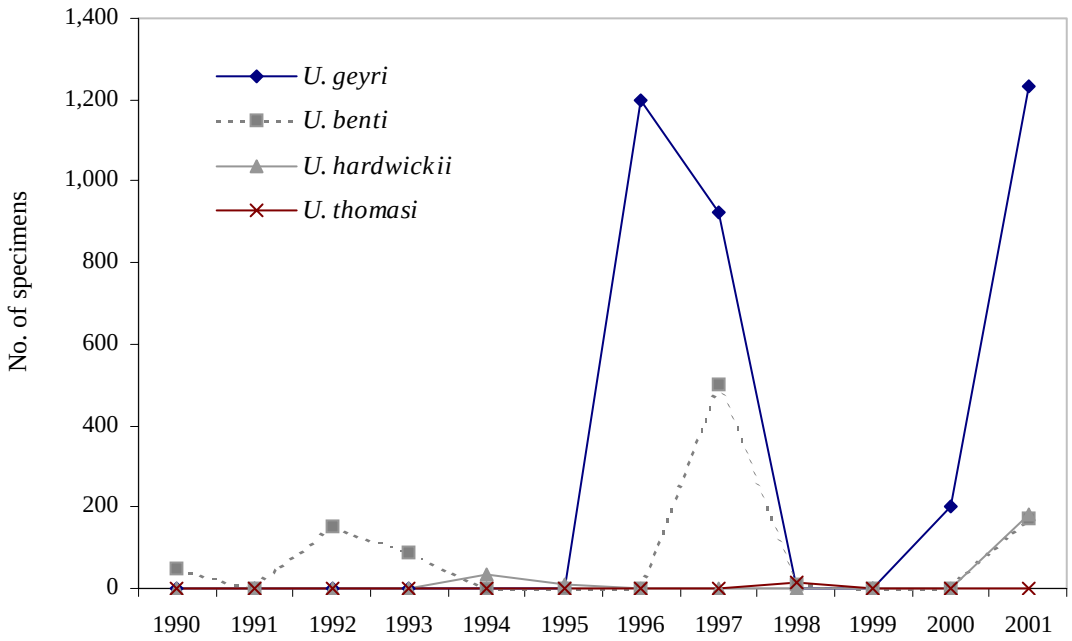

US imports

Of the eight species of the genus *Uromastyx*, which are imported by the USA, *U. dispar* is both the most imported species and the one showing the greatest recent increase in imports (Table 7).

Table 7. Number of specimens of species of *Uromastyx* imported into the USA from 1990 to 2001.

	1990-1995	1996	1997	1998	1999	2000	2001	Total
U. dispar	0	0	362	10,849	12,555	11,270	23,810	58,846
U. aegyptia	13,005	779	352	1899	865	634	135	17,669
U. acanthinura	1704	75	6431	1069	283	266	1612	14,440
U. ocellata	8761	572	345	0	683	1440	292	12,093
Uromastyx spp.	4473	111	5638	4622	4277	3675	6426	29,222

Source: Importer report in CITES trade data, UNEP-WCMC, 2003

Case studies: implementation of EU imposed import restrictions and CITES export quotas in selected range States

Egypt

In October 1991, the Egyptian government declared an export ban on *U. acanthinura*, *U. aegyptia*, *U. ocellata* and *U. ornata* (CITES Notification No. 662 of 16 January 1992). According to the UNEP-WCMC database and JNCC Checklist, Egypt is listed as a range State for only two of these species: *U. aegyptia* and *U. ocellata*; while *U. ornata* is likely to be a subspecies *of U. ocellata* (Wilms and Fagre, 1995) and *U. acanthinura* is apparently not reported as occurring in Egypt.

Egypt has not submitted annual reports for seven years in the study period (1986-1991). Based on Egyptian export records (Table A in Annex), the self-declared export ban adopted in late 1991 for *U. acanthinura*, *U. aegyptia* and *U. ocellata* would appear to have been quite successfully implemented; as from 1991 to 1998 Egypt reported virtually no exports of these species. However, looking at importing countries' reports, a very different picture appears (Figure 9), with hundreds or thousands of specimens of all three species being reportedly imported from Egypt, particularly from 1993 to 1996. Discrepancies between import and export records are common, but in this case the differences are enormous and strongly suggest that animals are being exported in large quantities from Egypt despite the country's self-declared export ban (October 1991, notified to CITES Parties in January 1992).

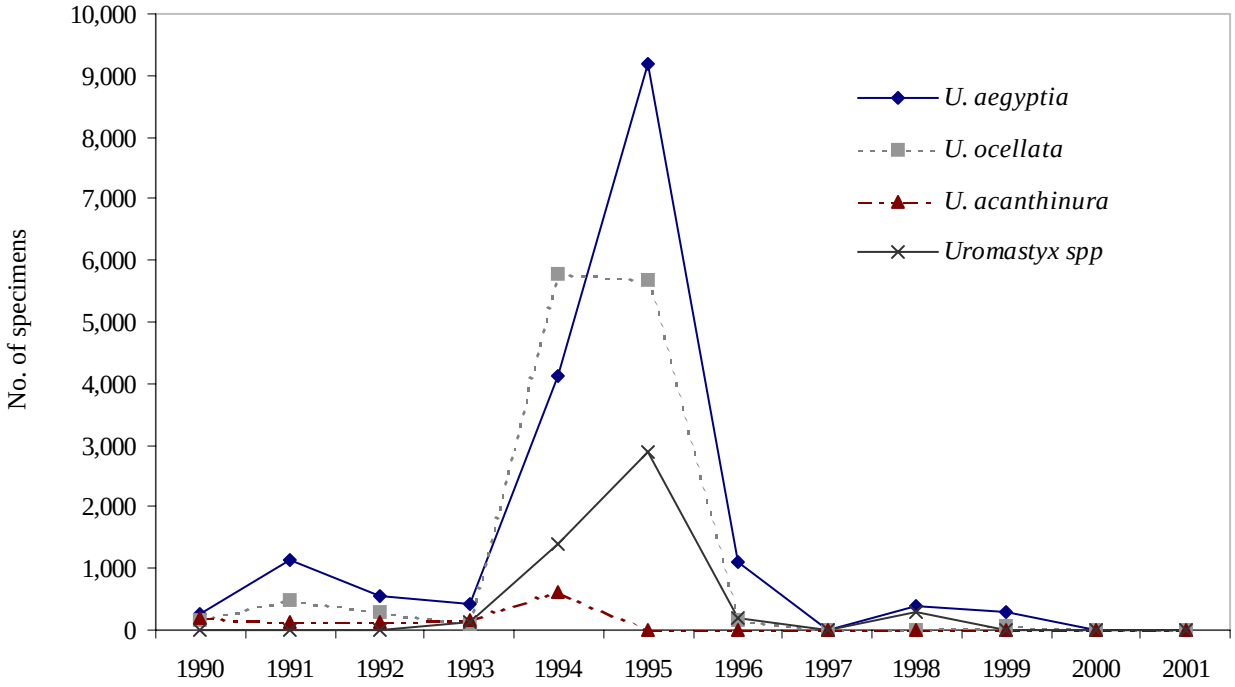

Figure 9. Total number of specimens of *U. acanthinura, U. aegyptia, U. ocellata* and *Uromastyx* spp. – not identified to species level, imported from Egypt during the period 1990-2001.
Source: Importers' CITES trade data, UNEP-WCMC, 2003

Table 8 shows the average levels of exports from Egypt before the national export ban was adopted for the three species (1987-1991) and during the first five years of entry into effect of the ban (1992-1996). Egypt adopted this measure (national export ban), based on import data for the species concerned. For each of the three species investigated, the average number of specimens exported by Egypt was actually higher once the national export ban was in place (right column) than before (left column in Table 8).

Table 8. Mean ± s.d. (standard deviation) number of specimens exported from Egypt during the five years before and after the export ban. N = 5 years before and 5 years after 1991.

	Mean ± s.d. (1987-1990)	Mean ± s.d. (1992-1996)
U. acanthinura	98.20 ± 69.71	185.60 ± 253.48
U. aegyptia	471.60 ± 396.46	3081 ± 3730.69
U. ocellata	204.00 ± 166.08	2407.00 ± 3039.51

Source: CITES trade data, UNEP-WCMC, 2003

Mali

Mali is currently the largest exporter of *Uromastyx* worldwide, however the exports of *Uromastyx* from Mali only started to be reported in 1995. In total Mali, reported the exports of three *Uromastyx* species: *U. acanthinura, U. dispar and U. geyri* and is at the same time the largest exporter for these three species (Table A in Annex). Mali has been exporting between 13,500 and 26,700 specimens of *U. dispar* per year for the past four years (Table A in Annex and Figure 10), but it has not yet established an export quota for this species. However, Mali has established an annual export quota of 32,000 specimens of *U. geyri* for 2003. Given that *U. geyri* is Mali's least exported species, with the highest exports not exceeding 3,000 specimens a year, the basis for the quota for this species and the lack of a quota for *U. dispar* seems questionable. In addition, *U. geyri* is restricted to a small area of Mali, in which the estimated total population size is about 7,500 (Joger, pers. comm. to TRAFFIC Europe, 2003). Consequently, the annual

export quota of 32,000 specimens exceeds the estimated total population size of this species by more than four fold.

The EU has suspended imports of *U. maliensis* from all range States since February 2000 (Table 1). *U. maliensis* is not listed in the UNEP-WCMC database nor in the JNCC checklist and is considered by some to be a sub-species of *U. dispar* (Kohlmeyer, 2002). Consequently, no trade in *U. maliensis* has been reported in the CITES trade database, although some Parties are still including the taxon in their annual reports, such as the USA that declares imports of *U. maliensis* based on information appearing on export permits (TRAFFIC North America, *in litt.* to TRAFFIC Europe, 11 December 2003).

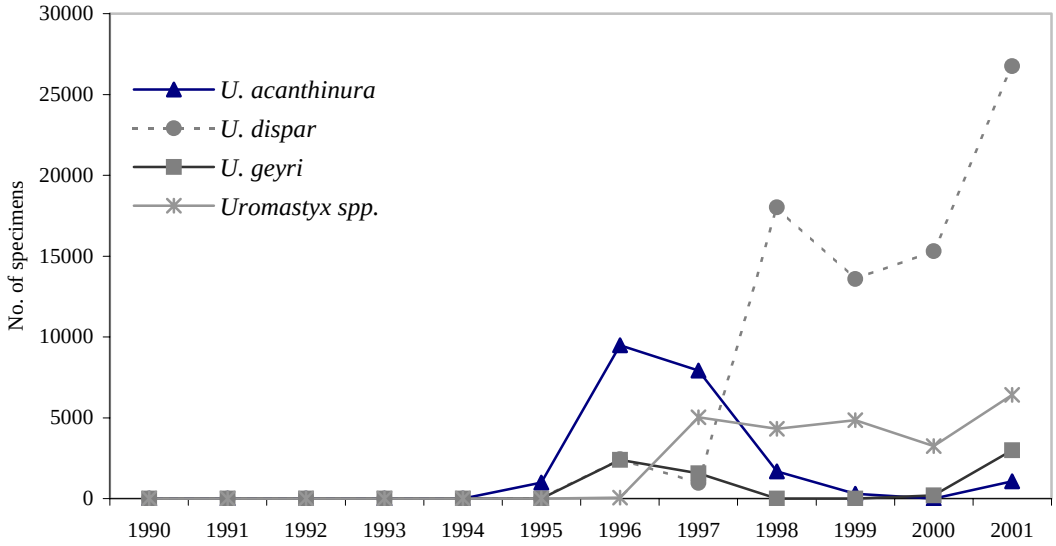

Figure 10. Total number of specimens of *U. acanthinura, U. dispar* and *U. geyri* exported from Mali from 1990 to 2001, as well as the number of exported *Uromastyx* specimens not identified to species level and the total exports per year.
Source: CITES trade data, UNEP-WCMC, 2003

Ethiopia

Ethiopia has established an annual export quota of 3600 specimens of *U. ocellata* since 2000. However, given the level of exports of this species from Ethiopia the quota does not seem justified, because Ethiopia has only ever exported 46 specimens of *U. ocellata* according to CITES trade data.
As there are no data on population sizes in Ethiopia, it is difficult to assess whether exporting 3,600 specimens a year would be detrimental to the population or not. However, following an enquiry by TRAFFIC Europe into the basis for this quota, the Ethiopian Ministry of Agriculture Wildlife Conservation Organization (*in litt.* to TRAFFIC Europe, 2003) informed TRAFFIC Europe that a population survey for *U. ocellata* is planned and that export quotas will be adjusted based on the results of this survey.

The SRG of the EU established in March 2001 a negative opinion on the import of *U. ocellata* from Ethiopia based on the grounds that Ethiopia is not a range State. The basis for this assumption is not known, however the information provided by Ethiopia to TRAFFIC Europe and the fact that Ethiopia does establish an export quota for this species since 2000 do suggest that Ethiopia considers itself as a range State for *U. ocellata*.

Sudan

Sudan has exported three species of *Uromastyx: U. acanthinura, U. aegyptia* and *U. ocellata*, however its total exports are strongly dominated by *U. ocellata* (Figure 11). In March 2003, the EU has suspended imports of wild specimens of *U. acanthinura* from Sudan according to Article 4.6(b) of Council Regulation 338/97. Exports of *U. acanthinura* were only reported in 1996, 1998, 1999 and 2001 and in total accounted to 469 specimens (Table A in Annex).

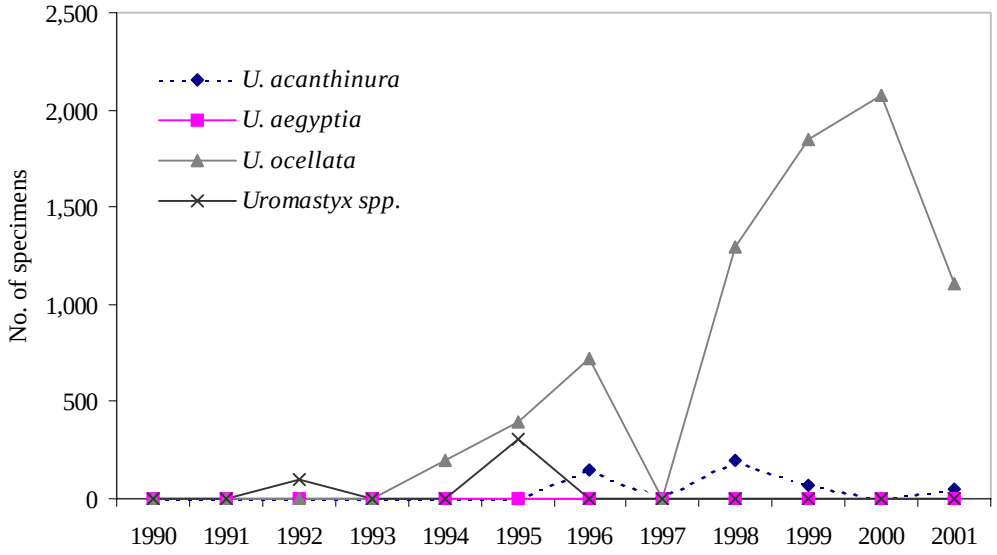

Figure 11. Total number of specimens of *U. acanthinura, U. aegyptia* and *U. acanthinura* exported by Sudan between 1990 and 2001, as well as the number of exported *Uromastyx* specimens not identified to species level and the total exports per year.
Source: CITES trade data, UNEP-WCMC, 2003

Seizures of Uromastyx reported by CITES Parties

Illegal trade cannot be easily quantified due to the difficulty of assessing the level of detection of smuggled specimens and also to insufficient reporting practices by some CITES Parties. Additionally, CITES data cover only the fraction of illegal trade that is detected and reported (using source code "I" = see *Methods*). As it is not known what percentage of the total illegal trade this represents, it is very difficult to draw any firm conclusion from such data. Reports on illegal trade should therefore be treated with caution.

Overall, based on data reported by CITES authorities in their annual reports, the number of specimens reported in seizures and confiscation –only 2205 specimens of *Uromastyx* from 1991 to 2001, appears relatively low in comparison with the volume of specimens reported in legal trade (more than 200,000 during the same period). The level of reported seizures and confiscation fluctuates, showing neither an increase nor a decrease over time (Figure 12). Such trends could reflect alternated increases and decreases of illegal activities, but they could also be caused by changes in enforcement efforts and control methods used by customs and police, which are not readily measurable.

Of the total 2205 specimens of *Uromastyx* reported seized from 1991 to 2001, 60% were seized live and 39% as dead bodies. The ratio of live specimens to dead specimens was substantially higher for the reported seizures than for specimens reported in legal trade. This could be due to higher mortality rates in illegal shipments. A similar conclusion was drawn in a study of mortality rates in wildlife trade commissioned by the German CITES Scientific Authority, which found that mortality rates are higher for species that are not shipped in accordance with the IATA regulations (Altherr and Freyer, 2001).

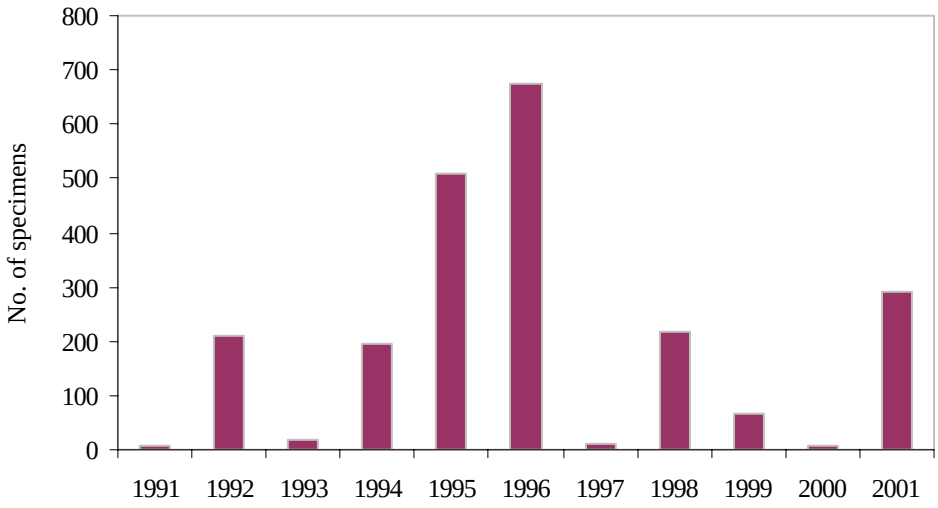

Figure 12. Number of *Uromastyx* specimens reported as seized by CITES Parties from 1991 to 2001.
Source: CITES trade data, UNEP-WCMC, 2003

Over 11 years (1991 to 2001), *U. aegyptia* is the species that was seized in the largest quantities and Egypt the country from where most specimens were reported as seizures or confiscation by importing Parties (Table 9). Of the 1180 specimens exported by Egypt and seized, 79% were *U. aegyptia* and of the 1194 reported seized specimens of *U. aegyptia*, 78% came from Egypt.

However, these high records of illegal trade in spiny-tailed or Dabb lizards from Egypt are probably the positive consequence of the export ban adopted by Egypt for three species of *Uromastyx*, in late 1991. This measure concerns in particular *U. aegyptia*, and is probably the main reason for the high rate of seizures for all three species, which are at the top of the list of *Uromastyx* species reported to be seized by CITES Parties (Table 9). Therefore, *Uromastyx* populations originating from range States other than Egypt, e.g. Mali and Sudan, that do not appear in reported seizures, could in fact be more affected by harvest and exports, due to higher level of permitted trade and the absence of adequate restrictions adopted by the government in charge.

The presence on markets of certain products, such as a traditional medicinal oil used by the Muslim community in Malaysia (TRAFFIC Southeast Asia, *in litt*. to TRAFFIC Europe, 15 December 2003), that are advertised as containing derivatives of *Uromastyx* (Dabb lizard) suggest that these species are imported, although neither official trade nor seizures are reported in the CITES database. The latter suggests that, although probably not as significant as the EU and US pet trade, spiny-tailed lizards used for medicinal purposes are illegally imported into Southeast Asia.

Table 9. Five countries of origin and species of *Uromastyx* reported as seizures from 1991 to 2001.

Country	Number of specimens reported seized
Egypt	1,180
Ukraine	265
South Africa	244
Great Britain	200
Sudan	100
Species	**Number of specimens reported seized**
U. aegyptia	1,194
U. acanthinura	378
U. ocellata	362
U. hardwickii	32
U. dispar	322
Uromastyx spp.	237

Source: CITES trade data, UNEP-WCMC, 2003

CONCLUSIONS

Any assessment of the conservation impact of the international trade in spiny-tailed or Dabb lizards *Uromastyx* is hindered by insufficient basic knowledge on the biological status of *Uromastyx* populations for all 15 (or 16) species of the genus in their range, and by the confusion about the use of different species names due to the lack of standard taxonomic reference. Although the overall impact of trade on the populations of *Uromastyx* cannot be determined without more information on population sizes, the information contained in this report demonstrates that the trade in the genus is thriving and therefore demands attention from the conservation community. The Member States of the EU need to play an important role in this regard, firstly because they are one of the most important importers of wild *Uromastyx* specimens and secondly because its is important that the impact and the consequences of any restrictions imposed (e.g. negative opinion, import suspension) are carefully monitored.

- There are approximately 16 species of *Uromastyx*, however the taxonomy is still subject to debate and there is some confusion about the distribution of the different species and the use of species names for populations in certain range States. There is currently no standard reference recognized by CITES, but there are plans to develop one for the genus.

- CITES Scientific authorities of EU Member States formulated negative opinions and adopted import suspensions for a number of species from certain countries. Two range States (Ethiopia and Mali) have established an export quota for specimens of *Uromastyx* and Egypt established an export ban for three species of *Uromastyx* that was notified to CITES Parties in early 1992.

- According to CITES trade data, a total of 215,838 specimens belonging to at least nine different species of *Uromastyx*, were reported by CITES Parties in international trade from 1977 to 2001.

- Trade levels have increased significantly in the mid 1990s: until 1993, trade levels were relatively low (around an average of 1,000 specimens per year). However, since 1994, trade has increased significantly and in 2001 almost 45,000 specimens were reported in international trade.

- The species traded in the highest numbers from 1977 to 2001, and particularly since the early 1990, was *U. dispar* from Mali (representing 37% of the total trade), followed by *U. acanthinura* (14%), *U. aegyptia* (12%) and *U. ocellata* (11%). However, trade trends have changed over the years: until the mid 90s the two main species in trade were *U. aegyptia* and *U. ocellata*; in 1996 and 1997 trade in *U. acanthinura* increased rapidly and it became the species most in trade. Since then, *U. dispar*, a species that is reported in international trade only since 1994, has been traded by far in the highest quantities.

- The majority (98%) of the specimens reported in trade from 1977 to 2001 were live and for all the species (except *U. harwickii*) from 80% to 100% of traded specimens were reported to be of wild origin.

- Since the early 2000s, Mali has been the largest exporter of *Uromastyx* (comprising 61% of all exports), followed by Egypt (18%), Sudan (5%) and Yemen (4%). Since the mid 90s there has been a clear shift with regard to nations exporting *Uromastyx*: until 1995 Egypt was the largest exporter, exporting mostly *U. aegyptia* and *U. acanthinura*. In 1996, however, Mali started to export high numbers, mostly of *U. dispar*, and has since then increased its exports significantly (> 37,000 specimens in 2001).

- From 1977, when the genus was listed in CITES Appendix II, to 2001, the USA was by far the largest importer of specimens of *Uromastyx*, importing approximately 69% of all specimens reported in trade. The 15 EU Member States formed the second largest importing pole, with total imports of *Uromastyx* accounting for 19% of the world trade. US imports increased significantly since 1996 and have almost doubled from 2000 to 2001. In contrast, imports into the EU have fallen in the late 90s and have, since then, ranged between 2000 and 3400 specimens per year. Within the EU, Belgium and France are the largest importers (36% and 27% of EU imports respectively) followed by Germany (18%).

- Imports of *Uromastyx* specimens from Egypt, the largest exporter until the early 1990s, continued to be reported despite the national export ban imposed in late 1991. Exports decreased five years only after the ban was imposed.

- In 2001, Mali was the largest exporter of *Uromastyx*, reported exports of *U. dispar*, *U. acanthinura* and *U. geyri*. Mali has established an annual export quota of 32,000 *U. geyri* for 2003, although since 1977 the country's maximum annual export level was 3000 specimens of *U. geyri* in 2001 and the estimated population in Mali is not more than 7500 specimens. No export quota has been established for *U. dispar*, the species most exported and in increasing numbers (>26,000 specimens in 2001) from Mali.

- Ethiopia has established an annual export quota of 3600 specimens of *U. ocellata* since 2000. However, as Ethiopia only exported 46 specimens of *U. ocellata* in 2001 the basis for this quota seems questionable. The SRG has formulated a negative opinion on imports of *U. ocellata* from Ethiopia in March 2001.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

- The recommendations made by the Animals Committee (AC15) in 1999 based on results of the Significant Trade Review of *U. aegyptia* should be pursued with Egypt and other countries and, following the sharp increase of trade in several other species of *Uromastyx* in the late 90s and early 2000s, the entire genus should be considered for Review of the Significant Trade in specimens of Appendix-II species (Resolution Conf. 12.8).

- Levels of trade need to be monitored following trade restrictions, such as SRG negative opinions or import suspensions, to ensure that the measures are being successfully implemented and to detect any potential shifts in trade routes or species.

- A rapid assessment of the significance of CITES unreported trade in *Uromastyx* specimens used in traditional medicines, such as in Malaysia, should be undertaken to understand market trends, and ensure that this trade appears in the CITES database in order to monitor the pressure it represents on Dabb lizard populations in the wild.

- The export quota established by Mali for 32,000 live specimens of *U. geyri* needs to be reduced to sustainable levels (e.g. 750) based on available population estimates, which is currently about 7500 specimens.

- Population estimates are needed for both *U. dispar* and *U. geyri* in Mali, in order to determine whether trade in these two species, which considerably increased since the mid 90s, is sustainable.

- There is a need for population studies and basic monitoring for *Uromastyx* species, especially for the species exported in high quantities such as *U. dispar* and *U. geyri* from Mali.

- Ethiopia should revise its export quota for *U. ocellata*.

- Information on the occurrence and status of *Uromastyx* species in its range States is needed.

- CITES Management Authorities of EU Member States should be particularly vigilant in refusing to issue import permits for countries, such as Benin, that are not range States, but re-export *Uromastyx* specimens of unclear origin.

- A CITES standard reference checklist for the genus is needed to avoid confusion around the occurrence of certain species in a particular country and the use of names for certain species. Further work should therefore be done to select and decide upon the most appropriate CITES taxonomic reference for *Uromastyx* species. The SRG should support the activities undertaken by the CITES Nomenclature Committee in this regard. (This decision will help to prevent potential abuse using the lack of formal decision about *U. dispar* and *U. maliensis*, a species which is not recorded in UNEP-WCMC database or JNCC Checklist, but for which exporting Parties still issue permits and that importing Parties include in their annual report. Such practices are detrimental to the species traded under this name, without adequate scientific basis.)

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Table A. CITES (re-)exporting Parties per species of *Uromastyx*, from 1977 to 2001, in number of specimens.
Source: UNEP-WCMC Species Database

TAXON	Exporters & Re-exporters	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx acanthinurus	Mali	0	1,000	9,485	7,914	1,692	300	0	1,075	**21,466**
Uromastyx acanthinurus	United Kingdom	0	426	0	425	470	0	410	310	**2,041**
Uromastyx acanthinurus	Egypt	202	1,242	0	0	0	0	0	0	**1,444**
Uromastyx acanthinurus	Morocco	1,034	179	0	0	0	5	103	2	**1,323**
Uromastyx acanthinurus	Russia	0	0	60	265	0	0	600	0	**925**
Uromastyx acanthinurus	Germany	62	487	0	0	0	0	0	0	**549**
Uromastyx acanthinurus	Sudan	0	0	150	0	200	69	0	50	**469**
Uromastyx acanthinurus	Benin	0	0	0	0	0	0	0	400	**400**
Uromastyx acanthinurus	Niger	0	0	0	0	0	0	0	308	**308**
Uromastyx acanthinurus	Hungary	0	171	0	0	0	0	0	0	**171**
Uromastyx acanthinurus	Spain	25	0	0	130	0	0	0	0	**155**
Uromastyx acanthinurus	Austria	69	21	0	0	0	3	0	0	**93**
Uromastyx acanthinurus	Algeria	0	0	0	1	5	41	4	22	**73**
Uromastyx acanthinurus	Canada	0	0	0	0	0	0	70	0	**70**
Uromastyx acanthinurus	Belgium	0	0	0	50	0	0	0	0	**50**
Uromastyx acanthinurus	Czechoslovakia	3	40	0	0	0	0	0	0	**43**
Uromastyx acanthinurus	Ghana	0	0	0	30	0	0	0	0	**30**
Uromastyx acanthinurus	Czech Republic	0	28	0	0	0	0	0	0	**28**
Uromastyx acanthinurus	Netherlands	6	0	0	18	4	0	0	0	**28**
Uromastyx acanthinurus	Libya	0	0	0	0	11	7	0	2	**20**
Uromastyx acanthinurus	Soviet Union	0	20	0	0	0	0	0	0	**20**
Uromastyx acanthinurus	Lebanon	0	0	17	0	0	0	0	0	**17**
Uromastyx acanthinurus	Mauritania	0	0	0	0	0	0	11	3	**14**
Uromastyx acanthinurus	Denmark	2	5	0	0	0	0	0	0	**7**
Uromastyx acanthinurus	Mexico	0	7	0	0	0	0	0	0	**7**
Uromastyx acanthinurus	Western Sahara	0	0	0	0	0	6	0	0	**6**
Uromastyx acanthinurus	Sweden	0	0	0	0	0	0	0	3	**3**
Uromastyx acanthinurus	Tunisia	3	0							**3**
Uromastyx acanthinurus	Unknown	0	0	1	0	0	0	0	1	**2**
Uromastyx acanthinurus	Chad	0	0	0	0	1	0	0	0	**1**
Uromastyx aegyptius	Egypt	1,070	15,700	1,090	0	379	300	0	0	**18,539**
Uromastyx aegyptius	UAE	0	0	0	1,300	2,050	715	905	608	**5,578**
Uromastyx aegyptius	Israel	59	623	0	0	0	0	0	0	**682**
Uromastyx aegyptius	Ukraine	0	63	0	0	200	0	0	0	**263**
Uromastyx aegyptius	Lebanon	0	20	0	105	30	62	0	0	**217**
Uromastyx aegyptius	Saudi Arabia	63	120	0	0	20	0	0	6	**209**
Uromastyx aegyptius	Tanzania	0	108	0	0	0	0	0	0	**108**
Uromastyx aegyptius	Burundi	0	25	0	0	0	0	0	0	**25**
Uromastyx aegyptius	Switzerland	0	15	1	0	0	0	0	0	**15**
Uromastyx aegyptius	Ghana	0	0	0	0	0	10	0	0	**10**
Uromastyx aegyptius	Jordan	6	0	0	0	0	0	0	0	**6**
Uromastyx aegyptius	Czechoslovakia	0	3	0	0	0	0	0	0	**3**
Uromastyx aegyptius	United Kingdom	0	7	0	0	0	0	0	0	**3**
Uromastyx aegyptius	Hungary	0	1	2	0	0	0	0	0	**3**
Uromastyx aegyptius	Denmark	0	0	0	2	0	0	0	0	**2**
Uromastyx aegyptius	Bulgaria	0	0	0	0	1	0	0	0	**1**
Uromastyx aegyptius	Bahrain	0	1	0	0	0	0	0	0	**1**
Uromastyx aegyptius	Iran	0	0	0	0	1	0	0	0	**1**
Uromastyx aegyptius	Syria	0	0	0	0	0	0	1	0	**1**
Uromastyx aegyptius	Sudan	0	0	0	0	0	0	0	0	**0**
Uromastyx benti	Yemen	14	1,466	1,686	566	0	1,500	500	1,700	**7,425**

TAXON	Exporters & Re-exporters	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx benti	Germany	0	0	0	0	0	0	31	0	**31**
Uromastyx benti	Oman	0	0	0	0	8	0	0	0	**8**
Uromastyx dispar	Mali	0	0	2,433	967	18,012	13,578	15,303	26,755	**77,048**
Uromastyx dispar	Benin	0	0	0	0	0	0	0	990	**990**
Uromastyx dispar	Ghana	0	0	0	550	245	0	0	15	**810**
Uromastyx dispar	USA	0	0	145	0	0	0	0	0	**145**
Uromastyx dispar	Zambia	0	0	0	100	0	0	0	0	**100**
Uromastyx dispar	Russia	0	0	0	98	0	0	0	0	**98**
Uromastyx dispar	Ukraine	0	0	0	32	0	0	0	0	**32**
Uromastyx geyri	Mali	0	0	2,400	1,566	0	0	200	3,000	**7,166**
Uromastyx geyri	Benin	0	0	0	0	0	0	0	1,484	**1,484**
Uromastyx geyri	USA	0	0	0	0	64	0	0	0	**64**
Uromastyx geyri	Togo	0	0	0	0	50	0	0	0	**50**
Uromastyx geyri	Zambia	0	0	0	20	0	0	0	0	**20**
Uromastyx hardwickii	Pakistan	1,707	32	0	0	0	0	0	0	**1,739**
Uromastyx hardwickii	Ukraine	0	0	0	0	0	0	550	220	**770**
Uromastyx hardwickii	Russia	0	0	5	0	0	0	410	0	**415**
Uromastyx hardwickii	UAE	0	400	0	0	0	0	0	0	**400**
Uromastyx hardwickii	Slovenia	0	0	0	0	0	0	0	350	**350**
Uromastyx hardwickii	Japan	0	0	0	0	0	0	0	10	**10**
Uromastyx hardwickii	Czech Republic	0	8	0	0	0	0	0	0	**8**
Uromastyx hardwickii	Netherlands	6	0	0	0	0	0	0	0	**6**
Uromastyx hardwickii	Morocco	5	0	0	0	0	0	0	0	**5**
Uromastyx hardwickii	Germany	2	0	0	0	0	0	0	0	**2**
Uromastyx hardwickii	India	1	0	0	0	0	0	0	0	**1**
Uromastyx hardwickii	USA	0	1	0	0	0	0	0	0	**1**
Uromastyx macfadyeni	USA	0	0	0	7	18	0	0	0	**25**
Uromastyx macfadyeni	Ethiopia	0	0	0	0	0	0	0	21	**21**
Uromastyx macfadyeni	United Kingdom	1	0	0	0	0	0	0	0	**1**
Uromastyx ocellatus	Egypt	525	12,532	165	0	0	50	0	0	**13,272**
Uromastyx ocellatus	Sudan	0	831	718	0	1,291	1,969	2,075	1,102	**7,986**
Uromastyx ocellatus	Russia	0	410	0	30	0	210	1,040	0	**1,690**
Uromastyx ocellatus	Yemen	0	0	0	491	0	397	0	0	**888**
Uromastyx ocellatus	Canada	0	0	0	0	0	0	450	0	**450**
Uromastyx ocellatus	Lebanon	0	20	39	0	119	0	0	0	**178**
Uromastyx ocellatus	USA	0	0	0	0	59	0	0	0	**59**
Uromastyx ocellatus	Ethiopia	0	0	0	0	0	0	0	46	**46**
Uromastyx ocellatus	South Africa	0	0	0	0	0	0	0	46	**46**
Uromastyx ocellatus	Israel	30	0	0	0	0	0	0	0	**30**
Uromastyx ocellatus	Denmark	0	0	6	4	0	0	0	0	**10**
Uromastyx ocellatus	Czech Republic	0	7	0	0	0	0	0	0	**7**
Uromastyx ocellatus	Spain	0	0	0	0	0	1	0	0	**1**
Uromastyx ocellatus	Saudi Arabia	0	1	0	0	0	0	0	0	**1**
Uromastyx thomasi	Oman	3	0	0	0	16	0	0	0	**19**
Uromastyx thomasi	United Kingdom	1	1	0	0	0	0	0	0	**2**
Uromastyx spp.	Mali	0	0	50	5,034	4,323	4,853	3,250	6,407	**23,917**
Uromastyx spp.	Egypt	1,167	4,430	198	0	294	0	0	0	**6,089**
Uromastyx spp.	Spain	3,246	1	0	0	0	0	0	0	**3,247**
Uromastyx spp.	Ghana	0	0	0	120	440	24	78	0	**662**
Uromastyx spp.	Yemen	0	0	0	601	0	0	0	0	**601**
Uromastyx spp.	Benin	0	0	0	0	0	0	600	0	**600**
Uromastyx spp.	Sudan	0	402	0	0	0	0	0	0	**402**
Uromastyx spp.	France	257	0	0	0	0	0	0	0	**257**
Uromastyx spp.	Taiwan	0	0	0	0	0	200	0	0	**200**

TAXON	Exporters & Re-exporters	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx spp.	Morocco	1	8	103	2	1	5	2	16	**138**
Uromastyx spp.	Pakistan	106	0	0	0	0	0	0	0	**106**
Uromastyx spp.	Switzerland	1	0	0	1	33	0	0	17	**52**
Uromastyx spp.	Israel	33	0	0	0	0	0	0	0	**33**
Uromastyx spp.	Germany	32	0	0	0	0	0	0	0	**32**
Uromastyx spp.	Madagascar	0	0	0	32	0	0	0	0	**32**
Uromastyx spp.	Ukraine	0	0	0	0	0	0	30	0	**30**
Uromastyx spp.	Unknown	17	3	0	0	0	0	0	0	**20**
Uromastyx spp.	Algeria	0	7	7	5	0	0	0	0	**19**
Uromastyx spp.	Japan	0	0	0	0	0	0	0	18	**18**
Uromastyx spp.	Denmark	13	0	0	0	0	0	0	0	**13**
Uromastyx spp.	Czech Republic	0	9	0	0	0	0	0	0	**9**
Uromastyx spp.	Djibouti	1	0	0	0	0	0	0	0	**1**
Uromastyx spp.	United Kingdom	0	0	0	0	0	0	0	1	**1**
Uromastyx spp.	Indonesia	0	0	0	0	1	0	0	0	**1**
Uromastyx spp.	Libya	0	1	0	0	0	0	0	0	**1**
Total		**9,774**	**40,882**	**18,761**	**20,466**	**30,038**	**24,305**	**26,623**	**44,988**	**215,838**

Table B. CITES importing parties, per species of *Uromastyx*, from 1977 to 2001, in number of specimens.
Source: UNEP-WCMC Species Database

TAXON	Importer	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx acanthinurus	USA	187	1,704	3,075	6,431	1,069	283	266	1,612	14,627
Uromastyx acanthinurus	France	0	1,004	2,533	962	607	0	0	0	5,106
Uromastyx acanthinurus	Japan	5	566	145	485	126	7	815	66	2,215
Uromastyx acanthinurus	Belgium	0	0	1,600	0	265	0	0	0	1,865
Uromastyx acanthinurus	United Kingdom	1,002	0	565	0	0	0	0	0	1,567
Uromastyx acanthinurus	Germany	77	142	420	105	76	3	10	365	1,198
Uromastyx acanthinurus	Spain	9	69	303	1	55	116	5	28	586
Uromastyx acanthinurus	Ghana	0	0	20	500	50	0	0	0	570
Uromastyx acanthinurus	Ukraine	0	0	402	0	0	0	0	0	402
Uromastyx acanthinurus	Italy	10	0	260	0	90	0	0	0	360
Uromastyx acanthinurus	Canada	2	0	63	217	0	0	0	0	282
Uromastyx acanthinurus	Switzerland	101	32	83	0	30	0	0	0	246
Uromastyx acanthinurus	Sweden	4	0	0	0	0	0	100	0	104
Uromastyx acanthinurus	Taiwan	0	0	0	0	0	3	0	100	103
Uromastyx acanthinurus	Guinea	0	0	100	0	0	0	0	0	100
Uromastyx acanthinurus	Morocco	0	0	0	100	0	0	0	0	100
Uromastyx acanthinurus	Poland	0	0	100	0	0	0	0	0	100
Uromastyx acanthinurus	Netherlands	0	46	25	0	0	0	0	0	71
Uromastyx acanthinurus	Thailand	0	30	0	0	0	0	0	0	30
Uromastyx acanthinurus	South Africa	2	4	0	18	4	0	0	0	28
Uromastyx acanthinurus	Malta	0	0	0	2	11	7	0	2	22
Uromastyx acanthinurus	Israel	0	9	0	0	0	5	2	0	16
Uromastyx acanthinurus	Denmark	5	4	0	5	0	0	0	0	14
Uromastyx acanthinurus	Argentina	0	0	10	0	0	0	0	0	10
Uromastyx acanthinurus	Unknown	0	10	0	0	0	0	0	0	10
Uromastyx acanthinurus	Finland	0	0	0	7	0	0	0	0	7
Uromastyx acanthinurus	Austria	0	6	0	0	0	0	0	0	6
Uromastyx acanthinurus	Czech Republic	0	0	0	0	0	5	0	0	5
Uromastyx acanthinurus	Indonesia	0	0	4	0	0	0	0	0	4
Uromastyx acanthinurus	Uruguay	0	0	0	0	0	0	0	3	3
Uromastyx acanthinurus	Chile	0	0	0	0	0	2	0	0	2
Uromastyx acanthinurus	Soviet Union	2	0	0	0	0	0	0	0	2
Uromastyx aegyptius	USA	306	13,005	779	352	1,899	865	634	135	17,975
Uromastyx aegyptius	Belgium	0	532	0	950	750	100	250	350	2,932
Uromastyx aegyptius	Japan	14	1,842	306	100	0	0	10	23	2,295
Uromastyx aegyptius	Germany	368	231	0	0	30	62	1	6	698
Uromastyx aegyptius	United Kingdom	252	274	1	0	1	0	0	100	628
Uromastyx aegyptius	Switzerland	92	115	0	5	0	0	0	0	212
Uromastyx aegyptius	France	71	140	0	0	0	0	0	0	211
Uromastyx aegyptius	Spain	0	166	0	0	0	0	0	0	166
Uromastyx aegyptius	Czech Republic	0	156	0	0	0	0	0	0	156
Uromastyx aegyptius	Netherlands	18	50	0	0	0	50	0	0	118
Uromastyx aegyptius	Denmark	20	48	0	0	0	0	0	0	68
Uromastyx aegyptius	Unknown	0	53	0	0	0	0	0	0	53
Uromastyx aegyptius	Canada	7	20	5	0	1	0	0	0	33
Uromastyx aegyptius	Austria	9	20	2	0	0	0	0	0	31
Uromastyx aegyptius	Italy	30	0	0	0	0	0	0	0	30
Uromastyx aegyptius	Indonesia	0	20	0	0	0	0	0	0	20
Uromastyx aegyptius	Hong Kong	0	2	0	0	0	0	11	0	13
Uromastyx aegyptius	Philippines	0	0	0	0	0	10	0	0	10
Uromastyx aegyptius	Taiwan	0	10	0	0	0	0	0	0	10
Uromastyx aegyptius	Sweden	9	0	0	0	0	0	0	0	9

TAXON	Importer	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx aegyptius	Malta	0	4	0	0	0	0	0	0	4
Uromastyx aegyptius	Oman	0	3	0	0	0	0	0	0	3
Uromastyx aegyptius	Soviet Union	2	0	0	0	0	0	0	0	2
Uromastyx benti	USA	0	939	1,691	66	0	1,496	370	1,262	5,824
Uromastyx benti	Belgium	0	0	0	500	0	0	0	0	500
Uromastyx benti	Germany	0	272	0	0	8	0	0	168	448
Uromastyx benti	Japan	0	161	0	0	0	0	30	165	356
Uromastyx benti	Canada	0	2	0	0	0	0	100	41	143
Uromastyx benti	Switzerland	14	74	0	0	0	4	31	4	127
Uromastyx benti	Hong Kong	0	0	0	0	0	0	0	40	40
Uromastyx benti	El Salvador	0	0	0	0	0	0	0	14	14
Uromastyx benti	Italy	0	10	0	0	0	0	0	0	10
Uromastyx benti	France	0	0	0	0	0	0	0	6	6
Uromastyx benti	Spain	0	4	0	0	0	0	0	0	4
Uromastyx benti	United Kingdom	0	4	0	0	0	0	0	0	4
Uromastyx dispar	USA	0	0	0	362	10,849	12,555	11,270	23,810	58,846
Uromastyx dispar	Belgium	0	0	0	0	6,500	0	0	0	6,500
Uromastyx dispar	France	0	0	2,383	862	360	0	200	0	3,805
Uromastyx dispar	Benin	0	0	0	0	0	0	2,220	0	2,220
Uromastyx dispar	Canada	0	0	0	0	110	200	206	1,448	1,964
Uromastyx dispar	Japan	0	0	145	365	225	260	347	288	1,630
Uromastyx dispar	El Salvador	0	0	0	0	0	0	0	1,544	1,544
Uromastyx dispar	Switzerland	0	0	50	76	158	169	78	134	665
Uromastyx dispar	Ghana	0	0	0	0	0	132	520	0	652
Uromastyx dispar	Slovenia	0	0	0	0	0	0	0	300	300
Uromastyx dispar	Italy	0	0	0	25	0	100	100	0	225
Uromastyx dispar	Czech Republic	0	0	0	0	0	0	200	0	200
Uromastyx dispar	Hong Kong	0	0	0	0	0	0	75	110	185
Uromastyx dispar	Poland	0	0	0	0	0	150	0	25	175
Uromastyx dispar	Argentina	0	0	0	35	0	0	2	40	77
Uromastyx dispar	Mexico	0	0	0	10	0	0	25	25	60
Uromastyx dispar	Ukraine	0	0	0	0	55	0	0	0	55
Uromastyx dispar	Hungary	0	0	0	0	0	0	50	0	50
Uromastyx dispar	Netherlands	0	0	0	0	0	0	0	25	25
Uromastyx dispar	Denmark	0	0	0	12	0	0	0	0	12
Uromastyx dispar	South Korea	0	0	0	0	0	0	0	10	10
Uromastyx dispar	Malaysia	0	0	0	0	0	0	10	0	10
Uromastyx dispar	Philippines	0	0	0	0	0	10	0	0	10
Uromastyx dispar	Finland	0	0	0	0	0	2	0	0	2
Uromastyx dispar	Ireland	0	0	0	0	0	0	0	1	1
Uromastyx geyri	USA	0	0	1,200	203	0	0	0	3,114	4,517
Uromastyx geyri	Belgium	0	0	1,200	750	0	0	0	0	1,950
Uromastyx geyri	France	0	0	0	51	0	0	200	550	801
Uromastyx geyri	Germany	0	0	0	0	0	0	0	584	584
Uromastyx geyri	Japan	0	0	0	286	58	0	0	12	356
Uromastyx geyri	Ukraine	0	0	0	160	0	0	0	0	160
Uromastyx geyri	Canada	0	0	0	13	36	0	0	100	149
Uromastyx geyri	Netherlands	0	0	0	6	0	0	0	100	106
Uromastyx geyri	Spain	0	0	0	105	0	0	0	0	105
Uromastyx geyri	Switzerland	0	0	0	0	20	0	0	24	44
Uromastyx geyri	Denmark	0	0	0	12	0	0	0	0	12
Uromastyx geyri	United Kingdom	0	0	0	0	0	0	0	0	0
Uromastyx hardwickii	USA	0	100	5	0	0	0	810	209	1,124
Uromastyx hardwickii	Germany	914	0	0	0	0	0	0	0	914

TAXON	Importer	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx hardwickii	USA	816	0	0	0	0	0	0	0	816
Uromastyx hardwickii	Japan	0	300	0	0	0	0	40	0	340
Uromastyx hardwickii	Canada	0	0	0	0	0	0	0	181	181
Uromastyx hardwickii	Germany	0	0	0	0	0	0	0	120	120
Uromastyx hardwickii	Switzerland	2	1	0	0	0	0	60	0	63
Uromastyx hardwickii	Thailand	0	0	0	0	0	0	50	0	50
Uromastyx hardwickii	Spain	0	0	0	0	0	0	0	35	35
Uromastyx hardwickii	United Kingdom	0	32	0	0	0	0	0	0	32
Uromastyx hardwickii	Sweden	0	0	0	0	0	0	0	25	25
Uromastyx hardwickii	Switzerland	10	0	0	0	0	0	0	0	10
Uromastyx hardwickii	Hong Kong	0	0	0	0	0	0	0	10	10
Uromastyx hardwickii	Denmark	0	8	0	0	0	0	0	0	8
Uromastyx hardwickii	Netherlands	5	0	0	0	0	0	0	0	5
Uromastyx macfadyeni	USA	0	0	0	0	0	0	0	21	21
Uromastyx macfadyeni	Hong Kong	0	0	0	0	18	0	0	0	18
Uromastyx macfadyeni	Mexico	0	0	0	5	0	0	0	0	5
Uromastyx macfadyeni	Israel	0	0	0	2	0	0	0	0	2
Uromastyx macfadyeni	Oman	1	0	0	0	0	0	0	0	1
Uromastyx ocellatus	USA	113	8,756	572	345	0	683	1,440	292	12,201
Uromastyx ocellatus	Germany	305	461	0	0	615	593	750	650	3,374
Uromastyx ocellatus	Japan	22	2,107	0	180	59	145	0	0	2,513
Uromastyx ocellatus	Netherlands	0	100	0	0	200	550	725	150	1,725
Uromastyx ocellatus	Spain	0	106	0	0	475	292	350	0	1,223
Uromastyx ocellatus	France	0	100	300	0	0	50	300	100	850
Uromastyx ocellatus	Indonesia	0	800	0	0	0	0	0	0	800
Uromastyx ocellatus	Belgium	0	750	0	0	0	0	0	0	750
Uromastyx ocellatus	Canada	0	65	0	0	120	195	0	0	380
Uromastyx ocellatus	Czech Republic	0	230	0	0	0	0	0	0	230
Uromastyx ocellatus	United Kingdom	50	25	12	0	0	100	0	0	187
Uromastyx ocellatus	Switzerland	5	103	44	0	0	18	0	2	172
Uromastyx ocellatus	Denmark	56	97	0	0	0	0	0	0	153
Uromastyx ocellatus	Unknown	0	66	0	0	0	0	0	0	66
Uromastyx ocellatus	Italy	0	24	0	0	0	0	0	0	24
Uromastyx ocellatus	Austria	4	0							4
Uromastyx ocellatus	Israel	0	4	0	0	0	0	0	0	4
Uromastyx ocellatus	Sweden	0	0	0	0	0	1	0	0	1
Uromastyx ocellatus	Jordan	0	0	0	0	0	0	0	0	0
Uromastyx spp.	USA	4,456	4,475	111	5,638	4,622	4,277	3,675	6,426	33,680
Uromastyx spp.	Japan	4	76	137	75	196	611	0	0	1,099
Uromastyx spp.	Switzerland	2	31	0	68	0	47	156	0	304
Uromastyx spp.	Monaco	257	0	0	0	0	0	0	0	257
Uromastyx spp.	France	0	251	0	0	0	0	0	0	251
Uromastyx spp.	Belgium	0	0	0	0	250	0	0	0	250
Uromastyx spp.	Germany	100	0	0	1	0	0	0	16	117
Uromastyx spp.	Hong Kong	0	0	0	0	0	40	75	0	115
Uromastyx spp.	Canada	10	4	0	0	22	66	12	0	114
Uromastyx spp.	Czech Republic	0	0	100	0	0	0	0	0	100
Uromastyx spp.	Spain	0	13	10	7	1	5	2	16	54
Uromastyx spp.	Mexico	0	0	0	4	0	6	32	0	42
Uromastyx spp.	Hungary	0	0	0	0	0	25	0	0	25
Uromastyx spp.	Denmark	6	9	0	0	0	0	0	0	15
Uromastyx spp.	New Zealand	6	3	0	0	0	0	0	0	9
Uromastyx spp.	South Korea	0	0	0	0	1	0	6	0	7
Uromastyx spp.	Sweden	6	0	0	0	0	0	0	0	6
Uromastyx spp.	Panama	0	0	0	0	0	3	0	0	3

TAXON	Importer	1977-1989	1990-1995	1996	1997	1998	1999	2000	2001	Total
Uromastyx spp.	Greece	0	0	0	0	0	0	2	0	2
Uromastyx spp.	Indonesia	0	0	0	2	0	0	0	0	2
Uromastyx spp.	Israel	0	0	0	0	0	2	0	0	2
Uromastyx spp.	United Kingdom	0	0	0	0	0	0	0	1	1
Uromastyx spp.	Malta	0	1	0	0	0	0	0	0	1
Uromastyx spp.	Netherlands	1	0	0	0	0	0	0	0	1
Uromastyx spp.	Norway	1	0	0	0	0	0	0	0	1
Uromastyx thomasi	Germany	0	0	0	0	16	0	0	0	16
Uromastyx thomasi	United Kingdom	3	0	0	0	0	0	0	0	3
Uromastyx thomasi	Oman	1	1	0	0	0	0	0	0	2
TOTAL		**9,774**	**40,882**	**18,761**	**20,466**	**30,038**	**24,305**	**26,623**	**44,988**	**215,838**