





### STOLEN WILDLIFE II



WHY THE EU STILL NEEDS TO TACKLE SMUGGLING OF NATIONALLY PROTECTED SPECIES



	SUMMARY	6
B	CASE STUDIES	7
	MEXICO (UPDATE)	8
	COSTA RICA	10
	BRAZIL	12
	TURKEY	14
	IRAN	16
	OMAN	18
	PHILIPPINES	20
	PAKISTAN	22
	INDIA AUSTRALIA (UPDATE)	24 26
	RECOGNITION FOR THE NEED OF AN EU LACEY ACT	28
	CONCLUSIONS & RECOMMENDATIONS	30
, E	REFERENCES	32

### LIST OF FIGURES, PHOTOS, AND TABLES

### FIGURES

1: Examples for high market prices and illegally taken animals	7
2: Protected species from Mexico in international commercial hobbyist trade	9
3: Protected species from Costa Rica in international commercial hobbyist trade	11
4: Protected species from Brazil in international commercial hobbyist trade	12
5: Protected species from Turkey in international commercial hobbyist trade	15
6: Protected species from Iran in international commercial hobbyist trade	17
7: Protected species from Oman in international commercial hobbyist trade	19
8: Protected species from the Philippines in international commercial hobbyist trade	21
9: Protected species from Pakistan in international commercial hobbyist trade	23
10: Protected species from India in international commercial hobbyist trade	25
11: Protected species from Australia in international commercial hobbyist trade	27

### PHOTOS

1: Smuggling case Costa Rica, Headline of <i>The Tico Times</i> , Sep 20, 2014	10
2: Neurergus microspilatus, endemic to Iran	16
3: Hydrosaurus pustulatus, endemic to the Philippines	20
4: Eublepharis macularius, native to Pakistan, India, Afghanistan, and Iran	22
5: Calotes rouxii, endemic to western India	24
6: Smuggling case Australia, headline of <i>The West Australian</i> , Sep 17, 2015	26
7: Phrynosoma solare, endemic to Mexico © Br Davids	31

### TABLES

1: Increasing awareness and support for the need of an EU Lacey Act

# SUMMARY

Reptiles are an easy target for smugglers: They are silent goods in suitcases and parcels, they often survive over long periods of confinement, and rare species may fetch thousands of Euros. Although amphibians have higher mortality rates during transport, their smuggling from distinct biodiversity hotspots may also be very lucrative (AULIYA *et al.* 2016a).

Traffickers often specifically target species, which are not covered by the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES), as their importation in European countries is poorly regulated. However, many of these targeted species are endangered in the wild and afforded high levels of national protection in their countries of origin.

The European pet market is a main destination for illegally caught reptiles (e.g. AULIYA et al. 2016b, NESLEN 2015; NIJMAN & SHEPHERD 2009), both CITES listed and non-CITES. In November 2014, Pro Wildlife published its report "Stolen Wildlife", focusing on the trafficking in rare and threatened species, which are protected in their country of origin, but not on an international level. Once those species are smuggled out of their range state, they can be openly and legally sold in the European and other global markets – which mean high profits with low risk of prosecution (ALTHERR 2014).

In response to the "Stolen Wildlife" report, the European Union, after consultation with range states, finally agreed to co-sponsor a variety of CITES proposals for reptiles (CoP17 Prop. 26, 29, 30, and 31). While CITES listing proposals for species threatened by international trade are of course a prime obligation this approach is a Band-Aid approach to halt the haemorrhaging of unsustainable trade in threatened species. This approach falls well behind the efforts of the United States to combat trafficking in all animal and plants species – whether listed on CITES or not – through their Lacey Act authorities (EFFACE 2016; UNODC 2016). However, the EU approach of including more species in CITES Appendices II and III does not make an EU Lacey Act superfluous: Chapter 2 of this report presents case studies from ten countries, which illustrate the involvement of European citizens as smugglers and commercial vendors, as well as the central role of European reptile trade fairs as international meeting points and hubs for a shadowy trade in illegally obtained animals. These case studies clearly show that:

- The EU remains a major destination for threatened species, which are collected in violation of national law in their range state
- 2. The EU is a major commercial marketplace, with freely available illegal animals for sale and
- EU citizens, who are key smugglers and traders for such species, remain at large and are actively engaged in trafficking these animals into European countries.

Accordingly, the request for an "EU Lacey Act", which would enable European authorities to prosecute illegal captures of nationally protected species from third countries and treat this as a criminal act in the European Union – corresponding with the well proven US law – is supported by an increasing number of institutions (such as the EU-Parliament), scientists and the UN Office on Drugs and Crime, as documented in Chapter 3. The EU needs to criminalize actions by citizens of its member states when they violate the wildlife protection laws of foreign countries and import and trade in illegally taken and transported animals and plants.

Chapter 4 provides conclusions and recommendations, which are not only useful for the discussions at the 17th Conference of the CITES Parties, but also for to propose guidance for the implementation of the EU Action Plan against Wildlife Trafficking, which has been agreed in February 2016. This report illustrates how European citizens and weak European laws are undermining the effectiveness of developing countries efforts to protect their species, which is not only a conservation risk but can also undermine efforts toward sustainable development. This legal gap is also in contradiction to the commitment of the European Union to the *Rio de Janeiro Convention on Biological Diversity*, including the recognition of sovereign rights of States over their own biological resources.

# **CASE STUDIES**

Rarity sells - this is the simple rule of wildlife traffickers: In our first report on "Stolen Wildlife" we documented the plundering of nationally protected reptile species from Sri Lanka, Indonesia, Japan, Vietnam, Mexico, Guatemala, Kenya, Tanzania, New Zealand, and Australia (ALTHERR 2014). These animals are regularly poached and trafficked from their range states by European citizens in order to feed a growing and destructive commercial trade by so-called "hobbyists". Poachers and smugglers often target gravid females for import into European countries so they can present falsely "captive-bred" offspring to buyers and government officials. Those smugglers or their buyers openly offer adult and juvenile specimens of doubtful origin for sale. Examples of this commercial black market trade are presented in the remainder of this Chapter.

The rainbow galliwasp **(Diploglossus monotropis)**, a lizard of the family Anguidae and highly prized in the commercial hobbyist trade, is native to Colombia, Costa Rica, Ecuador, Nicaragua, and Panama (e.g. DÍAZ-AYALA *et al.* 2015) – most of these countries have strict national legislation, which bans the capture and export of wild specimens without proper permits. Because of these strict laws, in part, very few specimens of this

species have been available to traders in recent years. This limited availability on the international pet market is reflected by the remarkable price of up to 3,000€/ pair in Belgium (see figure 1a). Another unambiguous case is the frilled-neck lizard *(Chlamydosaurus kin-gii)*, which is strictly protected in its three range States (Australia, Indonesia and Papua New Guinea). In Indonesia, in accordance with the law Dilindungi PP No. 7/1999, exports for wild-caught specimens is illegal and comparable or even more strict laws covering captive bred specimens are in place in Australia and Papua New Guinea. Nevertheless, wild-caught specimens, explicitly marked as "Papua location" were recently offered by a German trader (see figure 1b).

This report, following up on the first "Stolen Wildlife", demonstrates that the illegal collection and smuggling of nationally protected species is ongoing and is neither limited to the species, or the countries initially discussed: An update is given for both Mexico and Australia, and new case studies are presented for Brazil, Costa Rica, India, Iran, Oman, Pakistan, Philippines, and Turkey. Stolen Wildlife II also includes information on the trade in illegally collected amphibians.

### FIGURE 1: EXAMPLES FOR HIGH MARKET PRICES AND ILLEGALLY TAKEN ANIMALS

a) Online advert by a Belgian trader at www.terraristik.com: sale of *Diploglossus monotropis*, praised as "the only ones for sale in the world" (Dec 2013)



b) Advert by a German trader at the closed Facebook group "Hamm And Houten Reptile Classifieds" for two pairs of wild-caught *Chlamydosaurus kingii* from Papua/Indonesia



## **MEXICO**

**National legislation:** The "NORMA Oficial Mexicana NOM-059" lists threatened native species, including those "in danger of extinction" (P), "threatened" (A), and "subject to special protection" (Pr) (SEMARNAT-2010). In accordance with Article 420 of the Código Penal (Criminal Code) both capture and any commercial activity with wild species of flora and fauna that are endemic, in danger of extinction, threatened, rare, or subject to special protection is prohibited without proper permit. For native spiny-tailed lizards *(Ctenosaura sp.)* export permits have only been issued for limited numbers of wild-caught *C. pectinata* as well as captive-bred *C. pectinata* and *C. defensor* (SEMARNAT 2015).

**Biodiversity:** Mexico is one of the 17 mega-diverse countries (MITTERMEIER & MITTERMEIER 2004). A minimum of 377 amphibian species are native to Mexico, with two thirds of them endemic (AMPHIBIAWEB 2016). With at least 916 reptile species Mexico is considered to hold the second highest level of reptile diversity globally (after Australia [UETZ *et al.* 2016; BIODIVERSIDAD MEXICANA 2012]). More than half of these species are found nowhere else (LIVING NATIONAL TREASURES 2016; FLORESVILLELA & CANSECO-MÁRQUEZ 2004). Many endemic species are thought to be in a precarious conservation situation, including *Ctenosaura clarki*, *C. oaxacana*, and *Barisia rudicollis* (WILSON *et al.* 2013).

**Illegal trade:** Widespread plundering of Mexico's unique herpetofauna for the international commercial hobbyist trade is well documented (e.g. FITZGERALD *et al.* 2004, GOYENECHEA & INDENBAUM 2015). Mexico was a case study in our first "Stolen Wildlife" report (ALTHERR 2014), although at that time with a focus on various species of threatened arboreal alligator lizards, *Abronia*. This resulted in a proposal by Mexico and the European Union to include all *Abronia* species in CITES Appendix II. However, Mexico remains a hot spot for reptile smuggling to Europe, with Spain being a significant channel. Many other of its endemic and rare species are also targeted, as the following recent examples indicate:

The four-toed worm lizard, *Bipes canaliculatus*, is restricted to the Balsas-Tepalcatepec Basin in the States of Guerrero and Michoacan and is protected by national legislation under the Pr category ("special protection") ( SEMARNAT 2010). Spanish traders offered specimens for 1,500-2,000  $\in$  each at the trade fair in Hamm, Germany (see figure 2 a), and in closed Facebook groups – some specimens are openly labelled as wild-caught.

The poorly known roughneck alligator lizard, **Bari**sia rudicollis, is known to occur only in Morelos, and perhaps adjacent areas of Michoacán (UETZ *et al.* 2016). It is a rare species, classified by IUCN as Endangered (FLORES-VILLELA & SANTOS-BARRERA 2007) and in Mexico it is legally classified as "in danger of extinction" (category "P") (SEMARNAT 2010). Traders from Spain have advertised specimens for sale as "super rare", selling them for at least  $250 \in$  (see figure 2 b).

The spiny-tailed iguana, *Ctenosaura spp.*, is comprised of 18 species, seven of which are endemic to Mexico. Although export permits for commercial purposes were not issued by Mexican authorities, specimens of the Michoacán dwarf spiny tailed iguana (Ctenosaura clarki), the Oaxaca spiny-tailed iguana (Ctenosaura oaxacana), and occasionally the San Esteban spinytailed iguana (C. conspicuosa) have been offered in the international commercial hobbyist trade by citizens, for example, from Czech Republic, Germany, and Spain. Prices for *C. oaxacana* are about 1,800 €/pair (see figure 2 c, d), for *C. clarki* (see figure 2d) about 1,500 €/pair. In many cases the wild-caught origins of the animals is openly noted, with the European sellers obviously unconcerned about any legal consequences. C. oaxacana is classified by IUCN as Critically Endangered, C. clarki as Vulnerable (KÖHLER 2004a, b). In Mexico, both iguanas are classified as threatened (category "A") (SEMAR-NAT 2010).

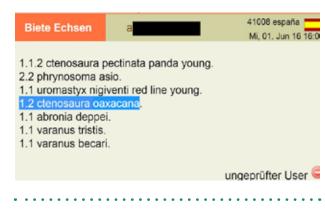
Seven species of horned lizards, *Phrynosoma sp.*, are endemic to Mexico (LIVING NATIONAL TREASURES 2016), including the mountain horned lizard (*Phrynosoma orbiculare*). *P. orbiculare* is classified as threatened (category "A") in Mexico (SEMARNAT 2010. Specimens are on sale in Europe for 250-450 €/pair by citizens from Spain, Austria, and Germany (see figure 2 f). A similar case is that of the giant horned lizard (*Phrynosoma asio*), endemic to Southeast Mexico and protected by Mexican law under the category "Pr" (Special Protection). This species is popular in international commercial hobbyist trade, and prices may reach 450 € for adult specimens. Some traders openly advertise specimens listed as being of wild origin (figure 2 e).

#### FIGURE 2: PROTECTED ENDEMIC SPECIES FROM MEXICO IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Sale of *Bipes canaliculatus* (2,000 € each) by a Spanish trader for a German trade fair, Sept. 2015. The species is labelled as wild-caught ("Wildfang") © Facebook.



c) Online advert by a Spanish trader at www.terraristik. com, June 2016, offering several Mexican endemic and protected species, i.e. *Phrynosoma asio*, *C. oaxacana*, and *Abronia deppii*:



e) Online advert by a German trader at www.terraristik.com, offering several adult pairs of *Phrynosoma asio* "from Mexico" for the reptile trade show in Hamm, Germany, Aug 2016.



b) Online advert by a Spanish trader for adult individuals of Mexican endemic species *Barisia rudicollis*, *Abronia deppii*, and *Abronia graminea* at www.terraristik.com, Feb 2016.

Biete Echsen C	28522 madrid Fr, 05. Feb 16 14:05
For sale.	
1.1 barisia rudicollis 2.1 abronia deppei	
1 1 abronia graminea	

d) Online advert by a Czech trader in the closed Facebook group "Rare Reptiles Classifieds – Europe", June 2015, for *C. clarki* and *C. oaxacana*, both endemic to Mexico; the latter openly offered as a wild-caught specimen.

-	Rare Reptiles Classifieds - EUROPE     Juni 2015 -
Ctenos	aura clarki, 1,1 CB 2013
Ctenos	aura oaxacana, adult breeding 1,1 7 years in captivity
1000000000	ois belliana belliana 1,1 CB 2013 mm 9/15
1 c.c	

f) Online advert by a Spanish trader, June 2016, for adult individuals of the Mexican endemic species *Phrynosoma orbiculare*, *Rhinoclemmys rubida* and *Abronia graminea* at www.terraristik.com.

Biete Echsen	T	41749 Sevilla Do, 02. Jun 16 18:30
2.2 Phrynosoma Asid 2.2 Rhinoclemmys ru 2.4 Phrynosoma orbi 3.7 Abronia Gramine 2.3 Acantinura Nigriv 1.0 Drymarchon cour 1.1 Furcifer Pardalis 0.0.7 Pachymedusa 0.0.3 Charadrahyla c	bida rubida. culare. a entis. peri. diego suarez. dacnicolor.	
		ungeprüfter User 🎰 👄
	PREMIUM Anze	eige

# **COSTA RICA**

**National legislation:** Costa Rica's native species are protected by the Wildlife Conservation Law No.7317 of 1992 ("Ley de Conservación de la Vida Silvestre"), which prohibits any removal of wild animals from their natural habitat. Export of wildlife for scientific purposes requires a government permit, while export for commercial purposes is prohibited.

**Biodiversity:** Costa Rica is considered to be one of the 20 countries with the greatest biodiversity in the world. Costa Rica's geography, its two coasts and mountain ranges, provides numerous and varied microclimates (FAUTH *et al.* 1989; SANTOS-BARRERA *et al.* 2008; INBIO 2016). It is home to more than 260 reptile and 203 amphibian species (147 frogs, 49 salamanders and 7 caecilians) (AMPHIBIAWEB 2016; UETZ *et al.* 2016). Twenty-two reptile and 56 amphibian species are endemic to the country (LIVING NATIONAL TREASURES 2016). In February 2016, the Environmental Minister stated that wildlife issues are a priority to the nation (HSI 2016).

**Illegal trade:** Costa Rica's rich fauna is targeted by foreign smugglers, as documented by a series of law enforcement cases (e.g. ANON 1993; LAUFER 2010). On 9th September 2014, "the largest wildlife trafficking case for 20 years" was uncovered by the authorities at San José Airport: 184 frogs (including many different glass frogs), 42 lizards, nine snakes and 203 tadpoles were found in the luggage of a German citizen (Photo 1) — all had been stuffed into plastic food containers destined for illegal export to Germany (ANON 2014a; FENDT 2014a). A list of the confiscated species is given in figure 3 a).

Only nine days earlier, the same German smuggler had posted online adverts for a variety of glass frogs native to Costa Rica, including e.g. the ghost glass frog (*Sachatamia ilex*), which is the largest glass frog species in Central America (AMPHIBIAWEB 2016 and literature herein). Other Costa Rican amphibians in the smuggler's adverts were the reticulated grass frog (*Hyalinobatrachium valerioi*), yellow-flecked glass frog (*Sachatamia albomaculata*), granular glass frog (*Cochranella granulosa*), fringe-limbed tree frog (*Cochranella euknemos*), spiny glass frog (*Te*- *ratohyla spinosa*), and Chiriqui glass frog (*Teratohy-la pulveratum*) (see figure 3 b). Reptiles for sale were O'Shaughnessy's galliwasp (*Diploglossus bilobatus*), Costa Rican rainbow-striped galliwasp (*Diploglossus monotropis*), highland alligator lizard (*Mesaspis monticola*) and the yellow-spotted tropical night lizard (*Lepidophyma flavimaculatum*) (see figure 3 b, c and d). Market prices for some of the Costa Rican species are given in figure 3 a).

It appears obvious that some or all these confiscated animals were destined for the world's largest reptile trade event, which took place in the German town Hamm on 13th September 2014, only four days after the San Jose airport seizure. The smuggler's business partner is a regular and officially registered vendor at the Terraristika, including the event on 13th September.

German tourist busted at Costa Rica airport smuggling 400 animals is released with no fine

LINDSAY FENDT | SEPTEMBER 20. 2014

ANIMAL TRAFFICKING



 unakes, frogs and tadpoles were among the 900-plus animals that a German man attempted to smug (Courtacy of SIUAC)

Photo 1: Headline of The Tico Times, 20 September 2014.

### FIGURE 3: PROTECTED SPECIES FROM COSTA RICA IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) List of species confiscated from a German smuggler on 8th Sep 2014 in Costa Rica (species in bold had been advertised by him before the seizure; market prices in parentheses).

#### Lizards

- Mesaspis monticola (~350 € each)
- Lepidophyma flavimaculata (~100 € each)
- Anolis biporcatus
- Polychrus gutturosus (~50 € each)

#### Snakes

- Imantodes cenchoa
- Leptodeira annulata
- Corallus annulatus (~750 € each)
- Sibon longifrenis

#### Frogs

- Hyalinobatrachium valerioi (~70 € each)
- Sachatamia ilex
- Anotheca spinosa (150-200 € each)
- Smilisca phaeota
- Agalychnis callidryas (~30-45 € each)

. . . .

c) Online advert (#2) by a German trader at www.teraristik. com for Costa Rican reptiles (marked in blue) – the person was arrested only 9 days later in Costa Rica for smuggling reptiles and amphibians, Aug 2014.



b) Online advert (#1) by a German trader at www.teraristik. com (Aug 2014) for several Costa Rican glass frogs – this person was arrested only 9 days later in Costa Rica for smuggling reptiles and amphibians.



0.0.4 Agalychnis spurelli (Karibik Lokalform!!!) Anotheca spinosa Cochranella granulosa Cochranella euknemos Sachatamia ilex Sachatamia albomaculata Teratohyla spinosa Hyalinobatrachium valerioi Teratohyla pulveratum



d) Online advert (#3) by a German trader at www.teraristik.
com for reptiles native to Costa Rica (*Diploglossus sp.*) (Aug 2014) – the person was arrested only 9 days later in Costa Rica for smuggling reptiles and amphibians.

. . . . . . . . . . . . . . . . .



### BRAZIL

**National legislation:** According to Art. 29 of the Brazilian Environmental Crimes Law (Law 9, 605 as of Feb 12, 1998) "killing, pursuing, hunting, capturing or using specimens of wild animals, whether native or on a migratory route, without proper permission, license or authorization from the authorities" is defined as a crime against fauna.

**Biodiversity:** Brazil is home to at least 807 reptile species (UETZ *et al.* 2016) and is ranked in third place in terms of the world's countries with highest reptile diversity (after Australia and Mexico). At least 349 of species (43%) are endemics, with dozens only described by scientists within the last decade (LIVING NATI-ONAL TREASURES 2016). With at least 1,024 species, 718 (=70%) being endemic, Brazil is the richest country in the world for the number of native amphibians (AM-PHIBIAWEB 2016).

**Illegal trade:** Brazil's unique biodiversity is regularly targeted by smugglers (PISTONI & TOLEDO2010; SCHERER 2015) and a variety of Brazilian species are regularly found in the illegal international commercial hobbyist trade. For example, the Rio de Janeiro's Smooth Horned Frog (*Proceratophrys boiei*) is endemic to eastern Brazil. According to the IUCN Red List the species is apparently subject to illegal trade, both nationally and internationally (BORGES-NAJOSA & SKUK 2010). Adult specimens are occasionally sold in Europe for about 390 € each (see Figure 4 a), e.g. by a German trader, who had been arrested in 2014 in Costa Rica (see page 14-15) for smuggling reptiles and amphibians.

The two-lined fathead anole *(Enyalius bilineatus)* is endemic to Brazilian Provinces Minas Gerais, Espirito Santo, Distrito Federal, Rio de Janeiro, and Bahia (UETZ *et al.* 2016). Only recently it was found in the Caatinga region in northern Bahia (SALES *et al.* 2015). The species is occasionally sold in Europe, e.g. by Germans or Russian nationals (see figure 4 b and c).

The Brazilian galliwasp **(Diploglossus lessonae)** is restricted to North-eastern Brazil (Rio Grande do Norte, Paraiba, Pernambuco, Ceará). Data on population size and structure are scarce. Traders from e.g. Germany, Czech Republic, Russia, and Argentina sell specimens for 350-500 € each (figure 4 d and e).

The Caatinga horned frog *(Ceratophrys joazeirensis)* is only known from two localities in north-eastern Brazil: Joazeiro, in the northern part of the state of Bahia; and Cabaceiras, in the state of Paraiba. According to AMPHIBIAWEB (2016) the species is known scientifically from only a few individuals; nevertheless, a German trader offered specimens for  $89 \in$  (see figure 4 f). The Brazilian horned-frog *(Ceratophrys aurita)* has a broader distribution, but is also not common in its range (DE CARVALHO-E-SILVA *et al.* 2004); the species is occasionally offered in the European commercial hobbyist market, e.g. by traders from Spain and Germany for approximately 200  $\in$  (see figure 4 g und h).

### FIGURE 4: PROTECTED SPECIES FROM BRAZIL IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Advert by a German trader in the closed Facebook group "Hamm and Houten Reptile Classifieds", dated 10th April 2016. Several of these species are protected in their range state, e.g. *Proceratophrys boei* (Brazil), *Phrynosoma asio* (Mexico and Guatemala), *Hypnale hypnale* and *Lyriocephalus scutatus* (Sri Lanka).

- Agamids:
- 1.0 Acanthosaura nataliae adult 350e
- 2.0 Lyriocephalus scutatus subadult-adult 550e each
- Other lizards
- 1.1 Envalus bilineatus subadult CB15 1250e each pair.

0.8 Lepidophyma flavimaculatum "subadult-adult" (parthenogenetic females) = 80e each.

- 0.10 Lepidophyma flavimaculatum CB15 180e each.
- 0.1 Phrynosoma asio adult long time kept female 490e

Snakes:

- 0.1 Hypnale hypnale Sri Lanka "adult " 430€
- 0 1 Tropidolaemus subannulatus Sulawesi "adult" 300€
- 0.1 Tropidolaemus wagleri "subadult" 250€
- Amphibians:

0.0.20 Phyllomedusa burmeisteri (first time in breed!) young unsexed frogs CB11.15 120€ each

2.0 Proceratophrys bole "adult" 390e each.

2.2 Hyla vasta

- Please pm for more details!
- Regards.



### **FIGURE 4 CONTINUED**

b) Facebook post by a Russian trader, posted on 3rd Dec 2015, advert for *Enyalius billineatus*:





d) Online advert by a Czech trader at www.terraristik.com, July 2016, for an adult male of *Diploglossus lessonae*:



f) Online advert by a German trader at www.terraristik.com, Oct 2012:

Biete Sonstiges C

46045 Oberhausen \_\_\_\_\_ Do, 04. Okt 12 16:23

Abzugeben // For sale :

 Hundskopfschlinger /Emerald Tree Boa (Corallus caninus) (Surinam)
 499.-

- Angola Python (Python anchietae) 1.0 DNZ 07 399,-
- Gartenboa (Corallus hortulanus) 59,-
- Blutpython (Python brongersmai) DNZ 2011 120,-

Schmuckhornfrösch:

-Ceratophrys joazeirensis 89,-

- -Ceratophrys cranwelli 40,-
- -Ceratophrys cranwelli (Apricot) 70,-
- -Ceratophrys cranwelli (Hypo) 60,-
- -Ceratophrys cranwelli (Lime green) 70,-
- -Ceratophrys cranwelli (Peppermint) 70,-
- -Ceratophrys ornata (Roter / Red) 60,-

c) Online advert by a German trader at www.enimalia.com for subadult/adult specimens of *Enyalius bilineatus*:



e) Online advert by a German trader in the closed Facebook group "Rare reptiles Classifieds - Europe", March 2015:



2014, CB. (Photos 1 and 2). Photo 3 - adult animal, not for sale. Questions - in a private message, please.



g) Online advert for *Ceratophrys aurita* by a Spanish trader at www.terraristik.com, May 2016 – "Wholesale & Retail":

hat 12 neue Fotos hinzugefügt.

23. Mai · 🥘

HAMM JUNE - ROW 4

WHOLESALE & RETAIL PRICE LIST

Ceratophrys cranwelli

(Brown, Green, Albino, Peppermint, Apricot and Lime Green)

Fantasy frog green (Ceratophrys cranwelli x cornuta) Ceratophrys cornuta (Brown, Orange and Green) Ceratophrys ornata (Brown and Orange)

### Ceratophrys aurita

Ceratophrys stolzmani Lepidobatrachus laevis

### TURKEY

**National legislation:** The Land Hunting Law (No. 4915 of 2003) aims to provide for sustainable hunting and wildlife management and protection. In addition, Aquacultural Resources Law (No. 1380 of 1971) provides extra protection for the amphibians, terrapins and sea turtles. In line with these two laws the collection and export of reptile and amphibian species in Turkey without lawful permission is completely prohibited – for both scientific and commercial purposes (TURKOZAN 2016).

**Biodiversity:** 148 reptile, 16 frog and 21 salamander species are known to occur in Turkey (UETZ *et al.* 2016); with 20 reptile and 11 amphibian species being endemic (LIVING NATIONAL TREASURES 2016). Turkey is the only country covered almost entirely by three of the world's 34 global biodiversity hotspots: the Caucasus, Irano-Anatolian, and the Mediterranean (ŞEKERCIOĞLU 2011). Furthermore, it is well known for its high diversity of viper species (MEBERT *et al.* 2016) and an increasing number of newt species and subspecies (WIELSTRA *et al.* 2015; WIELSTRA & ARNTZEN 2016).

**Illegal trade:** Turkey's biodiversity is heavily targeted by wildlife smugglers. According to the general director of the Environment Preservation and National Parks, Nurettin Taş, within the last five years 99 people have been caught in 52 incidents, in the attempt to smuggle e.g. plants, butterflies, venomous snakes and salamanders. Most of the smugglers originated from Germany, the Netherlands, the United Kingdom, Sweden, Switzerland, Denmark, Belgium, Spain, Austria, Russia, the Czech Republic, Hungary, Romania, and Japan (ANADOLU AGENCY 2016).

In May 2015, one Austrian and two German citizens were caught in Turkey's northeastern province of Ardahan near the Georgian border with 16 smooth newts *(Lissotriton vulgaris)*, a viper (either *Vipera darevskii* or *V. eriwanensis*, both native to Ardahan) and a variety of rare plants. They were fined TRY 116,000, corresponding to EUR 39,000 (ANON 2015). One of the three was registered as on official vendor at the Terraristika trade fair in Hamm, Germany, in June. The Darevsky's viper *(Vipera darevskii)* is classified by IUCN as Critically Endangered (TUNIYEV *et al.* 2009a); the Alburzi viper (*Vipera eriwanensis*) as Vulnerable (TUNIYEV *et al.* 2009b); both are rarities in the European commercial hobbyist trade.

The ocellate mountain viper (Montivipera wagneri) was discovered in 1840, but then remained undetected to scientists for 140 years. However, in 1986, scientists located populations in a valley in Turkey, and their scientific paper kicked off large-scale captures. Most collectors were from Europe, with many of them preferring to take gravid females (NILSON & ANDRÉN 1999). Within a few years wild populations collapsed and in 2009 the species was classified by IUCN as Critically Endangered (KASKA et al. 2009). While there has been some captive-breeding, the founder-stocks were taken illegally and these illegal offtakes are continuing until today (PLATT 2013): Occasionally, specimens are in trade, some with the precise locations as their origin (e.g. Karakurt, Anatolia) (see figure 5 a, b). A similar case is the mountain viper (Montivipera albizona), which was only discovered in 1990 (NILSON et al. 1990), is classified by IUCN as Endangered and for which collection for international pet trade is also indicated as a major threat (TOK et al. 2009). It is listed in Appendix II of the Bern Convention and hence defined a strictly protected species. Nevertheless, it is regularly sold in Europe (see figure 5 b, c), prices are approximately 200 € each, occasionally marked as "captive-bred"; however, the legality of the breeding stock is doubtful.

The Anatolian newt (*Neurergus strauchii*) is currently known only from Vilayets Mus, Bitlis and Malatya in Eastern Anatolia, Turkey (AMPHIBIAWEB 2016) and classified by IUCN as Vulnerable (PAPENFUSS *et al.* 2009). Under the Bern Convention *Neurergus strauchii* is a strictly protected species. It is nevertheless regularly offered in European commercial hobbyist trade and adult specimens are on sale for approximately 200-250  $\pounds$  each (see figure 5 d).

#### FIGURE 5: PROTECTED SPECIES FROM TURKEY IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Online-post for *Montivipera wagneri* in the closed Facebook group "Venomous snakes" by a German citizen, Dec. 2012, providing detailed information on origin.



Montivipera wagneri, Karakurt Anatolia.



c) Online-post in the closed Facebook group "Hamm and Houten Reptile Classifieds" by a German citizen, for *Montivipera albizona*, Sept. 2015.



S Hamm And Houten Reptile Classifieds 30. September 2015 - Ⅲ

#### Für Houten:

- 1,1 Vipera ursinii moldavica CB2015
- 1,1 Vipera renardi (Danube Delta) CB 2015
- 3,2 Vipera latastei latastei CB2015

2,1 Vipera aspis zinnikeri CB2015

- 1,2 Montivipera albizona CB2015 1,1 Vipera transcaucasiana CB2014
- 0,1 Vipera lotievi adult
- 1,2 Vipera latastei gaditana adult
- 1,2 Tipera latastel gaenaria ao

b) Online-post in the closed Facebook group "Hamm And Houten Reptile Classifieds" by a German citizen, July 2015.



d) Advert in the closed Facebook group "Salamanders and Newts for sale" by a Spanish citizen, for seven *Neurergus strauchii*, sold for 200 € each, Feb. 2016.



### IRAN

**National legislation:** In accordance with the *Environmental Protection and Enhancement Act* (1974) and the *Executive By-Law on the Game and Fish Law* (1967) any hunting, killing or catching of all wild mammals, birds and reptiles as well as fishing, killing or catching aquatic animals is prohibited. In addition, any export of live wild animals without a licence or approval from the Department of Environment is also prohibited. While this legislation is valid for all wildlife, level of fines is higher for endangered species and therefore protected by law, such as the Kurdian newt (*Neurergus microspilotus*).

**Biodiversity:** In terms of species richness and taxonomic diversity of reptiles, Iran harbours one of the most remarkable assemblages of reptile species within the western Palearctic region, owing to both high habitat diversity and historical biogeographical factors (RAS-TEGAR-POUYANI *et al.* 2011). Iran harbours 332 reptile species, of which 58 species are endemic (LIVING NATI-ONAL TREASURES 2016; UETZ *et al.* 2016). Fifteen frog and six salamander species are native, with two frog and four salamander species being endemic (AMPHI-BIAWEB 2016; LIVING NATIONAL TREASURES 2016).

**Illegal trade:** Due to illegal mass collections of the nationally protected for the international pet trade and a resulting estimated population decline of more than 80% within ten years the Kaiser's spotted newt *(Neurergus kaiseri)* has been classified by IUCN as Critically Endangered (SHARIFI *et al.* 2009) and shortly afterwards to its inclusion CITES Appendix I in 2010 (IRAN 2010). While trade in that species is now under strict international control, the illegal offtake of other Iranian endemic species is going on. In 2014, Iran's Department of Environment published a report, detailing the state of animal biodiversity in Iran. Illegal wildlife collection and trade was cited as one of the reasons for declining wild populations (THE IRAN PROJECT 2014).

In 2014 and 2015, two commercial traders from the Czech Republic offered adult Iranian leopard geckos (Eublepharis angramainyu) from different provinces in Iran, including Ilam, Kermanshah, and Khuzestan (see figure 6 a, b). The animals were claimed to be captive-bred. Taking into consideration that firstly, these Czech traders are convicted reptile smugglers (see page 26-27); secondly, that reptile smugglers prefer to capture gravid females to later present their offspring as "captive-bred"; and thirdly, that Iranian wildlife must not be exported without permits, makes these offers highly suspicious. A third czech trader openly offered wild specimens (figure 6c). In reply to Pro Wildlife's request for an assessment on the legality of Iranian geckos in those adverts by the European commercial hobbyist trade the Wildlife and Biodiversity Bureau of Iran stated: "Based on the national regulation in Iran, all the specimens sold are illegal and have been collected without permission" (MOBARAKI 2014).

The Kurdistan newt *(Neurergus microspilotus)*, endemic to Iran, is classified by IUCN as Critically Endangered, as it is known from only four severely fragmented streams within the Zagrosian Oak Forest. Although only recently new populations were discovered in the wild, the overall population size is still very low (AFROOS-HEH *et al.* 2016). The species is protected by national law in Iran, but illegal harvest for the commercial hobbyist trade is a major and increasing threat (SHARIFI *et al.* 2016). Specimens are kept by European collectors (see figure 6 d), and relation of search versus offer adverts indicate that the commercial hobbyist demand is much higher than the number of available specimens.



Photo 2: Neurergus microspilotus, endemic to Iran © Babak Naderi

#### FIGURE 6: PROTECTED SPECIES FROM IRAN IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Online advert by a Czech trader for leopard geckos from the Iranian province Ilam (www.terraristik.com), Dec. 2015.



c) Facebook post in the closed FB group "Terraristika Hamm" by a Czech citizen offering Iranian leopard geckos from the Iranian provinces Khuzestan and Kermanshah, Nov. 2015.



hat seinen Beitrag in der Gruppe "Terraristika Hamm - Terraristik Börse" geteilt. 7. November 2015 - 🔟



Leopard Gecko Wild Types
7. November 2015

Our wild from this year

1,5 Khuzestan, 2,0,2? Kermanshah, 0,4 Hardwickii, 0,3,3? fuscus some are still available :)) b) a) Online advert by a German trader for Iranian leopard geckos from the Ilam province (www.enimalia.com), Aug. 2016.



### OMAN

**National legislation:** In accordance with "Royal Decree No. (6/2003) Issuing the Law on Nature Reserves and Wildlife Conservation" a permit issued by the Ministry of Regional Municipalities, Environment and Water Resources is required to collect live or dead wildlife or their parts for scientific, research, economic or trade purposes. For a variety of species, e.g. the Carter's rock gecko (*Pristurus carteri*), commercial exports are fully banned.

**Biodiversity:** The Arabian Peninsula with its diversity of desert and mountain habitats is well known for its reptile species richness, especially the regions Dhofar, Hajar and Barr al Hikman in Oman (GARDNER 2009; COX *et al.* 2012). Oman is home to at least 245 reptile species, of which 20 are endemic (UETZ *et al.* 2016; LIVING NATIONAL TREASURES 2016); due to the arid conditions only two frog species naturally occur in the country (AMPHIBIAWEB 2016).

**Illegal trade:** In 2012, a 28-year-old passenger from Oman was arrested at Munich airport, after 49 reptiles, including 31 Omani spiny-tailed lizards (*Uromastyx thomasi*), were found in his luggage (MAIN CUSTOMS SERVICE Munich 2012). The man claimed these animals were for his personal food supply; however, they were packed in cloth bags (see figure 7 a), which is a common method to transport reptiles commercially. The high prices within the European commercial hobbyist market (e.g. about 900  $\in$  for a pair *U. thomasi*; see figure 7 b) makes the food claim highly unlikely; instead evidence certainly points towards this individual serving as a courier for a European client.

**Uromastyx thomasi** is endemic to coastal Oman and is listed in CITES Appendix II since 1977. Only two legal exports of *U. thomasi* were ever officially reported from Oman, i.e. 16 wild-caught specimens by Germany for scientific purposes in 1998 and 16 seized specimens in 2008 by UAE (UNEP-WCMC 2016). However, since 1977 the USA (182), Switzerland (130), the Netherlands (120), Austria (88), and Czech Republic have reported exports of dozens of "captive-bred" animals, according to UNEP-WCMC (2016), which raises doubt on the legality of the breeding stock and may well indicate laundering of wild-caught specimens – especially as the demand for this species in the European commercial hobbyist trade is higher than the numbers being offered for sale. Specimens are regularly sold at European reptile fairs, price is  $\sim 900 \notin$  / pair (see figure 7b).

Non-CITES species from Oman are also in the target of smugglers: For example, the Carter's rock gecko (Pristurus carteri) is restricted to Oman and Yemen. According to the IUCN Red List these geckos fetch high prices in Europe and the United States, as well as Japan. Export is presently banned from Oman. The animals are difficult to keep and breed in captivity, and individuals occasionally found at reptile fairs are presumed to be illegally collected (SINDACO et al. 2012 and Thomas Wilms and M. Shobrak, cited herein). For example, for the Hamm show in March 2014 a commercial trader offered a variety of "very fresh" Arabic reptiles for delivery, with Oman being the only common country of origin among the species for sale (see figure 7 c). A USimporter offered "babies all hatched in Germany from 3 different wild-caught females" and advertised them as "new fresh bloodlines". Animals are sold for about 250-375 € each.

Originally, the Oman ghost leaf-toed gecko (*Hemidac-tylus lemurinus*) was thought to be endemic to Oman (UETZ *et al.* 2016), while in recent times populations in Yemen were also recorded (CARRANCA & ARNOLD 2012; JUMAILY *et al.* 2012). Occasionally, this highly uncommon reptile is offered in Europe (see figure 7 d).

#### FIGURE 7: PROTECTED SPECIES FROM OMAN IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Photo of seized *Uromastyx thomasi* at Munich Airport in 2012 © Main Customs Office Munich. The 31 animals were individually packed in cloths bags to ensure their survival.



c) Online advert at www.terraristik.com by a trader of unknown origin, offering "very fresh" specimens of different species native to Oman, including *P. carteri*, March 2014.



b) Offer by an Italian citizen in the closed Facebook group "Terraristika Hamm" for adult *U. thomasi*, June 2015.





d) Online advert at www.terraristik.com by a German trader of unknown origin, offering *Hemidactylus lemurinus*, Sept. 2015.

Biete Echsen	m	158xx mark brb Di, 01. Sep 15 23:52
2.2.1 hemidactylu 1.1 gekko gecko l 1.2 Gerrhonotus o 1.1 xenosaurus n 1.1 petrosaurus n 0.1 elgaria m. We 1.1 elgaria shasta	olue headed green patt ophiurus cb15 ewmanorum breeders learnsi	ko (normal)
ridde for egenia		ungeprüfter User 🤤

## PHILIPPINES

**National legislation:** According to the Philippine Republic Act No. 9147, "Wildlife Resources Conservation and Protection Act of 2001" collection, possession and trading of native wildlife without a permit is illegal. In the absence of a science-based quota system export of wild-caught animals was banned in 2000; export permits are only given for "farmed" or captive-bred specimens (RASHID 2013; SCHOPPE *in litt.* 2015).

**Biodiversity:** The Philippine Archipelago is home to a spectacular and diverse assemblage of amphibians and reptiles (DIESMOS *et al.* 2002; CALO & NUÑEZA 2015). So far about 360 reptile and 113 amphibian species have been described in the Philippines (AMPHI-BIAWEB 2016; UETZ *et al.* 2016). At least 236 reptile and 95 amphibian species are endemic to this archipelago (LIVING NATIONAL TREASURES 2016)

**Illegal trade:** Despite the export prohibition of wildcaught animals the illegal capture of tens of thousands of reptiles per year continues unabated (RASHEED 2013). The Philippine sailfin dragon, Hydrosaurus pustulatus, is endemic to the Philippines and classified by IUCN as Vulnerable. According to LEDESMA et al. (2009) specimens (especially hatchlings) are heavily collected for the commercial hobbyist trade and populations are generally considered susceptible to overharvesting. While the species is also heavily poached and traded (e.g. Cebu and Bacolod in Central Philippines, as well as Davao, in the southern part of the country, SY in litt. 2016) genetic analysis identified the Bicol Peninsula as the central source region for all illegal pet trade (SILER et al. 2014). Adult specimens of H. pustulatus are offered in the international commercial hobbyist trade for up to 1,000 € each, young ones for about  $350 \notin$ , e.g. in Portugal and United Kingdom (see figures 8 a, b), while in the USA prices may even reach 1,800 US\$ (see figure 8 c).

Philippine pit vipers, Trimeresurus flavomaculatus (syn. Parias flavomaculatus), and T. mcgregori (also in trade as Parias flavomaculatus or T. flavomaculatus *mcgregori*) are both endemic to the Philippines. Trade and private sale of these non-CITES species dates back to the 1980s, when dozens of T. flavomarginatus and T. mcgregori were illegally collected and smuggled to the USA and Europe (BROWN in litt. 2016). Certain subpopulations of T. flavomaculatus (e.g. from the Bicol Peninsula) might still be significantly impacted by collecting for the commercial hobbyist trade (BROWN et al. 2009). In addition, the origin of the many T. mcgregori outside of the Philippines is unclear and illegal collection for the international commercial hobbyist trade is still a major threat (SY et al. 2009). Specimens are sold in Europe for 120-200 € each for *T. flavomargina*tus (see figure 8 d, e), prices for *T. mcgregori* are slightly higher.

CITES listed species are also routinely smuggled out of the Philippines such as the Palawan forest turtle, *Siebenrockiella leytensis*, which is classified as Critically Endangered by IUCN (ASIAN TURTLE TRADE WORKING GROUP 2016) and listed in CITES Appendix II. While a major portion of the illegal trade is destined for food markets in Asia exports on a smaller scale are ongoing for the international commercial hobbyist trade (see figure 8 f). Specimens of *S. leytensis*, exported with CITES documents e.g. to the Czech Republic, are most likely specimens that are laundered as "captive-bred" (SY *in litt.* 2016).



Photo 3: Hydrosaurus pustulatus, endemic to the Philippines © Elliott Brown

#### FIGURE 8: PROTECTED ENDEMIC SPECIES FROM THE PHILIPPINES IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Facebook advert by a Portuguese trader, animals to be sold at reptile fair in Houten (Netherlands), Nov. 2015.

### Hamm And Houten Reptile Classifieds 30. November 2015 - Loulé, Distrikt Faro, Portugal -

### Available for Houten:

Hydrosaurus pustulatus 0.0.5 CB 2015 Tupinamis teguxini 0.1 sub-adult Liasis Mackloti 1.0 Coral Hortulanus 1.1 adult breeders Elaphe obsoleta 1.0 breeder

Varanus doreanus 1.0 adult (140/150cm) \_\_\_\_\_this animal will not be on show, so those interested will have to talk to me at most until Wednesday.

For more info PM please.



#### c) Facebook offer by an US trader, April 2016.



For hamm:

0 Bitis nasicornis €225,00

1.0 dendroaspis polylepis €400,00

0.1 trimeresurus flavomaculatus €125,0

0.1 trimeresurus trigonocephalus €150,00... Mehr anzeigen

b) Advert by a trader from United Kingdom, posted in closed Facebook group "Rare Reptiles Classified Europe", April 2014.

11. April 2014 - 回	
***FOR SALE*** Hydrosaurus pustulatus aka Philippine Sailfin Dragon Based near Halifax, West Yorkshire, UK 4 available, ages between 3-4 months old, CB (obviously) Eating everything that moves and already on vegetables. ***Experienced keepers only *** First come, first served.	
Can send pics of the dragons that are available. £295 each, collection only / buyer to arrange collection	



### d) Online-offer by a German trader in the closed Facebook group "Venomous reptile classifieds", Sept. 2014.



September 2014 · @

For sale Houten Show this year and a booking to Hamm in December :

Acantophis ant. spp. " Djarra" Male CB 2012

2.3 Parias flavomaculatus Adult LTC (one female SOLID red)

- 2.1 Porthidium landsbergii ROZEI yellow CB2013
- 2.2 Atheris squamigera
- 1.1 Bothrops alternatus CB 07/2014

•••••••••••••••

f) Online-advert at www.terraristik.com by a Czech trader, June 2015.

Biete Schlangen	i	hloubetin prague Mo, 22. Jun 15 15:26
1,1ophiophagus hanna	ah subadult	
2.2 heosemys leytens 1.2 azemiospa feae	S	
1.1 marmota bobak		
1.2 crocodylurus amaz	onicus	
		ungeprüfter User 🤤

### PAKISTAN

**National legislation:** In Pakistan, wild animals are – in line with Azad Jammu and Kashmir, Wildlife (Protection, Preservation, Conservation and Management) Ordinance, 2011 – the property of the Government. The CITES Management Authority has imposed a ban on the export of reptiles and mammals. Therefore, any export of reptiles for commercial purposes may be considered illegal (KHAN 2015).

**Biodiversity:** Being a transitional zone between three zoogeographical regions (the Palearctic, the Oriental and the Ethiopian) and a country with large altitudinal differences, Pakistan has some of the world's rarest animals and plants (IUCN 1997; FICETOLA *et al.* 2010). Presently, scientists recognise about 208 reptile species in Pakistan, of which 25 (and a variety of subspecies) are endemic (UETZ *et al.* 2016; LIVING NATIONAL TRE-ASURES 2016).

**Illegal trade:** Pakistan's leopard geckos, *Eublepharis macularius*, are sought-after in international pet trade due to their striking colours and hardy and calm nature in captivity. Local authorities in Pakistan's north-western province Khyber Pakhtunkhwa raised the alarm over the increased poaching of leopard geckos for the international pet trade: In particular cases, local collectors are paid up to 4,000 € for specimens, depending on uniqueness of colours and patterns (ANON. 2014b).

Although exports from Pakistan are prohibited, in August 2015 commercial hobbyists from Germany explicitly offered several reptile species as wild-caught and originating from Pakistan (see figure 9 a). The Persian spider gecko, *Agamura persica*, is distributed on the Central Plateau of Iran and adjacent areas of Afghanistan and Pakistan. The species is commercially traded in unknown numbers (PAPENFUSS *et al.* 2010), with prices of approximately 80  $\in$  each.

Occasionally, wild-caught individuals of the Sind gecko, *Crossobamon orientalis*, are offered for the European commercial hobbyist market (see figure 9 b). While this species is native to both India and Pakistan, the specimens on sale were likely from Pakistan, as their trader, a German citizen, is the business partner of the person, who offered wild-caught *A. persica* from Pakistan at the same time (see figure 9 a).

Despite the fact that leopard geckos, *Eublepharis macularius*, are commonly kept and bred in captivity, there is demand for wild-caught specimens to refresh bloodlines and introduce new patterns and colours. While this species is also native to Afghanistan and India, several traders from Germany and Czech Republic have posted online adverts for wild-caught specimens explicitly from Pakistan or related offspring (see figure 9 a, c, d). With prices of approximately  $50 \in$  each these animals are comparatively cheap and may be commercialized in large numbers.



Photo 4: Eublepharis macularius, native to Pakistan, India, Afghanistan and Iran © Kerstin Franke

b) Online advert by a German commercial trader at www.

terraristik.com, highlighting the wild-caught origin, Aug

Di. 11. Aug 15 21:08

ungeprüfter User 🤤

T

Crossobamon ( Stenodactylus ) orientalis WF

#### FIGURE 9: PROTECTED SPECIES FROM PAKISTAN IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

2015.

**Biete Echsen** 

I will be in Hamm.

**Crossobamon orientalis** 

( Biteriteri 1876 )

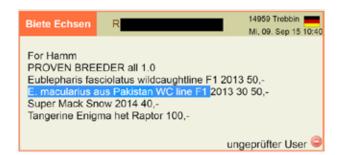
Rare offer

a) Online advert by a German commercial trader at www. terraristik.com, highlighting the wild-caught origin from Pakistan, Aug. 2015.



ungeprüfter User

d) Online advert by a German trader at www.terraristik.com, offering offspring of wild-caught parental stock of *Eublepharis macularius* from Pakistan, Sept. 2015.



# INDIA

**National legislation:** India's native fauna is protected by the WILDLIFE (PROTECTION) ACT, 1972, including all reptilian species. Accordingly, any capture of animals without a licence is prohibited (VYAS 2014). It is not permissible to export any of the species listed on Schedules I-IV of the WLPA, except if the specimen has an ownership certificate or it is required for education, scientific research or management. Even if a specimen has a valid ownership certificate, it is only allowed to be transferred by way of inheritance, so export for commercial purposes is not permitted (WPSI 2014).

**Biodiversity:** At least 689 reptile species are recorded in India (UETZ *et al.* 2016), of which a minimum of 238 reptile species (34%) are endemic (LIVING NATIONAL TREASURES 2016). Amphibian diversity is even higher, with at least 382 species (AMPHIBIAWEB 2016), of which 287 (= 75%) are endemic, and dozens described only since 2013 (LIVING NATIONAL TREASURES 2016). The mountain chain of the Western Ghats has an exceptionally high level of biological diversity and endemism and is recognized as one of the world's eight 'hottest hotspots' of biological diversity (UNESCO 1992-2016).

**Illegal trade:** Smuggling attempts for Indian reptiles are regularly reported (THAKUR 2015; CHAUHAN 2016) and in 2009, the Wildlife Crime Control Bureau in New Delhi raised the alarm on an increasing organised poaching activity for the international market (PTI 2009). The Anaimalai spiny lizard **(Salea anamallayana)** is an endemic agamid restricted to the high altitudes of the southern Western Ghats with its extent of occurrence being less than 500 km<sup>2</sup> (DEEPAK & VASUDEVAN 2008; SRINIVASULU *et al.* 2013a). The species is sometimes available in international commercial hobbyist trade; this rarity in trade is reflected in the high price of about US\$4,000 per pair (see figure 10 a, b).

The Deccan ground gecko (*Cyrtodactylus deccanensis*, syn. *Geckoella deccaensis*) is endemic to the northern Western Ghats in Gujarat, Maharashtra and northern Karnataka (Belgaum). While IUCN (SRINIVASULU & SRINIVASULU 2013) noted that specimens in trade refer to captive-breds, reliable reports on instances of captive breeding of this species are hardly to find. Adult specimens are sometimes offered for sale in the European commercial hobbyist trade (see figure 10 c), prices are approximately 1,000  $\in$  per pair.

The Roux's forest lizard **(Calotes rouxii)** is only found in western India (Andhra Pradesh, Goa, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Tamil Nadu) (SRINIVASULU *et al.* 2013b). During the breeding season adult males develop an attractive brilliant red head and crest (SREEKAR *et al.* 2011). Traders from e.g. Germany and the Czech Republic sell this species for approximately 250 € per pair (see figure 10 d).



Photo 5: Calotes rouxii, endemic to western India © L. Shyamal

### FIGURE 10: PROTECTED ENDEMIC SPECIES FROM INDIA IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Online advert at www.faunaclassifieds.com by a US citizen, March 2016. The animals were offered for US\$ 4,000 per pair.



c) Online advert at www.terraristik.com by a German trader for an adult pair of *Geckoella deccanensis*, June 2015.



b) Facebook advert in the closed group "rare reptiles classified Europe" by a British trader, October 2015.



d) Facebook advert by a Czech trader in the closed Facebook group "Hamm and Houten reptile classifieds" for an adult pair of *Calotes rouxii*, April 2016.



# AUSTRALIA (UPDATE)

**National legislation:** In Australia, export of wildlife is strictly regulated under the nation's key environment legislation – the Environment Protection and Biodiversity Conservation Act 1999, which came into force in July 2000. Before, native wildlife was protected by the Wildlife Protection (Regulation of Exports and Imports) Act 1982. Commercial export of native animals may only be permitted for dead specimens from approved sources, for live reptiles no export is allowed (DEPART-MENT OF THE ENVIRONMENT 2016).

**Biodiversity:** Being one of the 17 mega-diverse countries Australia is known for its enormous herpetological diversity: With at least 917 recognised reptile species Australia's herpetofauna is outstanding, and approximately 93% are endemic (CHAPMAN 2009; MITTER-MEIER & MITTERMEIER 2004).

**Illegal trade:** For decades Australia's unique fauna has been a target for smugglers, many of them from Europe (AAP 2000; ANON. 2009; Towie 2009; Barry 2011; Fettes 2014). In our first report "Stolen Wildlife" (Altherr 2014) Australia had already been the subject of a case study, with a focus on illegal trade in shingleback skinks (*Tiliqua rugosa*), and leaf-tailed geckos (*Saltuarius spp.*). Since then more alarming cases have come to light:

In February 2015, two Russian and two Czech citizens were arrested in West Australia for trying to smuggle almost 200 reptiles and amphibians, including skinks, geckos, and frogs (DEAN 2015). During their court case in September 2015 the men were sentenced to a term of imprisonment of 12 month but because of time already served they were released early on a good behaviour bond (MENAGH 2015). In June 2015, while awaiting their trial and still on remand in Australia, one of the two Czech smugglers posted on Facebook offers of at least five species of Australian endemic knob-tailed geckos as "captive-bred", i.e. Nephrurus deleani (see figure 11 a), N. milli (see figure 11 b), N. wheeleri (see figure 11c), *N. levis* (see figure 11 d), and *N. laevissimus*. N. deleani is classified by IUCN as Endangered (AUST-RALASIAN REPTILE & AMPHIBIAN SPECIALIST GROUP 1996). Adverts for large numbers of adult Nephrurus geckos ("ready to breed", "all giving eggs"), such as those offered by a Spanish trader (see figure 11 e), justify serious doubts of the legal origin of those animals.

**Nephrurus** commercial hobbyists in Europe and the USA have serious problems with inbreeding and its resultant health disorders, and collapsing captive populations, which makes wild-caught specimens highly sought-after for breeding (ANON. 2004, 2013). Market value of *N. wheeleri* is up to 1,000  $\in$ ; female specimens, e.g. *N. asper*, may fetch prices of up to 1,500  $\in$ . According to an analysis for the EU Commission, costs for *N. deleani* were estimated 1,500  $\in$  on an Italian forum and in the US pairs were offered for US\$2,200-2,300 (UNEP-WCMC 2009).

In early 2016, Pro Wildlife received information from an informant about the large-scale illegal collecting of several dozen adult shingleback skinks (*Tiliqua rugosa*) in Australia destined to be smuggled to Hong Kong, SAR China. The black market price for this species is 4,000-15,000  $\in$  per animal. A few weeks after the smuggeling a trader in Hong Kong posted on his Facebook account photos of a large number of different adult specimens of *T. rugosa* (see figure 11 f) and photos of his shipments to clients in the US, Germany, Indonesia, and Japan. Pro Wildlife informed the authorities in those countries; however, apart from the US no other country involved has a regular legal basis to act against smugglers of non-CITES species exported in violation of other nations' laws.

#### Smugglers hid animals in books, cigarette packets

Amanda Banks [Legal Affairs Editor - The West Australian on September 17, 2015, 11-45



Photo 6: Headline of The West Australian, September 17, 2015

### FIGURE 11: PROTECTED SPECIES FROM AUSTRALIA IN INTERNATIONAL COMMERCIAL HOBBYIST TRADE

a) Advert in the closed Facebook group "International trade for geckos" (as of 8 June 2015) for "captive-bred" *N. deleani* by a Czech reptile smuggler, who has been arrested in Australia four months earlier.



c) Advert in the closed Facebook group "International trade for geckos" (as of 8 June 2015) for "captive-bred" *N. wheeleri* by a Czech reptile smuggler, previously arrested in Australia.



e) Online advert by a Spanish trader on www.terraristik.com; focus on Australian species, many of them marked as adult specimens ("all giving eggs", "ready to breed", "full adults"); July 2016.



b) Advert in the closed Facebook group "International trade for geckos" (as of 8 June 2015) for "captive-bred" *N. milli* by a Czech reptile smuggler, who has been arrested in Australia four months earlier.



d) Advert in the closed Facebook group "International trade for geckos" (as of 8 June 2015) for "captive-bred" *N. levis* by a Czech reptile smuggler previously arrested in Australia.



f) Facebook posts by a trader from Hong Kong of some of his many adult *Tiliqua rugosa*. The trader also posted photos of shipments to clients all over the world, Aug 2016.



### RECOGNITION FOR THE NEED OF AN EU LACEY ACT

Since November 2014, when the Pro Wildlife report "Stolen Wildlife" (Altherr 2014) documented the systematic trade in non-CITES-species that were taken illegally from their country of origin, this issue has raised broad attention in different EU institutions, CITES Parties and the wider conservation community, which has led to a series of actions. Unfortunately, the EU so far has not taken the necessary steps to halt their citizens' wildlife trafficking activities.

The findings of "Stolen Wildlife" were discussed at the 69th meeting of the EU CITES Management Authorities in December 2014 (EU CITES COM 2014). UNEP-WCMC (2015), commissioned by the EU, identified priorities in preparation for CITES CoP17. Finally, the EU CITES authorities agreed to work with range states and to submit a number of listing proposals: *Abronia spp.*, in coordination with Mexico (CITES CoP17 Prop. 26); *Cnemaspis psychedelica*, in cooperation with the sole range state Viet Nam (CITES CoP17 Prop. 29); *Lygodactylus williamsi*, in coordination with the sole range state Tanzania (CITES CoP17 Prop. 30); and *Paroedura masobe*, in cooperation with the sole range state Madagascar (CITES CoP17 Prop. 31).

Also other CITES Parties submitted proposals to list their nationally protected species under CITES, i.e. ten Abronia species (CITES CoP17 Prop. 25 by Guatemala), Lanthanotus borneensis (CITES CoP17 Prop. 32 by Malaysia), Atheris desaixi (CITES CoP17 Prop. 34 by Kenya), and Bitis worthingtoni (CITES CoP17 Prop. 35 by Kenya). These proposals will be discussed at the CITES CoP17 meeting, 24 Sep-5 Oct 2016, in Johannesburg (South Africa). While these proposals are welcome and needed, the basic problems - fatal gaps in European and international legislation - are not overcome: While the EU initiative and support for CITES listing proposals is very commendable, this approach alone will not be sufficient to solve two much more far-ranging systemic problems in the EU. One is the lack of legislation to prohibit trade in illegally sourced wildlife. A very large number of non-CITES species is in illegal trade; hence a limited number of listing proposals will not impact the ongoing illegal trade in many other species. The second problem is the inadequate consideration of the illegal origins of parental stock when issuing CI-TES permits for captive bred specimens of CITES-listed species. By issuing CITES permits for such animals, EU Member States are facilitating the laundering of entire illegal lineages of many species into lawful trade. Jointly this can only encourage future smuggling of many more species, both CITES-listed and non-CITES.

Many more nationally protected species remain the focus of unscrupulous traders to be collected and sold in overseas commercial hobbyist markets. Although aware of this, the EU Commission so far is not planning to introduce legislation to prohibit the import, trade, sale and possession of illegally taken nationally protected wildlife. The EU Commissioner for Environment, Mr. Karmenu Vella, in response to a letter from 156 scientists, field biologists and conservationist, calling for an "EU Lacey Act", stated: "There is currently little evidence that wildlife products not covered by the EU legislation are being smuggled out of their country of origin to an extent that would justify an additional legislative initiative ... " (VELLA 2015). However, thereby the EU Commissioner ignored the fact that for threatened species with small wild populations even the collecting of low numbers may have detrimental consequences to maintain viable populations.

Instead of preparing an equivalent Lacey Act the EU submitted CITES CoP17 Doc. 80 "CITES Appendix III - an added-value for the conservation of threatened wild-life with restricted distribution" to encourage range states to include more species in CITES Appendix III. However, while Appendix III is in several cases a use-ful tool, it leaves the need to act with the countries of origin and ignores the responsibility of the destination countries, its citizens engaged in smuggling and CITES authorities, who may issue permits for animals of illegal origin.

Penalties for CITES Appendix III violations are also generally low and many countries do not inspect such shipments and their accompanying documents as carefully as for Appendix I or II species. Weak penalties and low enforcement effort combine to create a very limited deterrent effect. Finally, for biodiversity hotspot range states, such as Brazil, Mexico and Sri Lanka, a listing of all their hundreds or even thousands of nationally protected species would be an enormous bureaucratic challenge and would inflate the number of species listed in the CITES Appendices to unmanageably high numbers. Specimen identification guides would increase in size many fold and requiring a global level of training and capacity building, which would far outstrip the willingness and capacity of donors to support. Accordingly, Appendix III may be a good option for some species, but it does not solve the EU problem in general; instead, consumer countries need to establish legislation, which supports the legal status of countries of origin by banning import, possession, and trade of specimens caught or exported in violation of other nations' laws.

Fortunately, an increasing number of experts and institutions within the EU and internationally has recognised the problem and is calling for action by the EU (see Table 1).

### TABLE 1: INCREASING AWARENESS AND SUPPORT FOR THE NEED OF AN EU LACEY ACT

UNITED NATIONS	JULY 2015	RESOLUTION 69/314: TACKLING ILLICIT TRAFFICKING IN WILDLIFE " 3. urges Member States to take decisive steps at the national level to prevent, combat and eradi- cate the illegal trade in wildlife, on both the supply and demand sides, including by strengthening the legislation necessary for the prevention, investigation and prosecution of such illegal trade. 4. Calls upon Member States to make illicit trafficking in protected species of wild fauna and flora involving organized criminal groups a serious crime". (United Nations 2015)
156 SCIENTISTS AND EXPERTS FROM 45 COUN- TRIES	NOV 2015	JOINT LETTER TO THE EU ENVIRONMENT COMMISSIONER KARMENU VELLA: "The undersigned scientists kindly urge you to pass a legislation, making import, sale, purchase and re-export of specimens, which have been captured, traded or exported in violation of laws in the country of origin, a criminal act within the EU. We believe this should be included as a goal of the EU Action Plan. This would be in line with UN Resolution A/RES/69/314"
EU COMMISSION, DG ENVIRONMENT	FEB 2016	STAFF WORKING DOCUMENT – ANALYSIS AND EVIDENCE IN SUPPORT OF THE EU ACTION PLAN AGAINST WILDLIFE TRAFFICKING: p. 24: "The illegal trade in exotic pets, especially in live reptiles, has received increased attention, with the EU appearing as an important consumer region and thus driver of this trade. This includes species which, though not covered by the CITES Convention, are protected nationally. Exporting them thus breaks the law of their country of origin. But in the absence of an appropriate legal basis through a CITES listing, EU Member States are not always able to seize these species once they are on the EU market." (EU Commission 2016)
EUROPEAN PAR- LIAMENT, POLICY DEPT A	MAR 2016	STUDY "WILDLIFE CRIME": p. 109, item 6.2.8: "The EU should consider measures to curtail activities involving wildlife species protected by laws of their countries of origin (only); this may include new legislation, making import, sale, purchase and re-export of specimens, which have been captured, traded or exported in violation of laws in the country of origin a criminal act within the EU" (EU Parliament 2016a)
EFFACE (EUROPEAN UNION ACTION TO FIGHT ENVIRON- MENTAL CRIME)	APR 2016	CONCLUSIONS AND RECOMMENDATIONS, EFFACE RESEARCH REPORT p. 32: "For example, one of the recommendations that came up at the final conference considered the introduction in Europe of legislation similar to the US Lacey Act which would facilitate the fight against transboundary crime." (EFFACE 2016)
UNODC (UNITED NATIONS OFFICE ON DRUGS AND CRIME)	MAY 2016	WORLD WILDLIFE CRIME REPORT: TRAFFICKING IN PROTECTED SPECIES (UNOCD 2016): p. 12: "There are millions of species for which international trade is not regulated, and certain cases reviewed for this report suggest that these species can be legally traded internationally, even when harvested or exported contrary to national law." p. 13: "Illegal trade could be reduced if each country were to prohibit, under national law, the posses- sion of wildlife that was illegally harvested in, or illegally traded from, anywhere else in the world." p. 37: "Outside CITES, most destination countries lack a legal basis for refusing wood that was harves- ted or exported contrary to source country regulations. The US Lacey Act, the EU Timber Regulations, and the Australian Illegal Logging Prohibition Act are exceptional because they prohibit the import of any illegal timber, wherever the law was broken."
ENVIRONMENTAL COMMITTEE OF THE EU PARLIAMENT	JULY 2016	The ENVI Committee agreed on a RESOLUTION on the EU strategic objectives for the 17th CITES mee- ting (to be finally accepted by the EU Parliament in September) " 13. Urges the EU to adopt legislation to reduce illegal trade by making it illegal to import, export, sell, acquire or buy wild animals or plants which are taken, possessed, transported or sold in violation of the law of the country of origin or transit;" (ENVI Com 2016)

# CONCLUSIONS

- The present report follows Pro Wildlife's 2014 report "Stolen Wildlife" (Altherr 2014), which analysed for the first time the systematic exploitation of, and trade in, threatened species that are strictly protected in their range state (ALTHERR 2014). Once such rare and nationally protected species have been smuggled outside their country of origin, import into and sale within the European Union and most other markets are legal, unless they are protected through a listing on CITES.
- Furthermore, this report provides an overview on statements, discussions and developments at the political level since our first report, e.g. by EU institutions and the United Nations. Meanwhile a large number of scientists, the EU Parliament's Environment Committee and reports commissioned by UNODC and the EU Parliament, support the idea of a legislation in the importing countries, which prohibits the possession and trade of illegally taken and exported specimens.
- The present report provides eight new case studies on illegal trade in reptiles and amphibians from Brazil, Costa Rica, Turkey, Iran, Oman, Philippines, Pakistan, and India plus an update for Mexico and Australia, which were already covered in the first report.
- As highlighted by several authors, "rarity sells" (e.g. BROOK & SODHI 2006; HALL et al. 2008; LY-ONS & NATUSCH 2013; AULIYA et al. 2016a,b). The present report illustrates several factors that trigger the smuggling of species:
  - » A species is newly described and not yet available in the international market.
  - » A species is sought after in trade, nationally protected, but not covered by CITES.
  - » A species is well-established in captivity, but captive populations suffer from inbreeding and "new blood" is highly sought after to reinvigorate these populations.
  - » Striking colours and rare patterns of wildcaught specimens from remote areas fetch significantly higher prices than breeding-lines in captivity.

- The present report documents the organised networks of wildlife traffickers: In most cases there is at least one person, travelling to the range states and collecting the animals or paying local people to act as collectors. Animals are illegally shipped out either within their own luggage, via couriers or via parcels sent by mail. Another person is responsible for the "official" trading part of the business, i.e. organising stalls at trade fairs and running official trade-websites. Online adverts with notes such as "for preliminary order" enable smugglers and related traders to identify which species are in highest demand. In some cases, the smugglers or the connected traders publish their online adverts shortly before or during collection trips to range states to optimise the range of species and number of individuals collected.
- The big reptile fairs in Europe are meeting points and hubs for traders and buyers of rare and nationally protected species, e.g. in Hamm (Germany), Houten (Netherlands), Longorane (Italy), Barcelona (Spain) and Prague (Czech Republic).
- CITES regulations are the most relevant tool to regulate international trade in endangered species. However, listing of new species in the CITES Appendices is a slow process, often hampered by the lack of biological and trade data, limited resources in national CITES authorities, and sometimes political or economic resistance. To date the EU does not even record the imports of species other than those listed in the EU wildlife trade regulation.
- CITES Appendix III listing of endangered and nationally protected species has been suggested by the EU as solution. While this may be a useful tool for a limited number of nationally protected species it does not seem feasible for the many cases, where range states have a large number of nationally protected species and lack the resources to dramatically expand their portfolio of CITES implementation and enforcement.
- The USA is the only country in the world, which has legislation in place (i.e. the "US Lacey Act")

which makes it unlawful to import, export, transport, sell, receive, acquire, or purchase wildlife that are taken, possessed, transported, or sold either in violation of U.S. or foreign law. The U.S. is also the only country in the world that records all import, exports and re-exports of all animal and plant species, whether CITES-listed or not.

In contrast, enforcement staff in EU Member States (and almost all other countries) has no legal means to take action against individuals or businesses trading in protected species in violation of foreign wildlife protection laws. This huge legal gap not only allows a wildlife black market to thrive in the EU, but serves to encourage smuggling into the EU so that illegal animals can be laundered into legal trade. This black market industry for commercial hobbyists generates high profits by trading nationally protected species, often comparable to profits for CITES Appendix I or II species, but with almost no risk of enforcement or legal consequences.

In summary, this report illustrates how European citizens and weak European laws are undermining the effectiveness of developing countries efforts to protect their species, which is not only a conservation risk but can also undermine efforts toward sustainable development. This legal gap is also in contradiction to the commitment of the European Union to the Rio de Janeiro Convention on Biological Diversity, including the recognition of sovereign rights of States over their own biological resources.

## RECOMMENDATIONS

- **Close cooperation between range states and importing countries** is essential to prevent trafficking of nationally protected species for the international trade.
- Range states need to **strengthen their efforts to enforce national legislation,** to intensify controls and to impose deterrent fines for wildlife crime. In addition, they should exchange information about their national legislation with destination countries.
- Pro Wildlife, supported by an increasing number of institutions and experts, recognizes the trade in nationally protected species as serious enforcement and conservation problems and **calls on importing countries parti**cularly important markets such as the EU – to pass legislation comparable to the US Lacey Act.
- In addition to an EU Lacey Act, the EU, in cooperation with the USA, should establish a **database of national legislation**, detailing prohibitions on capture, trade and export of wildlife in range states. Such a database would also help to enforce existing trade restrictions for species listed in CITES or the EU regulation, which are additionally protected under national regulations.



Photo 7: Phrynosoma solare, endemic to Mexico © Br Davids

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