

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Twenty-eighth meeting of the Animals Committee
Tel Aviv (Israel), 30 August-3 September 2015

Interpretation and implementation of the Convention

Species trade and conservation

Snake trade and conservation management (Serpentes spp.)

IUCN RED LIST ASSESSMENTS OF ASIAN SNAKE SPECIES
(DECISION 16.104)

1. This document has been prepared by the Global Species Programme of the International Union for Conservation of Nature (IUCN).
2. At its 16th meeting (CoP16, Bangkok, 2013), the Conference of the Parties adopted Decision 16.104, directed to the Animals Committee, as follows:

The Animals Committee shall, at its 27th meeting, consider the final IUCN red list assessments for Asian snake species and, if available, incorporate new information and data and make appropriate recommendations, including recommendations to the Standing Committee.

3. IUCN convened workshops in China (2011) and India (2010) to assess the extinction risk of snake species. A total of 512 species were considered, and the results for 402 species were published on the Red List of Threatened Species (www.iucnredlist.org). An assessment of the remaining 110 species is currently in the process of being finalized.
4. Thirty-four of the snake species considered in the workshops and published on The IUCN Red List of Threatened Species are threatened (Critically Endangered: 5 species; Endangered: 12; and Vulnerable: 17). A further eight species were listed as Near Threatened and 254 as Least Concern. A relatively large number of species (106) was categorized as 'Data Deficient', meaning there was not enough information to determine whether these species were threatened or not.
5. The 27th meeting of the CITES Animals Committee reviewed a provisional list of snake species identified as potentially threatened by trade based on information included in The IUCN Red List of Threatened Species. It directed the 28th meeting of the CITES Animals Committee to re-consider the list, following the incorporation of additional information from recently completed surveys and a further round of expert consultation.
6. IUCN reviewed the known conservation status of 115 snake species from Asia that were published on the IUCN Red List of Threatened Species and reported to occur in international trade.

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7. Detailed information on the scope and quantity of international trade was scarce for most species. In some cases, species were subject to high, and potentially detrimental, harvesting for domestic markets, or across only a small portion of its geographic range. This review has identified snake species most at risk from international trade.
8. International trade is currently considered unlikely to be a major threat to 82 snake species. A further 29 species are traded internationally at levels that warrant additional studies, whilst for four species, there already appears to be evidence suggesting that international trade is a major threat.
9. Harvest levels, including as by-catch for domestic and international markets were high for a number of freshwater and marine snakes. High exploitation of aquatic snakes is therefore of concern. A number of kraits, pit vipers and rat snakes also appear subject to exploitation levels which may be detrimental to wild populations.
10. Species of elephant trunk snakes (*Acrochordus* spp.), banded flying snake (*Chrysopelea pelias*), royal tree snake (*Gonyophis marginatus*), rat snake (*Euprepiopphis* spp.), rhinoceros snake (*Rhynchophis boulengeri*), sea snake (*Enhydrina* and *Laticausa* spp.), water snakes (*Enhydris* spp., *Homalopsis* spp. and *Xenochrophis* spp.) and vipers (*Azemips feae*, *Cryptelytrops rubeus*, *Daboia siamensis*, *Gloydius monticola*, *Parius malcolmi*, *Protobothrops kaulbacki*, *Pseudocerastes persicus*, *Trimeresurus* spp.) all require additional detailed investigation because available information indicates that exploitation for international trade may currently be a major threat.
11. Four restricted range species, *Popeia buniana*, *Popeia nebularis*, *Cryptelytrops kanburiensis*, as well as *Orthriophis moellendorfi* appear particularly at risk from international trade.

Recommendations

12. Given that information and data on the basic biology and trade in most snake species in Asia are lacking, and that some species are subject to apparently high levels of exploitation for international trade, IUCN provides the following recommendations for consideration by the Animals Committee:
 - a) Range States, importing countries, and other Parties are encouraged to conduct more detailed assessments of those species indicated in Table 1 for which available information suggests that international trade is likely to be a threat (4 species) or may be a threat (29 species), focusing on research to determine whether the species warrant inclusion in the Appendices of CITES.
 - b) In particular, range States of *Popeia buniana* (Malaysia), *Popeia nebularis* (Malaysia), *Cryptelytrops kanburiensis* (Thailand and probably Myanmar) and *Orthriophis moellendorfi* (China and Vietnam) should assess whether existing legislation, protected areas and current levels of trade are compatible with the conservation of these species in the wild, and evaluate the possible listing of these species under CITES (including Appendix III).
 - c) Parties and range States are encouraged to compile more information on the exploitation levels (i.e. direct harvest and as by-catch) of freshwater and marine aquatic snakes subject to high volumes of international trade, including all species of Elapidae (*Hydrophis* spp., *Kerilia* spp., *Lapemis* spp., *Laticauda* spp., *Thalassophina* spp.) and Homalopsidae (*Enhydris* spp., *Erpeton* spp., *Homalopsis* spp.) indicated in Table 1 to evaluate the possible listing of these species under CITES (including Appendix III).
 - d) Exporting countries and other Parties may wish to put in place precautionary management measures, such as establishing closed areas/ seasons, daily seasonal catch quotas, restricting the use of certain types of fishing gear or imposing size-limits, and improved domestic monitoring and reporting mechanisms for aquatic (freshwater and marine) snakes, including all Elapidae and Homalopsidae species indicated in Table 1.
 - e) Parties should encourage research to improve the understanding of the ecology, biology and conservation needs of Asian snakes, *inter alia* through supporting relevant scientific institutions and promoting additional field studies.

Background

CoP15 Doc. 48 noted that the Asian Region may contain as many as 30% of the world's snakes and that many species are harvested for domestic and international trade and consumption. Snakes in this region are traded for use as medicine, food, exotic pets and clothing and clothing accessories. Trade in live Asian snakes, snake parts and skins are thought to be one of the largest under-regulated global trades of wildlife products. Estimates of international and domestic trade are difficult to obtain because only a few Asian species (i.e. cobras and pythons) are listed on CITES. It is also challenging to understand the role that snake farms play in meeting the demand for products from certain species. Whilst a few documented examples exist of the impact of harvest and trade in snakes in Asia, the level of trade and its impact on wild populations for most species remains unknown, or at least undocumented.

Method

The analysis was conducted by the IUCN Global Species Programme and experts from the IUCN Species Survival Commission and consisted of the following steps:

- Baseline List: following Decision 16.104 we developed a list of species for inclusion using published accounts from The IUCN Red List of Threatened Species (IUCN Red List). For reference please see the individual species accounts on the IUCN Red List website (www.iucnredlist.org);
- Snakes in Trade: species listed as occurring in international trade on the IUCN Red List were selected. These were augmented by the results of an unpublished survey by the International Trade Centre (www.intracen.org) that provided a list of snake species in international trade. The final list for analysis therefore consisted of Asian snake species identified as occurring in trade by the IUCN Red List or the ITC survey;
- Trade as a Threat: using the narrative accounts, and downloaded tabular data, from the IUCN Red List as well as other supporting documentation when available, each species on the list was assessed to determine the extent to which international trade is likely to be a threat. Species were therefore accordingly classified:
 - i. Based on available information, international trade in this species is currently unlikely to be threatening wild populations (used for species that were only occasionally recorded in trade or for species that, despite being subject to relatively high offtake in some parts of their range, were not considered threatened by harvest for international markets);
 - ii. Based on available information, international trade may be a threat and further detailed investigations are required (used for harvested species that were Data Deficient and lacking reliable insights into whether international trade was a threat or not);
 - iii. Based on available information, a more detailed analysis and potentially management interventions or trade regulations are needed because levels of international trade in this species is likely to be a threat (used for species that are threatened on the IUCN Red List and harvest and trade are listed as major threats, or species that appear to be subject to unsustainably high offtake in some areas despite their global Least Concern status on the IUCN Red List)
- Expert Review: an annotated list of each species was circulated to experts from the IUCN Species Survival Commission's special groups for Tortoises and Freshwater Turtles, Boa & Pythons, Vipers and the Snake and Lizard Red List Authority;
- Each expert was asked to broadly comment on the list but specifically to note if they agreed with the classification, if they could provide any additional supporting information and whether there were other species of high concern that were not on the list.

Results

We considered a list of 115 species of snakes to be in international trade for the purposes of this study. Eighty two species were considered unlikely to be currently threatened by international trade, whilst trade levels were a potential concern for 29 species and a concern for four (Table 1).

Table 1 Summary of the Asian snake species recorded from international trade, including information on threats and the likely impact of the threats on wild populations. Each taxon is categorised according to the currently likely impact of international trade on wild populations:

- (i) based on available information, international trade may be a threat and further detailed investigations are required (light shading and as marked as ‘maybe’)
- (ii) based on available information, a more detailed analysis and potentially management interventions or trade regulations are needed because levels of international trade in this species are likely to be a threat (dark shading and marked as ‘likely’)
- (iii) based on available information, international trade in this species is unlikely to be threatening wild populations (no shading and marked as ‘unlikely’)

DD – Data Deficient; LC – Least Concern; VU – Vulnerable; EN - Endangered

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
ACROCHORDIDAE			
<i>Acrochordus arafurae</i>	LC	Elephant trunk snakes: These snakes are harvested for leather caught in lower quantities for the pet trade. Trade volume is relatively high.	maybe
<i>Acrochordus granulatus</i>	LC		
<i>Acrochordus javanicus</i>	LC		
<i>Ahaetulla fasciolata</i>	LC	Vine snakes: <i>A. prasina</i> is harvested for medicinal purposes in some parts of its range but direct exploitation is not considered a threat to any of the three taxa	unlikely
<i>Ahaetulla mycterizans</i>	LC		
<i>Ahaetulla prasina</i>	LC		
COLUBRIDAE			
<i>Boiga bengkuluensis</i>	DD	Cat snakes: Direct exploitation is not considered a threat to any of the theses species	unlikely
<i>Boiga cynodon</i>	LC		
<i>Boiga drapiezii</i>	LC		
<i>Boiga guangxiensis</i>	LC		
<i>Boiga jaspidea</i>	LC		
<i>Boiga kraepelini</i>	LC		
<i>Boiga nigriceps</i>	LC		
<i>Chrysopelea pelias</i>	LC	Banded flying snake: Recorded in international pet trade; the impact on wild populations is unknown	maybe
<i>Gonyophis margaritatus</i>	LC	Royal Tree Snake: Recorded in international pet trade;, the impact on wild populations is unknown	maybe
<i>Gonyosoma oxycephalum</i>	LC	Red-tailed racer: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely
<i>Dendrelaphis formosus</i>	LC	Beautiful bronze-backed tree snake: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely
<i>Coelognathus flavolineatus</i>	LC	Yellow-striped rat snake: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
<i>Elaphe bimaculata</i>	LC	Twin spotted rat snake: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely
<i>Euprepiophis mandarinus</i>	LC	Mandarin rat snake: Collection of this species for the international pet trade and food may threaten wild populations in some areas	maybe
<i>Euprepiophis perlacea</i>	EN	Sichuan rat snake: Habitat loss is the main threat to this species but it is also harvested for food and skins	maybe
<i>Dryophiops rubescens</i>	LC	Brown whip snake: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely
<i>Liopeltis frenatus</i>	LC	Stripe-necked snake: Collection of this species for the international pet trade does not appear to threaten wild populations	unlikely
<i>Lycodon flavozonatus</i>	LC	Wolf Snakes: Species which are generally not considered to be threatened or traded in significant numbers	unlikely
<i>Lycodon laoensis</i>	LC		
<i>Lycodon meridionale</i>	LC		
<i>Lycodon rosozonatus</i>	DD		
<i>Maculophis bella</i>	LC	Bella rat snake: Thought to be recorded in international pet trade but collection does not appear to threaten wild populations	unlikely
<i>Oligodon chinensis</i>	LC	Kukri snakes: Any international trade in these snakes is not thought to be a major threat; <i>O. lacroixi</i> is only known from a few specimens	unlikely
<i>Oligodon cinereus</i>	LC		
<i>Oligodon lacroixi</i>	VU		
<i>Oligodon multizonatus</i>	DD		
<i>Oligodon ornatus</i>	LC		
<i>Oocatochus rufodorsatus</i>	LC	Frog-eating rat snake: Recently recorded in the international pet trade but volumes are likely to be very small and do not appear to constitute a threat	unlikely
<i>Orthriophis moellendorfi</i>	VU	Moellendorff's Trinket Snake: Overexploitation is the main threat to this species; its meat is used for food, medicinal liquor, and the skin is used for making bags and shoes. It is listed as Vulnerable as it is inferred to have suffered a population decline owing to high levels of trade in the species recorded in markets	likely
<i>Ptyas carinata</i>	LC	Keeled rat snake: Widespread, large, species that is harvested locally. There is no evidence that this species is intentionally traded internationally	unlikely

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
<i>Rhadinophis prasina</i>	LC	Green trinket snake: Widespread species that is collected for the international pet trade but not at levels that are thought to threaten wild populations	unlikely
<i>Rhynchophis boulengeri</i>	LC	Rhinoceros snake: The limited collection of this relatively scarce species for the international pet trade is not currently thought to threaten wild populations	maybe
CYLINDROPHIIDAE			
<i>Cylindrophis ruffus</i>	LC	Common pipe snake: Widespread, species that is subject to heavy local exploitation in one lake	unlikely
ELAPIDAE			
<i>Acanthophis rugosus</i>	LC	Rough-scaled Death Adder: Recently recorded in the international pet trade but it is not a threat	unlikely
<i>Bungarus candidus</i>	LC	Kraits: Traded widely in the region for use in rice wine, medicine and as food. <i>Bungarus slowinskii</i> is only known from a few specimens but has not been recorded from trade ³	unlikely
<i>Bungarus fasciatus</i>	LC		
<i>Bungarus flaviceps</i>	LC		
<i>Bungarus magnimaculatus</i>	LC		
<i>Bungarus multicinctus</i>	LC		
<i>Bungarus slowinskii</i>	VU		
<i>Bungarus wanghaotingi</i>	LC		
<i>Enhydrina schistosa</i>	LC	Beaked Sea Snake: Widespread species that is collected as a by-catch and although harvest levels are not considered to be threat across the range, over-exploitation may be a problem in some areas	maybe
<i>Hydrophis belcheri</i>	DD	Faint-banded Sea Snake: Poorly known species; the extent and impact of trawl fishing on wild populations is not well understood	maybe
<i>Hydrophis cyanocinctus</i>	LC	Blue-banded Sea Snake: Collected as a by-catch in trawl fisheries	unlikely
<i>Hydrophis lamberti</i>	LC	Lambert's Sea Snake: Collected as a by-catch in trawl fisheries and sold for skins and food. Current levels of exploitation are not thought to threaten this species	unlikely
<i>Hydrophis lapemoides</i>	LC	Arabian Gulf Sea Snake: Poorly known species that is occasionally caught in trawl fishing by-catches. Exploitation on wild populations is not currently considered to be a threat	unlikely
<i>Hydrophis pachycercos</i>	DD	Collected as a by-catch in trawl fisheries and sold for skins. Current levels of exploitation are not thought to threaten this	unlikely

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
		species	
<i>Hydrophis spiralis</i>	LC	Yellow Sea Snake: Collected as a by-catch in trawl fisheries but current levels of exploitation are not thought to threaten this species	unlikely
<i>Kerilia jerdoni</i>	LC	Jerdon's Sea Snake: Collected as a by-catch in trawl fisheries and sold for skins. Current levels of exploitation are not thought to threaten this species	unlikely
<i>Lapemis curtus</i>	LC	Spine-bellied Sea Snake: Collected as a by-catch in trawl fisheries and harvested directly for skins. Current levels of exploitation are thought to threaten this species in parts of its range because of observed declines in catches	maybe
<i>Laticauda colubrina</i>	LC	Yellow-lipped Sea Krait: Any international trade in these snakes is not thought to be a major threat	unlikely
<i>Laticauda semifasciata</i>	NT	Chinese Sea Snake: Collected as a by-catch in trawl fisheries and harvested directly for skins and smoked food. Recent levels of exploitation were thought to threaten this species in parts of its range because of observed declines in catches	maybe
<i>Thalassophina viperina</i>	LC	Viperine Sea Snake: Any international trade in these snakes is not thought to be a major threat	unlikely
HOMALOPSIDAE			
<i>Cerberus rynchops</i>	LC	Dog-faced Water Snake: This species used to be harvested high quantities for its skins but this is no longer the case and is not thought to represent a threat	unlikely
<i>Enhydris bocourti</i>	LC	Bocourt's Water Snake: Localised declines caused by over-exploitation threat wild populations in some areas but this is widespread species	maybe
<i>Enhydris chinensis</i>	LC	Chinese Rice Paddy Snake: Harvests for the international skin trade is causing declines but not at a rate fast enough to warrant threatened status	maybe
<i>Enhydris enhydris</i>	LC	Striped Water Snake: Localised declines caused by over-exploitation threaten wild populations in some areas but this is widespread species that is not globally threatened	unlikely
<i>Enhydris longicauda</i>	VU	Longheaded Water Snake: This species is harvested in high quantities to supply domestic crocodile farms	maybe
<i>Enhydris plumbea</i>	LC	Rice Paddy Snake: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Enhydris subtaeniata</i>	LC	Striped Water Snake: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
<i>Erpeton tentaculatum</i>	LC	Tentacled Snake: This species is harvested for mostly domestic trade but not at levels that appear to threaten wild populations	unlikely
<i>Homalopsis buccata</i>	LC	Puff-faced Water Snake: This species is harvested in high quantities to supply domestic and international markets and may be causing population declines	maybe
NATRICIDAE			
<i>Atretium schistosum</i>	LC	Olive Keel-backed Water Snake: Subject to high exploitation in the 1980s for the leather trade but no longer considered to be threatened by trade	unlikely
<i>Macropisthodon rudis</i>	LC	Red Keelback: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Natrix tessellata</i>	LC	Dice Snake: Collected for the international pet trade from some range states but not at levels high enough to threaten wild populations	unlikely
<i>Xenochrophis flavipunctatus</i>	LC	Yellow-spotted Keelback Water Snake: Harvested for its skins in high numbers which may threaten wild populations in some areas	maybe
<i>Xenochrophis melanozostus</i>	LC	Javan Keelback Water Snake: Harvested for its skins in high numbers which may threaten wild populations in some areas	maybe
<i>Xenochrophis vitattus</i>	LC	Striped Keelback Water Snake: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
PAREATIDAE			
<i>Aplopeltura boa</i>	LC	Blunthead Slug Snake: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Pareas carinatus</i>	LC	Keeled Slug-Eating Snake: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
PSEUDOXENODONTIDAE			
<i>Pseudoxenodon bambusicola</i>	LC	False Cobras: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Pseudoxenodon macrops</i>	LC		unlikely
VIPERIDAE			
<i>Azemiops feae</i>	LC	Fea's Viper: Concerns have been expressed about the impact of international trade on this species	maybe
<i>Calloselasma rhodostoma</i>	LC	Malayan Pit Viper: Recorded in international pet trade but the impact on wild populations is not considered a threat	unlikely

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
<i>Cryptelytrops albolabris</i>	LC	White-lipped Tree Viper: The snake is collected for use in food and traditional medicine (snake wine) in some parts of its range but this is not considered a significant threat	unlikely
<i>Cryptelytrops honsonensis</i>	VU	Hon Son Pit Viper: Limited distribution but apparently not currently threatened by trade	unlikely
<i>Cryptelytrops insularis</i>	LC	White-lipped Island Pit Viper: Recorded in international pet trade but does not appear to threaten wild populations	unlikely
<i>Cryptelytrops kanburiensis</i>	EN	Kanburi Pit Viper: Restricted range species threatened by illegal collection for the international pet trade	likely
<i>Cryptelytrops purpureomaculatus</i>	LC	Mangrove Pit Viper: Recorded in international pet trade but does not appear to threaten wild populations	unlikely
<i>Cryptelytrops rubeus</i>	VU	Ruby-eyed Green Viper: Limited range species subject to overexploitation for food and snake wine in some areas, although it is not clear if these products are traded internationally	maybe
<i>Daboia siamensis</i> (considered part of <i>Daboia russellii</i> by CITES)	LC	Eastern Russell's Viper: This snake is collected for skins and food which may threaten the species in some areas	maybe
<i>Gloydus monticola</i>	DD	Likiang Pit Viper: Recorded in international pet trade but the impact on wild populations is unknown	maybe
<i>Gloydus saxatilis</i>	LC	Rock Mamushi: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Ovophis convictus</i>	LC	Mountain Pit Vipers: Recorded in international pet trade but the impact on wild populations is not considered a threat	unlikely
<i>Ovophis makazayazaya</i>	LC		
<i>Ovophis monticola</i>	LC		
<i>Ovophis tonkinensis</i>	LC		
<i>Parias malcolmi</i>	NT	Kinabalu Green Pit Viper: The international pet trade is a potential threat to this species	maybe
<i>Parias sumatranus</i>	LC	Sumatra Pit Viper: Recorded in international pet trade but the impact on wild populations is not considered a threat	unlikely
<i>Popeia buniana</i>	EN	Pulau Tioman Pit Viper: Restricted to a small island and threatened by illegal collection for the international pet trade	likely
<i>Popeia fucata</i>	LC	Siamese Peninsula Pit Viper: Recorded in international pet trade but apparently does not threaten wild populations	unlikely
<i>Popeia nebularis</i>	VU	Cameron Highlands Pit Viper: Ongoing illegal collection for this restricted range species is a major threat	likely
<i>Protobothrops jerdonii</i>	LC	Yellow Speckled Lance-head: Recorded in international pet trade but does not appear to threaten wild populations	unlikely
<i>Protobothrops kaulbacki</i>	DD	Kaulback's Lance-headed pit viper: Poorly known species	maybe

Taxa		Description of Trade Type, Impact and Volume from The IUCN Red List of Threatened Species	Expert Opinion of the Impact of International Trade
		that may be threatened by international pet trade	
<i>Protobothrops mucrosquamatus</i>	LC	Brown Spotted Viper: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Protobothrops xiangchengensis</i>	LC	Szechwan Pit Viper: Recorded in international pet trade but not at levels high enough to threaten wild populations	unlikely
<i>Pseudocerastes persicus</i>	LC	Persian Horned Viper: A widespread species that is collected for its venom and international pet trade and over-harvesting is a threat in parts of its range. It resembles rare species	maybe
<i>Trimeresurus borneensis</i>	LC	Bornean Palm Pit Viper: These snakes are collected for international pet trade but it is not at levels that are considered a threat to wild populations	maybe
<i>Trimeresurus flavomaculatus</i>	LC	Philippine Pit Viper: These snakes are collected for international pet trade and but harvests are not considered a threat to wild populations	unlikely
<i>Trimeresurus mcgregori</i>	DD	Philippine Pit Viper: These snakes are collected for international pet trade and harvests may be a threat to wild populations	maybe
<i>Trimeresurus puniceus</i>	LC	Javanese Pit Viper: These snakes are collected for international pet trade and harvests may be a threat to wild populations in parts of its range	maybe
<i>Trimeresurus schultzei</i>	LC	Schultz's Pit Viper: These snakes are collected for international pet trade and harvests may be a threat to wild populations in parts of its range	maybe
<i>Tropidolaemus subannulatus</i>	LC	Green Pit Vipers: These snakes are collected for international pet trade but it is not at levels that are considered a threat to wild populations	unlikely
<i>Tropidolaemus wagleri</i>	LC		
<i>Vipera berus</i>	LC	Adder: This species is collected for international pet trade but not at levels that are considered a threat to wild populations	unlikely
<i>Viridovipera truongsonensis</i>	EN	Truong Son Pit Viper: Restricted range, threatened species that would potentially be threatened by trade if a demand developed	unlikely
XENOPELTIDAE			
<i>Xenodermus javanicus</i>	LC	Litter and Sunbeam Snakes: Semi-fossorial species that are recorded in international pet and skin trade but does not threaten wild populations	unlikely
<i>Xenopeltis hainanensis</i>	LC		
<i>Xenopeltis unicolor</i>	LC		