

**CITES CoP18
INFORMATION
DOCUMENT**

PROVING LEGALITY

THE TRADE IN ENDEMIC CARIBBEAN REPTILES

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Proving Legality: The Trade in Endemic Caribbean Reptiles

Abstract

The Caribbean region is highly biodiverse and has a large number of endemic reptile species, many of which are traded internationally – both legally and illegally. Around 6% of the 750 native reptiles are currently listed in CITES Appendix I or II.

A review of the CITES Trade Database and online adverts indicates that most reported trade is between non-range States, and that some of this trade is likely in smuggled specimens or frequently their offspring which have subsequently been produced in captivity. For some species, despite no trade from the wild reported in the CITES Trade Database, seizures indicate offtake from the wild continues. While known illegal offtake levels for some species may appear to be relatively low, any unregulated trade is of concern as many of these species are highly range-restricted and rare. This document aims to highlight the need for importing and (re-)exporting countries to ensure any international trade in Caribbean endemic reptiles is limited to specimens of legal origin. In addition, where there are concerns regarding false claims of captive-breeding, amendments to Resolution Conference 17.7 on *Review of trade in animal specimens reported as produced in captivity* are suggested.

Legal acquisition findings (LAFs) are a fundamental prerequisite of trade that is enshrined in the CITES Convention text. A robust LAF is a powerful tool as it should mean that permits are not issued for international trade if the specimen or the breeding stock were obtained illegally, which appears to be the case for some Caribbean endemic reptiles. Although a vital part of the implementation of CITES, LAFs have received relatively little attention. For example, regarding another essential component of CITES: Non-detriment Findings (NDFs), a Resolution has been adopted (Resolution Conference 16.7 (Rev. CoP17)) and multiple guidance documents developed to help Parties conduct NDFs. However, this has changed recently, as Decisions adopted at CoP17 led to the Standing Committee considering the issue and an international workshop. This resulted in a draft Resolution (which includes non-binding guidance to Parties) being proposed for CoP18. This is a welcome development as a CITES Resolution to strengthen LAFs would reduce opportunities for international trade in illegally harvested and smuggled specimens or their offspring if adopted at CoP18 and fully implemented by Parties.

In addition, where there are concerns that specimens are being reported as captive-bred but do not meet the definition provided in Resolution Conference 10.16 (Rev.) as the breeding stock was not established in accordance with the provision of CITES, amendments to selection criterion vi used for Resolution Conference 17.7 would help ensure endemic species with small populations, such as the Union Island Gecko proposed for listing in CITES Appendix I at CoP18, do not slip through the net of the review selection process. An amendment to criterion v would also ensure that exports of Appendix-I listed species for commercial purposes from countries with no registered breeding facilities, which are mis-declared as “C” rather than “D”, are not excluded from selection.

Introduction

The Caribbean region¹ is highly biodiverse thanks largely to its geography and climate: in total, 97% of the 750+ reptile species found in the Caribbean are endemic (Daltry, 2018). However, the

¹ Defined in this document as the Greater Antilles, the Lesser Antilles and the Bahamas Bank Assemblage

Caribbean's wildlife is under threat. In total, 464 reptile species native to the Caribbean have been assessed by the IUCN Red List, although some "need updating" having been published some years ago. More assessments have taken place and are awaiting publication. Of the assessed 464, nearly 40% are considered to be globally Endangered (91), Critically Endangered (80) or Extinct (nine) (IUCN Red List, 2019). Major threats include invasive species, habitat destruction and degradation, climate change and over-exploitation (CEPF, 2010). High levels of endemism and the rarity of many species makes them attractive in the hobbyist trade, which for some species may be a threat. For example, the *Cyclura* genus of iguanas native to the West Indies were up-listed to Appendix I in 1981 due to concerns that even limited trade would be detrimental to the small wild populations (Prop. 65 CoP 3).

Method

In order to assess the nature of the reported trade, an analysis was undertaken of import data in the CITES Trade Database of all CITES-listed Caribbean endemic reptiles species for the years 2013-2017. Only live individuals were considered. The number of eggs exported during this period appears quite limited and is therefore excluded from this analyses: 100 Leatherback Turtle *Dermochelys coriacea* eggs exported from Saint Kitts and Nevis for scientific purposes, and 120 Green Iguana *Iguana iguana* eggs exported from the Cayman Islands that were subsequently seized/confiscated.

Only direct exports are considered in this document (i.e. where the origin country is blank). A rapid analyses of re-exports from 2013-2017 totalled 46 live individuals which were reported as originating from non-range States in Europe and North America.

As the majority of global exports are reported by non-range States (excluding exports of 20 and eight live specimens reported by Dominican Republic and Cuba respectively), this study does not focus on the impact of legal trade on wild populations. Therefore, and because, the total quantity reported by importers was higher (432) than exporters (274), importer values are used throughout this document.

Reptile species endemic to one or more Caribbean range States were identified using distribution information held on the Species+ website, as these range States are derived from relevant CITES Standard Taxonomic References and therefore are considered the "official" range States under CITES. However, it is known that for some species, other reliable sources which may be based on more recent research² provide a different selection of range States.

In order to characterise the illegal trade, a rapid review of websites and platforms known to sell live reptiles was undertaken in June 2019. These included www.facebook.com, <http://www.faunaclassifieds.com/>, www.terrastik.com and <http://www.instagram.com>. Information on seizures was taken from TRAFFIC's Wildlife Information Trade System³.

Two case studies are provided to highlight the issues raised in this document. These taxa were selected as they are known to be in the international hobbyist trade, are offered for sale online, exports from range States are limited, and there are concerns that much of the trade is in illegally obtained specimens or their offspring. One case study, Green Iguana *Iguana iguana* was also chosen to draw attention to the need for CITES Standard References to keep pace with recent scientific taxonomic research.

² E.g. www.caribherp.org

³ TRAFFIC collate information from open sources to determine species and commodities being illegally traded globally, and to assess the trade routes used.

Results

Reported Trade

Of the approximately 900 reptile taxa listed in the CITES Appendices, 5% are Caribbean endemics listed in Appendix I (12) or II (33) (Species+, 2019). A relatively small proportion (around 6%⁴) of the region's native reptiles are currently listed in the Appendices.

According to reports by importing countries, in the past five years, levels of live exports of Caribbean reptile species were low at 432 live individuals comprising of 13 different species.

According to import data, two species accounted for the majority of trade (Figure 1):

- Cuban Tree Boa *Epicrates angulifer*
 - o Endemic to Bahamas⁵ and Cuba
 - o Appendix II (1977)
 - o 204 live individuals
- Grenada Tree Boa *Corallus grenadensis*
 - o Endemic to Grenada and Saint Vincent and the Grenadines
 - o Appendix II (1977)
 - o 106 live individuals

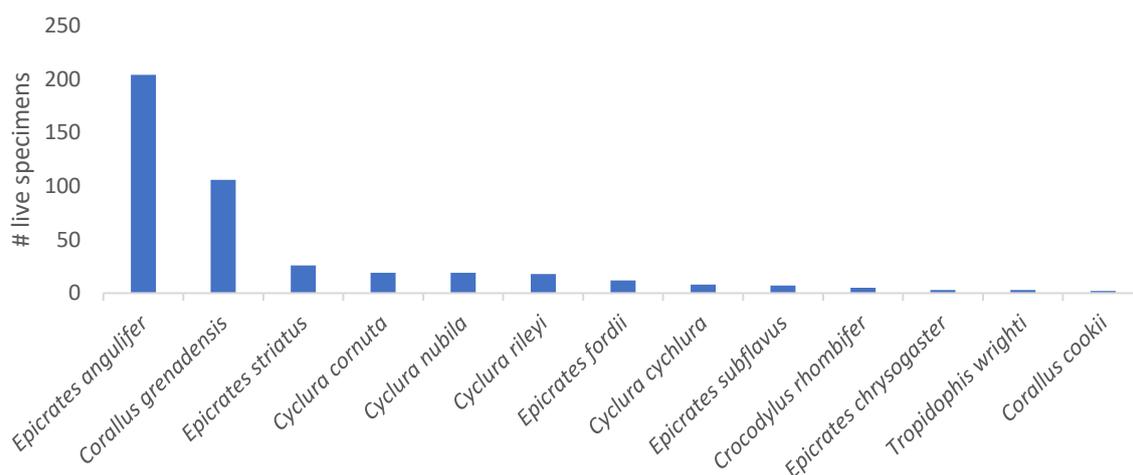


Figure 1 Species of Caribbean endemic reptiles imported globally (2013-2017) according to importing Parties. *Data source: CITES Trade Database. Does not include re-exports.*

Nearly all trade was reported as being in captive-bred individuals (391 individuals), with the remainder reported as captive-born (24), seized/confiscated (12) or unknown (five). No wild trade was reported. The majority of trade was reported as being for commercial purposes (358) or zoos (39) (Figure 2).

Resolution Conference 12.10 (Rev. CoP15) states that the exemption of Article VII, para 4 [*specimens of Appendix-I species that are bred in captivity for commercial purposes be deemed as specimens of Appendix-II species*] should be implemented through the registration by the Secretariat of breeding operations. No such registered Appendix-I facilities exist in the Caribbean, or elsewhere, with the exception noted below. Imports of captive-bred Appendix-I *Cyclura cornuta* for commercial purposes

⁴ This percentage may not be accurate due to differences in taxonomic standards used by CITES and others

⁵ Bahamas is not considered a range State by other sources including the IUCN Red List assessment, who in addition consider the species to belong to the *Chilabothrus* genus (Day & Tolson, 1996)

were reported from Spain (nine) and Germany (one). The Czech Republic also reported exporting two. However, currently the only operation recorded on the CITES website as being registered as breeding Caribbean endemic reptiles is one in Cuba for *Crocodylus rhombifer* (CITES, 2019).

The above trade in 10 Appendix-I listed *Cyclura cornuta* for commercial purposes was reported using source code “C”. According to the guidance developed by IUCN (AC28 Doc. 12 Annex 1) commercial trade in Appendix-I specimens should be reported with the source code “D” providing the specimen was bred at a CITES-registered breeding operation, or if it was not bred at a registered operation the export should not proceed. One of the criteria developed to select species for inclusion in Resolution 17.7 on *Review of trade in animal specimens reported as produced in captivity* is incorrect application of source codes (Criterion v – see AC29 Doc. 14.1 Annex). This criterion identifies cases where specimens reported using source code “D” have taken place but no facilities are registered in the country of export. This criterion would not therefore select cases such as the 10 *Cyclura cornuta* which have incorrectly used source code “C”.

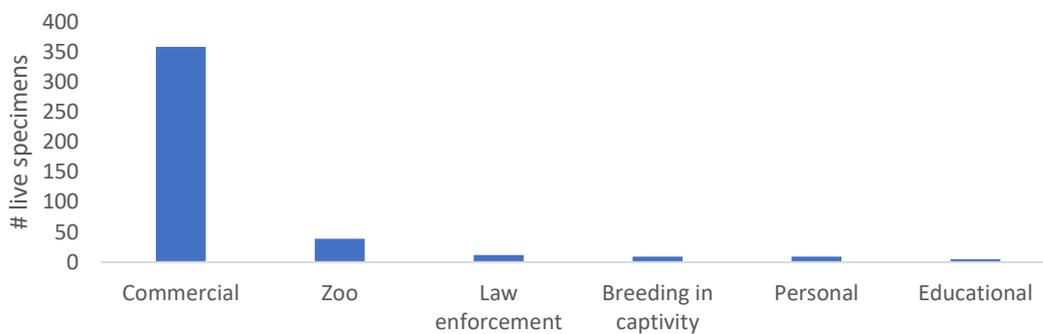


Figure 2 Purpose of global imports of Caribbean endemic reptiles (2013-2017) according to importing Parties. *Data source: CITES Trade Database. Does not include re-exports.*

The majority of specimens were exported from countries outside of the Caribbean, with European countries being the largest exporters (Figure 3). The only Caribbean exporter according to import data was Sint Maarten, an autonomous country within the Kingdom of the Netherlands (Ministry of Foreign Affairs, 2015).

There was some additional trade reported by range States, Cuba reported exporting eight live specimens (*Cyclura nubila* and *Crocodylus rhombifer*) to Democratic People's Republic of Korea (non-CITES Party) and Dominican Republic reported exporting 20 *Cyclura cornuta* to Spain which did not report this trade. These exports reported by range States were all reported as being captive-bred and using purpose code “Z” (zoo).

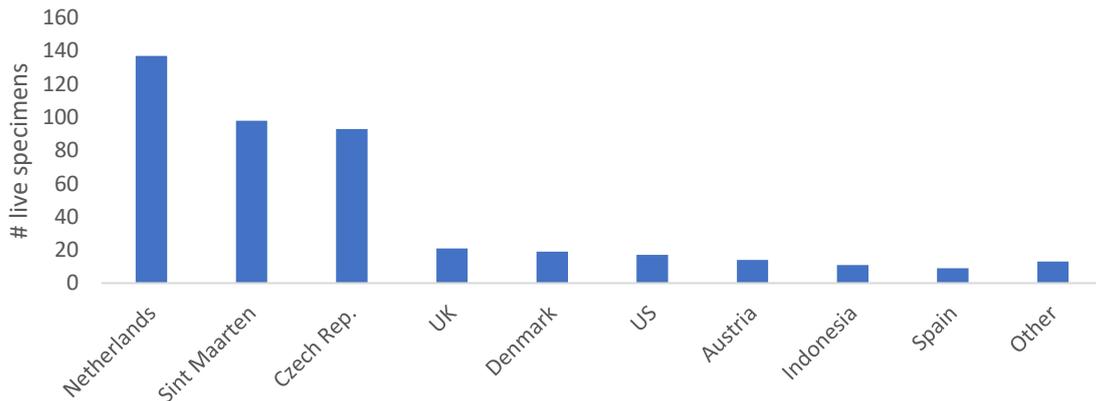


Figure 3 Top 10 exporters of Caribbean endemic reptiles imported (2013-2017) according to importing Parties. *Data source: CITES Trade Database Does not include re-exports.*

Illegal Trade

While the reported (legal) trade in most CITES-listed Caribbean reptiles is limited, there is an illegal trade in a number of species. Due to the nature of illegal trade it is not possible to quantify the size of the trade, but as some individual seizures involve more specimens than the reported trade (Table 1) it suggests it could be significant for some species.

Online adverts outside range States for CITES-listed Caribbean reptiles can be readily found on websites such as www.facebook.com, <http://www.faunaclassifieds.com/>, www.terrarium.com and <http://www.instagram.com>. Where no legal exports have taken place from range States, either to be traded themselves or to produce offspring that can subsequently be traded, any such trade is presumably of illegal origin. Of concern are those adverts that claim to have CITES documentation, as it is not clear how the relevant Management Authority would have been able to determine legal acquisition. Examples of these can be found in Case Study 1 and 2.

Table 1 Examples of seizures of CITES-listed Caribbean endemic reptiles

Species	Common Name (Species+)	Range (Species+)	Status	Live direct exports reported by importers (2013-2017)	Example seizures (representing <u>minimum</u> size of illegal trade)
<i>Cyclura rileyi</i>	San Salvador Ground Iguana	Bahamas	Appendix I (1981) <i>(originally listed in Appendix II in 1977)</i> Endangered (1996) <i>(This seizure involved the subspecies C. r. cristata (J. Daltry, pers. comms., July 2019) which is considered Critically Endangered (1996)). The two other subspecies are also Endangered / Critically Endangered</i>	18 12 were the specimens from the 2014 seizure being repatriated from the UK to the Bahamas, 6 were exported from Austria	13 In 2014 two women were arrested at Heathrow Airport, UK having arrived from the Bahamas and due to fly to Germany. Thirteen <i>Cyclura rileyi</i> were found hidden in their suitcases, one of which had died. Both women were sentenced to 12 months in prison ⁶ .
<i>Cyclura cornuta</i>	Rhinoceros Iguana Hispaniolan Rhinoceros Iguana (Caribherp.org) <i>“Rhinoceros Iguana” is a common name that refers to three different species (J. Daltry, pers. comms., July 2019))</i>	Dominican Republic, Haiti, US Minor Outlying Islands* <i>*The US Minor Outlying Islands are no longer considered a range State of C. cornuta as the subspecies present there was elevated to a full species (Pasachnik, & Carreras De León, 2019)</i>	Appendix I (1981) <i>(originally listed in Appendix II in 1977)</i> Endangered (2018)	19 European countries were the main importers and exporters (11), although some non-European countries (Malaysia, Thailand, Qatar) also reported imports.	2 In March 2019, 35 live reptiles and amphibians were seized at Chennai International Airport, India from a student arriving on a flight from Thailand. These included two <i>Cyclura cornuta</i> , as well as three additional <i>Cyclura</i> spp. The student was detained ⁷ .

⁶ <https://www.cites.org/eng/two-women-sentenced-for-smuggling-endangered-iguanas>

⁷ <https://timesofindia.indiatimes.com/city/chennai/african-horned-pitviper-other-reptiles-seized-from-passenger-at-chennai-airport/articleshow/68566908.cms>

<i>Cyclura nubila</i>	Cuban Iguana	Cayman Islands (UK), Cuba, Puerto Rico (introduced)	Appendix I (1981) (originally listed in <i>Appendix II in 1977</i>) Vulnerable (1996)	19 (Japan was the main importer (18) all of which were exported from the Czech Republic) Cuba reported exporting 4 but these were not reported by the importer (Democratic People's Republic Of Korea – which is not a CITES Party)	2 In 2016, two individuals were stopped when they arrived in Canada on a flight from Cuba. They were found to be smuggling two <i>Cyclura nubila</i> ⁸ . One of the men was sentenced to serve two three-month jail terms ⁹ .
<i>Tropidophis caymanensis</i>	Cayman Islands Dwarf Boa	Cayman Islands (UK)	Appendix II (1977) Critically Endangered (2015)	0 (no live exports are reported in the CITES Trade Database since the family was listed in 1977)	4 In 2000, three German men were arrested in the Cayman Islands in possession of over 1,000 live animals and plants, including four <i>Tropidophis caymanensis</i> . These were apparently intended for European collectors. All three men were convicted, fined, and deported, after spending a couple of months in a prison on Grand Cayman (Echternacht <i>et al.</i> , 2011).

⁸ <https://www.siskinds.com/3-month-jail-time-illegally-trafficking-iguanas/>

⁹ <https://www.newswire.ca/news-releases/ontario-man-sentenced-to-jail-for-illegal-importation-of-endangered-reptiles-627298803.html>

Case Study 1

Green Iguana Island Morphs

CITES Appendix II

The Green Iguana *Iguana iguana* has a wide distribution across South and Central America, as well as a number of Caribbean islands (Bock *et al.*, 2018). Geographic isolation of certain Caribbean islands has meant some island populations evolved to be distinct morphs or even distinct taxa, which can be particularly attractive to hobbyists. Elevation of island morphs to subspecies or full species may increase demand further. These naturally occurring morphs are different to the colour morphs that arise in captivity through selective breeding conducted by breeders.

Online adverts for a variety of island morphs can be found, particularly in the USA but also Malaysia and Japan. Many adverts state that the specimens are captive-bred and come with CITES documentation, despite no live specimens having been legally exported from the only range State of that specific island morph since Green Iguanas were listed in Appendix II in 1977. It seems that these adverts are either offering the captive-bred offspring of smuggled iguanas, or the smuggled individuals themselves, or the seller is falsely mis-declaring the specimen to be a specific island morph to attract buyers. Two such morphs, the Grenadines Pink Rhino Iguana and the Saint Lucia Iguana are discussed below.

Grenadines Pink Rhino Iguana

The Grenadines Pink Rhino Iguana is endemic to the Grenadines, with a range encompassing Palm Island, Tobago Cays, Union Island and other parts of the Grenadines and possibly Grenada (J. Daltry, *pers. comms.*, July 2019). It was considered an island morph until recent taxonomic research elevated it to a subspecies of the Green Iguana (Breuil *et al.*, 2019).

No trade of live *Iguana iguana* from St Vincent and the Grenadines has been reported in the CITES Trade Database since it was listed in Appendix II in 1977. However, adverts for “captive-bred Palm Island Iguanas” with CITES documentation can readily be found online, including from sellers based in the USA (1) and Malaysia (2). One study noted that iguanas were being poached from various islands in St. Vincent and the Grenadines by locals and then smuggled off the islands by foreigners on yachts (Noseworthy, 2017). One person advertising a number of these different morphs for sale has previously been convicted for illegally importing tortoises into the USA¹.

(1)

Palm Island Iguanas

THESE ARE THE ONLY PAIR FOR SALE IN THE US

They are morphs of Green iguana, (*Iguana iguana*) endemic to the Palm island. Check out the pictures of what these guys will grow up to be. The pair in my had is the exact pair for sale.

All CB hatchlings will be PIT tagged.

They are stunning and unusual looking Iguanas.

Same care and feeding as all Green Iguanas.

They are captive breed on a different island and imported, they come with cleared CITES papers and 3-177 forms.



(2)



19 August 2018 · 🌐



Offering rare captive bred baby Palm Island Iguanas with CITES paperworks, pm if interested thanks! #rareiguanas #iguanasofinstagram #rarereptiles



👍 🤔 ❤️ 42

1 comment 3 shares

Saint Lucia Iguana

The Saint Lucia Iguana has recently been described as a distinct subspecies *Iguana iguana sanctaluciae* (Breuil *et al.*, 2019), but has long been recognised by the Government of Saint Lucia as a “distinct and fully protected species”. A 2009 estimate placed the population of Saint Lucia at fewer than 1,000 mature individuals in a total area of 2.5km² (Daltry, 2009).

Saint Lucia has never reported exporting any live *Iguana* spp. However, posts for specimens described as gravid Saint Lucia Iguanas in captivity in the USA can be found (1) as well as captive-bred young for sale in Malaysia (“with CITES paperwork”).

(1)

20 June · 🌐

GRAVID!!!, St. Lucia Iguana. 😊



193 12 comments 23 shares

Like Share

(2)

19 August 2018 · 🌐

Offering rare captive bred baby St. Lucia Iguanas with CITES paperworks, pm if interested thanks! #rareiguanas #iguanasofinstagram #rarereptiles



57 7 comments 4 shares

Case Study 2

Bahamas Rock Iguana

CITES Appendix I

The Northern Bahamian Rock Iguana *Cyclura cyclura* is native to the Bahamas, with three recognised subspecies:

- ***C.c. cyclura*** (found on Andros Island)
Endangered (2004). Total population less than 5,000 individuals (Knapp *et al.*, 2004a)
- ***C. c. figginsi*** (southern and central Exuma Islands chain)
Critically Endangered (2004). Total population less than 1,300 individuals (Knapp *et al.*, 2004b)
- ***C. c. inornata*** (northern Exuma Islands chain)
Critically Endangered (2018). Total number of mature individuals estimated at less than 600 (Iverson *et al.*, 2019)

No live exports have been reported from the Bahamas since the genus was listed in the Appendices in 1977 (the genus was uplisted to Appendix I in 1981). According to one expert, no exports have been permitted since at least 1968 when national legislation was changed (J. Iverson, *pers. comm.*, April 2019). Despite this, online posts can be found of reportedly captive-bred individuals, for example by reptile breeders based in Austria (1) and the USA (2). The US Management Authority has previously expressed concern to the Bahamian Management Authority regarding the Austrian breeder identified in (1) who wished to export live *Cyclura* spp. to the USA that were allegedly the offspring of iguanas held in a zoo in Germany. Germany were said to have confirmed to the Bahamian Government they mistakenly cleared an import of *Cyclura* iguanas from the Bahamas a number of years prior to this (Anon, *pers. comms.*, July 2019). The Bahamian Management Authority confirmed that they had never exported any live *Cyclura* spp. to the EU for any purpose and stated that the iguanas could not be of legal origin (SC65 Inf. 4, 2014).

Online posts of this nature are not limited to the Northern Bahamian Rock Iguana. Posts can be found for other *Cyclura* species including the San Salvador Ground Iguana *Cyclura rileyi*, also endemic to the Bahamas, which has not reported any live exports (3).

(1)

13 April · 🌐

Cyclura cyclura figginsi, Exuma Rock iguana started the cyclura breeding season 2019 last weekend!



👍👍👍 183

4 comments 10 shares

(2)

2 February · 🌐

Exuma iguana, Cyclura cyclura figginsi. This CB2018 female is growing quickly



👍👍👍 48

1 comment 12 shares

👍 Like

💬 Comment

🔗 Share

(3)

June 2013 · 🌐

👍 Like Page

Looks gravid!
Cyclura rileyi rileyi



👍 76

6 comments 2 shares

👍 Like

💬 Comment

🔗 Share

👤 A Dream!
Like · Reply · 8y

👤 Wow, that would be great Juergen, how are last years babies doing?
Like · Reply · 8y

👤 Looking great!
Like · Reply · 8y

👤 Nice!!
Like · Reply · 8y

👤 Kamiel, they are doing great, and a re really relaxed, I will post a pic.
Like · Reply · 8y

Trade in Non-CITES Listed Species

High levels of endemism and the rarity of many Caribbean species makes them attractive in the hobbyist trade, but this is not limited to those already listed in the CITES Appendices. There also appears to be trade in a number of non-listed species as evidenced by:

- A recent study of online trade of 106 Lesser Antillean reptile species found evidence for online trade in 39% of species, predominantly in the USA, Europe and Japan (Noseworthy, 2017).
- Saint Vincent and the Grenadines have proposed the endemic Union Island Gecko *Gonatodes daudini* for inclusion in Appendix I at CoP18. Although no export permits have been issued, smuggling is occurring and live specimens can be found for sale in Europe and the USA (CoP18 Prop. 29).
- A report identifying five non-listed species known or likely to be in international trade included Warren's Galliwasp *Celestus warreni* (native to Dominican Republic and Haiti) (UNEP-WCMC, 2009).

Legal Acquisition Findings

The CITES Trade Database contains records of Caribbean endemic reptile species being traded predominantly by non-range States. However, for some of these species the range States have not reported exporting any live specimens from which a founder stock could be developed. In addition to being Party to CITES, most range States have national legislation in place to prevent wild animals from being exported without authorisation (J. Daltry, *pers. Comms.*, July 2019).

It is the shared responsibility of both (re-)exporting and importing Parties to ensure such trade is legal:

- The Convention Text states that the Management Authority of a State of export should only grant an export permit if they are satisfied that the specimen was not obtained in contravention of the laws of that State (a so called "legal acquisition finding"). Similarly, the Management Authority of the State of re-export should be satisfied that the specimen was imported in accordance with the provisions of the Convention before issuing a re-export certificate.
- Resolution Conf. 12.3 (Rev. CoP17) on *Permits and certificates* recommends that Parties not authorise the import of any specimen if they have reason to believe that it was not legally acquired in the country of origin and that no export permit or re-export certificate be issued for a specimen known to have been acquired illegally, even if it has been imported in accordance with the national legislation unless the specimen has previously been confiscated.
- Resolution Conf. 10.16 (Rev.) on *Specimens of animal species bred in captivity* decides that the term "bred in captivity" shall only refer to specimens if the breeding stock was established in accordance with the provisions of the Convention and relevant national laws.

One of the criteria developed to select species for inclusion in Resolution 17.7 on *Review of trade in animal specimens reported as produced in captivity* is legal acquisition (Criterion vi – see AC29 Doc. 14.1 Annex). This criterion is met if exports that were reported from non-range States during the most recent three years exceeded a threshold of 1,000 units.

There are legitimate reasons why there may be no evidence of the import of founder stock, for example:

- Founder stock were imported either prior to CITES coming into force, the species being listed in the Appendices, or accession of the relevant Parties to CITES
- Missing annual reports
- Nomenclature changes may have meant the specimens were initially imported under a different name

A legal acquisition finding should be able to determine if any of the reasons above explain why no imports have been reported.

While legal acquisition findings (LAFs) are a fundamental prerequisite of trade that is enshrined in the CITES Convention text, they have received relatively little attention. However, this is changing: a suite of Decisions adopted in 2016 at CoP17 (Decisions 17.65-17.68) led to the Standing Committee considering the issue and an international workshop being held in Geneva in 2018. Based on this progress, the Standing Committee drafted a resolution (which includes non-binding guidance to Parties) and proposed it for adoption at CoP18 (CoP18 Doc. 39 Annex 1). This draft resolution recommends that the determination of whether a specimen was obtained legally should take into account the “whole series of actions through which the specimen is brought from its source into the possession of an exporter”. An Annex to the draft resolution provides non-binding practical steps for the verification of legal acquisition, including that the Management Authority review information on the entire chain of custody back to the source of the specimen. Such information may include records demonstrating that the specimen or parental stock was removed from the wild in accordance with relevant laws.

If adopted and implemented fully by Parties, this draft resolution and guidance proposed in CoP18 Doc. 39 Annex 1 should reduce opportunities for future trade in illegally obtained specimens, or their offspring being fraudulently “laundered” into the legal trade and help preserve the integrity of the CITES permitting process. If traders apply for an export permit then a legal acquisition finding should be able to determine that the specimens or their parental stock are of legal origin or the permit be refused if necessary.

Discussion

This document highlights the importance of robust LAFs to ensure trade in CITES-listed specimens is legal and transparent. To date there has been very little guidance provided to CITES Parties on how to conduct LAFs, but this has changed with the proposed draft resolution on legal acquisition findings and accompanying guidance in CoP18 Doc. 39 Annex 1.

It is also clear that trade in some specimens reported as captive-bred would not meet the definition of being bred in captivity as outlined in Resolution Conference 10.16 (Rev.) and would warrant further investigation. One avenue for this is through Resolution Conf. 17.7 on *Review of trade in animal specimens reported as produced in captivity*. Currently this process is funded on an ad hoc basis, but by agreeing a sustainable funding source such as the CITES Trust Fund this would ensure that this essential mechanism for evaluating and encouraging CITES compliance is undertaken on a regular basis, which should ultimately reduce the opportunities for trade in mis-declared specimens.

This document also highlights the need for importing and re-exporting Parties to contact range States for verification of origin of the legality of specimens or their offspring if the original CITES export documents cannot be verified when making an LAF. Financial and other support to range States would also help reduce opportunities for reptiles to be illegally harvested and smuggled to other countries.

Based on the popularity of Caribbean endemic reptiles in the international trade and their often limited ranges or rarity, some additional species may warrant being listed in the Appendices.

This document highlights that there is some trade in Appendix-I listed species for commercial purposes, but no registered breeding operations are currently published on the CITES website.

The Standing Committee has proposed a draft decision to CoP18 directing the Animals Committee to review the provisions of Resolution Conf. 17.7 and make any recommendations for improvements to the Standing Committee (CoP18 Doc. 58 Annex 1). The results from this analyses suggest some changes to the selection criteria used for Resolution Conf. 17.7 may be warranted:

- The selection criterion vi) on legal acquisition currently uses an export threshold of 1,000 units over three years (AC29 Doc. 14.1). The Animals Committee may wish to consider adding an additional lower threshold for species assessed as Critically Endangered or Endangered by IUCN or endemic, as species with small populations or limited ranges may be vulnerable to even low levels of illegal offtake. The quantity of specimens reported as seized in Parties' Annual Illegal Trade Reports, Europe Trade in Wildlife Information eXchange (EU-TWIX) or other sources could also be factored in to provide a better understanding of the full scale of trade.
- Criterion v on incorrect application of source codes is used to select species for inclusion in Resolution Conference 17.7 and currently only selects species reported using source code "D". The Animals Committee may wish to consider expanding this to include source code "C" also, as there are examples of exports of Appendix-I species for commercial purposes from countries that have no CITES-registered breeding operations being reported with source code "C".

It may be useful to include some Caribbean reptile species in the Review under Resolution Conference 17.7 at a future Animals Committee meeting. Trade from non-range States of specimens declared as produced in captivity with no evidence of lawful acquisition of parental breeding stock (i.e. no recorded imports) is one of the criteria to identify species-country combinations for review (criterion vi – although see recommendation above), and this is the case for several Caribbean species.

While Resolution Conf. 17.7 has been a major step forward in addressing false claims of captive-breeding, reports such as this one are still vital to support this work and provide additional evidence. This evidence is of most use when shared, in particular with the Animals Committee and the Secretariat.

Ongoing research strongly indicates that the taxonomy of the Green Iguana *Iguana iguana* may need to be revised to include additional species or subspecies endemic to the Caribbean islands. Some subspecies have been elevated to full species and therefore the distribution data held on Species+ may be out of date. The current CITES Standard Taxonomic Reference for iguanas dates from 2004 (Hollingsworth, 2004) and therefore it would be helpful to investigate if an updated or new reference exists that reflects current thinking on taxonomy, particularly regarding the status of island morphs. The IUCN Iguana Specialist Group - Iguana Taxonomy Working Group may be a useful resource to assist with this. If the taxonomic status of any island morphs is elevated to subspecies (or even species) it is essential that CITES nomenclature reflects this to ensure that Parties are accurately reporting trade. If required, there could be the development of an identification guide for iguanas in trade in the future. Other taxa such as boas may also warrant consideration for new or updated CITES Standard Taxonomic References.

Having access to new IUCN Red List assessments will ensure CITES Parties and others have the most up to date information on status, threats and taxonomy to inform their decisions, including on legal acquisition findings and selection for inclusion in Resolution 17.7. Some species have not been assessed at all, or not in the past twenty years, or have been assessed but these assessments are not yet published on the Red List website.

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References

- AC28 Doc. 12 (2015). Application of CITES source codes – Key 1.
<https://cites.org/sites/default/files/eng/com/ac/28/E-AC28-12-Annex1.pdf>
- AC29 Doc. 14.1 Annex (2017) *Selection of species for inclusion in the Review of trade in animal specimens reported as produced in captivity following CoP17* CITES Project No. A-498.
<https://cites.org/sites/default/files/eng/com/ac/29/E-AC29-14-01.pdf>.
- Bock, B., Malone, CL, Knapp, C., Aparicio, J., Avila-Pires, T.C.S., Cacciali, P., Caicedo, J.R., Chaves, G., Cisneros-Heredia, D.F., Gutiérrez-Cárdenas, P., Lamar, W., Moravec, J., Perez, P., Porras, L.W., Rivas, G., Scott, N., Solórzano, A. & Sunyer, J. (2018) *Iguana iguana*. The IUCN Red List of Threatened Species 2018.
- Breuil, M., Vuillaume, B., Schikorski, D., Krauss, U., Morton, M.N., Haynes, P., Daltry, J.C., Corry, E., Gaymes, G., Gaymes, J., Bech, N., Jelic, M. & Grandjean, F. (2019) A story of nasal horns: two new subspecies of *Iguana Laurenti*, 1768 (Squamata, Iguanidae) in Saint Lucia, St Vincent & the Grenadines, and Grenada (southern Lesser Antilles). *Zootaxa*, 4608, 201–232.
- CEPF (2010) Ecosystem Profile - The Caribbean Islands Biodiversity Hotspot. Available from
https://www.cepf.net/sites/default/files/final_caribbean_ep.pdf
- CITES (2019) List of Species. Available from
<https://www.cites.org/eng/common/reg/cb/species.html>.
- CoP18 Doc 39. Annex 1. (2019) Draft Resolution legal acquisition findings. Available from
<https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-039.pdf>
- CoP18 Doc. 58. Annex 1. (2019) Implementation of Resolution Conf. 17.7 on Review of trade in animal specimens reported as produced in captivity. Available from
<https://cites.org/sites/default/files/eng/cop/18/doc/E-CoP18-058.pdf>
- CoP18 Prop. 29 (2019) Consideration of proposals of amendment of appendices I and II.
https://cites.org/sites/default/files/eng/cop/18/prop/060319/E-CoP18-Prop_draft-Gonatodes-daudini.pdf
- Daltry, J.C. (2009) *The status and management of Saint Lucia's forest reptiles and amphibians*. Technical Report No. 2 to the National Forest Demarcation and Bio-Physical Resource Inventory Project, FCG International Ltd, Helsinki, Finland.
- Daltry, J.C. (2018) Caribbean islands—Islas del Caribe. In *Islands—Islas* (eds N.D Holmes, O. Langrand, R.A. Mittermeier, A.B. Rylands, T. Brooks, D.R. Spatz, J.C. Russell, W. Sechrest & F. Mendez-Sanchez). pp. 177 - 189. Earth in Focus Inc, Qualicum Beach, Canada
- Day, M. & Tolson, P. (1996) *Chilabothrus angulifer*. The IUCN Red List of Threatened Species 1996.
- Echternacht, A.C., Burton, F.J. & Blumenthal, J.M. (2011). The amphibians and reptiles of the Cayman Islands: Conservation issues in the face of invasions. In: A. Hailey, B.S. Wilson and J.A.

Horrocks (eds), Conservation of Caribbean Island Herpetofaunas, Vol. 2. Regional Accounts of the West Indies, pp. 440. Brill, Leiden, Netherlands.

IUCN (2019) The IUCN Red List of Threatened Species. <https://www.iucnredlist.org/>

Iverson, J., Grant, T.D. & Buckner, S. (2019) *Cyclura cyclura* ssp. *inornata*. The IUCN Red List of Threatened Species 2019.

Hollingsworth, B.D. (2004) *The evolution of iguanas. Iguanas - biology and conservation*. Alberts, A. C. et al., (eds.) University of California Press. London.

Knapp, C.R., Iverson, J.B. & Buckner, S. (2004) *Cyclura cyclura*. The IUCN Red List of Threatened Species 2004.

Knapp, C.R. & Buckner, S.D. (2004a) *Cyclura cyclura* ssp. *cyclura*. The IUCN Red List of Threatened Species 2004.

Knapp, C.R. & Buckner, S.D. (2004b) *Cyclura cyclura* ssp. *figginsi*. The IUCN Red List of Threatened Species 2004.

Ministry of Foreign Affairs (2015). Kingdom of the Netherlands: One Kingdom – Four Countries; European and Caribbean.

<https://www.government.nl/binaries/government/documents/leaflets/2015/06/05/kingdom-of-the-netherlands-one-kingdom-four-countries-european-and-caribbean/the-kingdom-of-the-netherlands-4-pager-eng.pdf>

Noseworthy, J. (2017) *Cold-blooded conflict: tackling the illegal trade in endemic Caribbean island reptiles*. Unpublished Masters thesis, Masters of Philosophy in Conservation Leadership, University of Cambridge.

Pasachnik, S.A. & Carreras De León, R. 2019. *Cyclura cornuta*. The IUCN Red List of Threatened Species 2019.

SC65 Inf 4. (2014) Report on the smuggling of Bahamian Rock Iguanas
<https://cites.org/sites/default/files/eng/com/sc/65/Inf/E-SC65-Inf-04.pdf>

Species+ (2019) Download Species Lists. <https://www.speciesplus.net/>

UNEP-WCMC (2009) Review of non-CITES reptiles that are known or likely to be in international trade (five additional species). A Report to the European Commission. UNEP-WCMC, Cambridge.