

TRADE IN LIVE EXOTIC AMPHIBIANS

Need for a comprehensive international, European and national policy

Amphibians are the most threatened vertebrates on earth, with an estimated 40% at risk of extinction according to the 2019 IUCN assessment.

Origin of the decline and the role of trade

Amphibians are a group of vertebrates that includes a large variety of species present worldwide (~8100 species recognised by the Scientific Community):

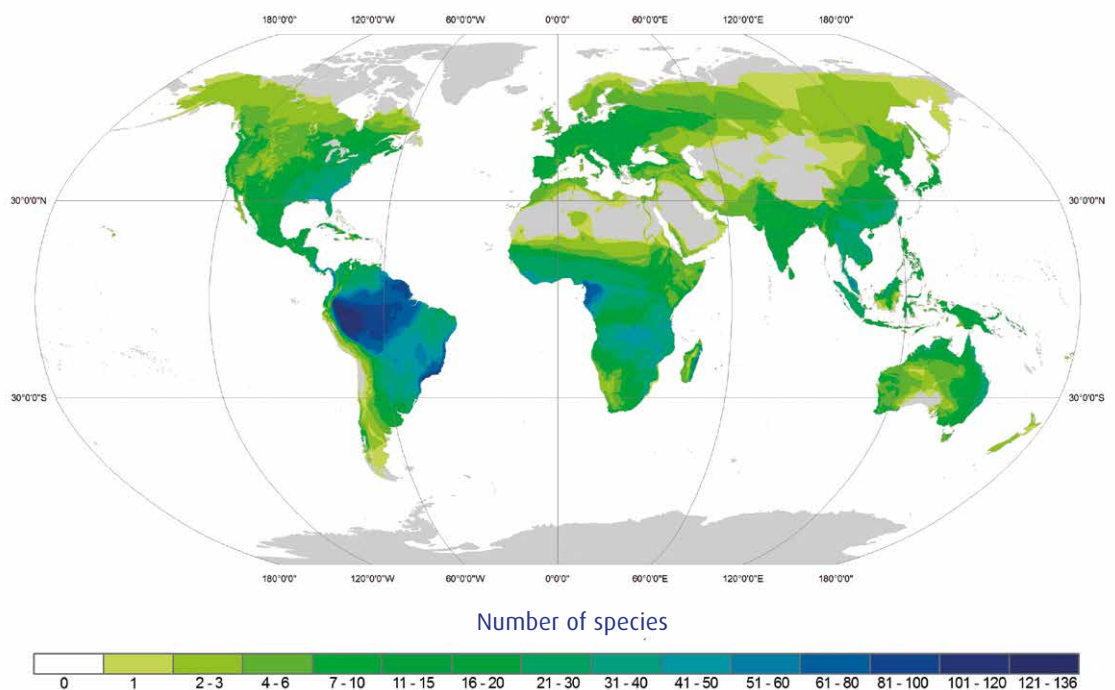
- *Anura*: frogs, toads (~ 7151 species)
- *Urodela*: salamanders and newts (~ 738 species)
- *Gymnophiona*: caecilians (~214 species)

The decline in amphibians was reported for the first time 70 years ago. Globalisation, habitat destruction, over-exploitation, climate change and diseases have today resulted in a level of loss never observed before.

Nearly 168 species are believed to have gone extinct, of which there have been 90 extinctions over the past 50 years.

Scientists consider that the **global amphibian trade has directly contributed to this decline** by putting several species to the brink of extinction and contributing to the spread of amphibian pathogens worldwide like *Batrachochytrium dendrobatidis* (Bd), *B. salamandrivorans* (Bsal) and ranaviruses.

Global Amphibian Species Richness



'Speaking of skin, amphibian skin has proven to be a valuable pharmaceutical treasure chest. From antibiotics and analgesics to compounds that block the transmission of HIV, the thin skin of amphibians has already produced many exciting bio-medically active products. Unfortunately, many species and their skins have already gone extinct before we have a chance to discover what their contribution could be'. Amphibian Ark – Keeping threatened amphibian species afloat

Why amphibians matter

Amphibians are vital components of the aquatic and terrestrial ecosystem and play an important role in the food chain by consuming millions of insects and as prey. They are sensitive to environmental changes and for that reason are often considered an important indicator of environmental health. They also provide indirect ecosystem services to humans : as food, a product (e.g. skin or as pets) or a source of biomedicines (compounds are used to fight a large variety of diseases such as cancer, strokes, depression, Alzheimer's or HIV).

International legal issues

The trade of most amphibians is **not legally regulated** at international level. It could be stated that they are overlooked animals from an international legal perspective.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which entered into force in 1975, only covers 225 species (~3.04% of the group). Most amphibians are listed under Annex II which includes species that, although currently not threatened with extinction, may become so without trade controls. Unlike trade in Appendix I specimens, trade in Appendix II specimens requires only an export permit and captive-bred individuals of these species are acceptable for trade and sale.

At the last two CITES Conferences of the Parties (CoP), some new attention has been given to amphibians (Latin American frogs and Asian newts).

European legal issues

At EU level, **trade in certain exotic amphibians** is regulated under Environmental and Animal Health legislation.

Under Environmental legislation, the *EU CITES regulation* implements the international provisions of the Washington Convention (225 species). The trade in CITES-listed amphibians to the European Union is authorised provided that applicable CITES documentation is submitted (such as import permits). The EU adds an additional layer of protection and such permits will only be issued provided the EU has received positive scientific advice (Non-Detriment Finding). It also adds 10 non-CITES listed species of amphibians (mainly salamanders) in Annex D to monitor their importation within the European Union. Most of these were listed in 2009.

Under Environmental legislation, the *regulation on invasive alien species* prohibits the importation, trade, keeping and breeding of the American bullfrog *Lithobates catesbeianus*. This species is detrimental to European biodiversity.

Under Animal Health legislation, importation and intra-Union trade restrictions on salamanders and newts currently applies until December 2019, which aim to protect native European species from a harmful fungus called *Batrachochytrium salamandrivorans* (Bsal).

What is at stake?

- While live amphibians are very popular species for the pet trade worldwide, there is a **strong lack of data and knowledge regarding the flow of trade at international and European level.**

When entering the EU, an official veterinary check is obligatory at Border Inspection Posts (BIP) according to EU legislation. The BIP must be pre-notified of consignments prior to import and such notifications are uploaded to TRACES, which is an EU electronic system for managing notifications and official controls.

Annex D of the EU regulation primarily includes species not listed in the international CITES Appendices, but for which the European Union wishes to monitor the import flows to the different countries of the European Union. If these trade flows prove to be very significant, this may lead the Union to subsequently list these species in an Annex in which they will receive a higher degree of protection.



Bombina orientalis (Oriental Fire-bellied Toad
- No CITES listing)

Information on the species, number of animals concerned and customs codes relating to the consignment should be entered in TRACES.

Importation of amphibians from third countries into the European Union

Decision Year	SPE Class Name	Number of Animals
2017	Amphibia (Excl Caudata)	5385934
2018	Amphibia (Excl Caudata)	2863378
	Sum:	8249312

EU TRACES-database

Contrary to reptiles, there is **no specific international code for amphibians** under the Harmonised Commodity Description and Coding System, called 'HS nomenclature', managed by the World Customs Organisation. A specific HS code for meat from amphibians (frog legs) was applicable until 2007.

Currently amphibians are included under HS Code 01069000, which is valid for all live animals with the exclusion of mammals, reptiles, birds, insects, fish, crustaceans, molluscs and other aquatic invertebrates and cultures of micro-organisms.

As a majority of amphibians are non-CITES species, such a general code makes the monitoring of their trade highly complicated, if not impossible.

- Priority should be given to the conservation of wild populations. By setting up a strict trade system through its annexes, controlled licensing system and regulations on quotas for harvest, the CITES Convention is intended to achieve this goal and to help maintain a sustainable wild population. However, the laundering of wild animals as captive-bred under CITES does occur, and illegal specimens are assumed to be the founding stock for many captive specimens, including within the European Union. Trade data under CITES is therefore sometimes biased and cannot provide a comprehensive knowledge of the international trade flow.
- Challenges relating to the decline of amphibians are currently not properly addressed at international and EU level, as relevant legislation is either lacking (for non-CITES species) or defined in such a sectoral manner (for example, CITES does not take into account risks linked to the spread of pathogens through the trade, nor animal welfare issues, or only very poorly) that legal provisions seem insufficient to prevent such a decline.
- At Belgian national level, there is no law governing the keeping of exotic amphibians, with the exception of the national CITES legislation and the regional and federal nature conservation laws prohibiting the keeping and import of the invasive American bullfrog.

Recommendations

- **As a long-term goal, increase attention to the issue at international level to establish international commitments. The objective would be to tackle the various challenges related to the global decline of amphibians in a synergetic manner and to ensure their conservation and sustainable use worldwide. The prevention of their over-harvesting and pathogen spread to native populations through the pet trade (legal or illegal) should be addressed as a priority;**



Eurycea lucifuga (Cave Salamander – No CITES listing)

In order to be able to do so, global amphibian decline should be put at the forefront of EU discussions. A thematic debate at the UN Environment Assembly (UNEA) should be organised with the aim of bringing the issue to the attention of the United Nations General Assembly through an appropriate resolution.

- **As a medium-term goal, ensure that:**
 - **A sound trade monitoring mechanism is in place at international level by including all amphibian species in CITES appendices, for which significant levels of trade may pose a threat to their survival. If proper data regarding the status of wild populations is lacking, any trade activity should be considered potentially detrimental (precautionary principle). In this regard, consider reviewing the species selection criteria of CITES;**
 - **A sound trade monitoring mechanism is in place at national and European scale by adding the most commonly traded amphibians within the European Union to Annex D of the CITES EU Regulation;**
- In order to be able to do so:**
 - **establish through the World Customs Organisation a specific HS nomenclature code for amphibians and ask the European Union to integrate this at its level;**
 - **develop and strengthen the capacity of customs and other law enforcement agencies with a view to implementing border and trade controls (including in relation to online trade).**
- **As a short-term goal,**
 - **Increase knowledge about the trade in amphibians (pathway of introduction, type of species, numbers of specimens traded and origin) within the European Union and its Member States and identify species that are more likely to be wild-harvested;**
 - **Consider the need to set up positive lists of amphibians that can be kept as pets or any other appropriate tool. Develop in that respect an awareness tool for amphibian traders, hobbyists and casual buyers;**
 - **Facilitate collaborations and enhance synergies and data exchange between researchers, hobbyists and professional keepers and breeders, NGOs, civil society, government, and policy-makers at national, European and international level;**
 - **Re-implement the EU restriction on salamanders and expand its scope to include amphibians, also including Bd and ranaviruses as a comprehensive preventative mitigation tool with the ultimate aim of creating a “clean trade” (i.e. the absence of OIE listed amphibian pathogens throughout the commercial chain).**

References

- Amphibian Ark – Keeping threatened amphibian species afloat, <http://amphibianark.org>
- Commission Implementing Decision (EU) 2018/320 of 28 February 2018 on certain animal health protection measures for intra-Union trade in salamanders and the introduction into the Union of such animals in relation to the fungus *Batrachochytrium salamandrivorans*. [2018] OJ L62/18.
- Council Regulation (EC) No 338/97 of 9 December 1996 on the protection of species of wild fauna and flora by regulating trade therein, [1997] OJ L061.
- Gerson H. 2012. International trade in amphibians: a customs perspective. *Alytes*, 29 (1-4): 103-115.
- Martel A. et al. 2013. Second cause of chytridiomycosis in amphibians. *Proceedings of the National Academy of Sciences*, 110 (38) 15325-15329; DOI: 10.1073/pnas.1307356110.
- Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, [2014] OJ L317/35.
- Scheele B. C., et al. 2019. Amphibian fungal panzootic causes catastrophic and ongoing loss of biodiversity. *SCIENCE*: 1459-1463.
- Valencia-Aguilar A., Cortés-Gómez A. & Ruiz-Agudelo C. 2013. Ecosystem services provided by amphibians and reptiles in Neotropical ecosystems, *International Journal of Biodiversity Science, Ecosystem Services & Management*; accessed Nov 12 2019; 9:3, 257-272, DOI: 10.1080/21513732.2013.821168.
- UNEP-WCMC technical report no. SRG79/9 , 2017, overview of Annex D species; accessed Nov 12 2019.

This fact sheet is part of a set of a series of six covering the trade in exotic animal species. They are focused on illegal importation of meat into the European Union (including bushmeat) and the legal or illegal trade in reptiles and amphibians. They were developed on a collaborative way between the FPS Health and a group of experts. They were issued during the “Towards a sustainable wildlife trade” One World One Health recommendations event organized on 3 and 4 December 2019 by the FPS Health and the Belgian Biodiversity Platform.



Biodiversity.be



federal public service
HEALTH, FOOD CHAIN SAFETY
AND ENVIRONMENT

