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OF WILD FAUNA AND FLORA



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Species conservation and trade

Terrestrial species

CONSERVATION OF AMPHIBIANS (AMPHIBIA SPP.)

1. This document has been submitted by the Secretariat in relation to agenda item 32.*
2. The Annex to this information document contains the proceedings of the online technical workshops on *Conservation of Amphibians* held on 27 – 28 November 2023 and 30 November 2023 – 1 December 2023.

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CONSERVATION OF AMPHIBIANS

Proceedings of the online technical workshop held on 27-28 November and 30 November – 1
December 2023



Conservation of Amphibians: Proceedings of the online technical workshop held on 27-28 November and 30 November – 1 December 2023

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EXECUTIVE SUMMARY

On 27-28 November 2023 and on 30 November-1 December 2023, more than 140 experts, policy makers and stakeholders from 39 countries gathered online for an international workshop on the conservation of amphibians (*Amphibia* spp.). The meeting was convened by the CITES Secretariat in two two-day sessions to accommodate different time zones from where participants connected to the workshop. The session on 27-28 November targeted the regions of North America, Central and South America and the Caribbean, and was conducted in English with interpretation in Spanish. The session on 30 November-1 December targeted the regions of Africa, Asia, Europe and Oceania and was conducted in English. Each two-day session was attended by more than 75 participants, including range States, exporting, transit and importing countries, the International Union for Conservation of Nature (IUCN) and its Species Survival Commission (SSC) Amphibians Specialist Group, the United Nations Environment Programme – World Conservation Monitoring Centre (UNEP-WCMC), and non-governmental organizations.

The workshop was convened in accordance with Decision 19.197 on *Conservation of amphibians* (*Amphibia* spp.), adopted at the 19th meeting of the Conference of the Parties (CoP19, Panama City, 2022). It provided participants with an opportunity to identify amphibian species in trade, share existing national legislation relevant to the trade in amphibians, evaluate whether current levels of trade in amphibians are compatible with their conservation in the wild, compile further data on harvesting levels of amphibians subject to high volumes of international trade, explore the emerging threat of diseases to traded amphibians, and examine current enforcement efforts to deter and detect illegal and unreported trade and identify additional actions needed.

This report contains background information and sets out the objectives of the workshop. It summarizes the workshop discussions and outlines a set of observations, draft recommendations and next steps that were identified by workshop participants.

This report will be presented for consideration at the 33rd meeting of the Animals Committee (AC33, Geneva, July 2024), the 78th meeting of the Standing Committee (SC78, Geneva, 2025) and the 20th meeting of the Conference of the Parties (CoP20, TBD, 2025).

1 WORKSHOP OVERVIEW

1.1 Date and venue

The workshop was held online on Interactio (<https://www.interactio.io/>) in two two-day sessions. The first session, held on 27-28 November 2023, targeted the regions of North America, Central and South America and the Caribbean, and was conducted in English with interpretation into Spanish. The second session, held on 30 November-1 December 2023, targeted the regions of Africa, Asia, Europe and Oceania, and was conducted in English only. Interpretation into French was not provided, due to the limited representation of participants from primarily French-speaking countries.

Both two-day sessions discussed the same topics. Discussions on issues or priorities that are more regionally focused are captured in section 2.2.2. on “Regional priorities”.

1.2 Organization and acknowledgements

The workshop was convened by the CITES Secretariat and was made possible by financial support from the European Union and Switzerland. The background study *International Trade in Amphibians: A summary of the status, management, and trade in amphibians (Amphibia spp.) to support implementation of CITES Decision 19.197* was prepared under contract from the CITES Secretariat by the International Union for Conservation of Nature (IUCN) and the IUCN Species Survival Commission Amphibians Specialist Group.

1.3 Background

At its 18th meeting (CoP18, Geneva, 2019), the Conference of the Parties considered document CoP18 Doc. 62 (Rev. 1), submitted by Costa Rica, which raised concerns about the need for an improved understanding of the impacts of trade in amphibians. At the same meeting, the Conference of the Parties adopted Decisions 18.194 – 18.196 on *Conservation of amphibians (Amphibia spp.)*. The Secretariat reported on progress with the implementation of these Decisions to the 31st meeting of the Animals Committee (AC31, online, 2021) in Document AC31 Doc. 21. The Animals Committee subsequently submitted Document CoP19 Doc. 60 for consideration at the 19th meeting (CoP19, Panama City, 2022) of the Conference of the Parties, which adopted the revised and updated Decisions 19.197 – 19.199 on *Conservation of amphibians (Amphibia spp.)*, as follows:

Directed to the Secretariat, in close consultation with the Animals Committee

- 19.197 The Secretariat shall, subject to availability of external resources and in close consultation with the Animals Committee:
- a) conduct one or more interdisciplinary workshops for CITES Authorities and other relevant authorities and stakeholders about amphibian species in international trade, including but not limited to the following objectives:
 - i) identify amphibian species that are in international trade and evaluate whether certain species or groups should be recommended for possible listing in the Appendices;
 - ii) share existing national legislation relevant to the trade in amphibians;
 - iii) evaluate whether current levels of trade are compatible with the conservation of these species in the wild;
 - iv) compile further data on harvesting levels of amphibians subject to high volumes of international trade;
 - v) explore the emerging threat of diseases to traded amphibians, including amphibian chytrid fungus and rana viruses; and
 - vi) examine current enforcement efforts to deter and detect illegal and unreported trade and identify additional actions needed; and
 - b) explore modalities to implement this Decision in a cost-effective manner, including through the organization of online events; and
 - c) report on the progress in the implementation of paragraph a) and b) above to the Animals Committee, including any relevant recommendations.

Directed to the Animals Committee

- 19.198 The Animals Committee shall:
- a) consider the report submitted by the Secretariat as per Decision 19.197; and
 - b) make recommendations to the Standing Committee and the 20th meeting of the Conference of the Parties, as appropriate.

Directed to the Standing Committee

19.199 The Standing Committee shall consider any report submitted by the Animals Committee as per Decision 19.198 and develop recommendations for consideration of the 20th meeting of the Conference of the Parties, as appropriate.

1.4 Workshop objectives

The workshop was convened in fulfilment of paragraphs a) and b) of Decision 19.197 on *Conservation of amphibians (Amphibia spp.)*, adopted at the 19th meeting of the Conference of the Parties (CoP19, Panama City, 2022), and provided participants with an opportunity to identify amphibian species in trade, share existing national legislation relevant to the trade in amphibians, evaluate whether current levels of trade in amphibians are compatible with their conservation in the wild, compile further data on harvesting levels of amphibians subject to high volumes of international trade, explore the emerging threat of diseases to traded amphibians, and examine current enforcement efforts to deter and detect illegal and unreported trade and identify additional actions needed. Participants also had an opportunity to submit resource materials for consideration during the workshop, and to review the preliminary findings of the background study *International Trade in Amphibians: A summary of the status, management, and trade in amphibians (Amphibia spp.) to support implementation of CITES Decision 19.197* prepared under contract from the CITES Secretariat by the International Union for Conservation of Nature (IUCN) and the IUCN Species Survival Commission Amphibians Specialist Group. The final version of this study will be presented for consideration at the 33rd meeting of the Animals Committee (Geneva, July 2024).

1.5 Agenda

The workshop agenda consists of two parts (one for the session focused on North America, Central and South America and the Caribbean, and one for the session focused on Africa, Asia, Europe and Oceania), which are included in Annexes A.1 and A.2, respectively.

1.6 Documentation

All documentation for the workshop remains available at <https://cites.org/eng/node/138520>. While the webpage only refers to the second session of the workshop, it includes all the documentation that was made available to each session, including the background study and its species prioritization matrix, as well as additional resources relevant to the topics discussed (see Section 2 below). Additionally, draft versions of relevant modules from the guidance for making non-detriment findings (NDFs) were also made available to workshop participants for their feedback. Finally, all presentations that were made during the workshop are also available at the abovementioned link.

1.7 Participants

A list of all workshop participants and the countries/organizations they represent is included in Annex B.

2 WORKING STRUCTURE

2.1 Opening session

The workshop opened with a welcome address from the CITES Secretary-General, Ms. Ivonne Higuero, who emphasized that amphibians are thought to be the most threatened class of vertebrates globally with 41% of known species considered to be threatened with extinction according to the IUCN Red List of Threatened Species. Ms. Higuero further stated that: “Amphibians, with their unique ecological roles and remarkable diversity, play a crucial part in

maintaining the delicate balance of our ecosystems. The threats they encounter, ranging from habitat loss to the threat from diseases such as chytrid fungus and ranavirus, to the impacts of international trade, necessitate our collective focus and collaboration.”

Karen Gaynor of the CITES Secretariat gave an introductory presentation to explain and establish the conduct and objectives of the workshop, in line with paragraph a) of Decision 19.197 cited above.

2.1.1 Background study: International Trade in Amphibians

Jonathan Kolby of the IUCN SSC Amphibians Specialist Group gave a detailed introduction to the background study *‘International Trade in Amphibians: A summary of the status, management, and trade in amphibians (Amphibia spp.) to support implementation of CITES Decision 19.197’*. The report is organized in three Sections, namely:

1. Amphibian Trade Assessment: A Global Snapshot of International Trade in CITES and Non-CITES Listed Amphibians with the United States of America Between 2015 and 2020
2. National Legislation Governing International Trade in Amphibians: Legislative Summary and Exploration of Potential and Confirmed Illegal Amphibian Trade Events
3. Emerging Threat of Amphibian Diseases: Spread of Amphibian Pathogens Through the International Trade in Amphibians.

Participants learned that the main data sources used for the study included the United States Fish and Wildlife Service (USFWS) Law Enforcement Management Information System (LEMIS), responses to CITES Notification to the Parties No. 2023/101 and its questionnaire circulated on 18 August 2023, TRAFFIC’s Wildlife Trade Portal, and a literature review. The EU-TWIX database could not be accessed in the limited time available. An extract of the CITES Trade Database, covering the years 2018 to 2022, was made available to workshop participants to complement the data used for the study.

The study relied heavily on LEMIS data, which provided the level of detail necessary to characterize international amphibian trade activity by a major country of import and export. As the scope of these data is limited to the United States’ trade interactions, participants in the workshop were invited and encouraged to share any other datasets they are aware of, to enable further analysis of patterns in international trade in amphibians outside the United States of America.

Mr. Kolby clarified how the study assessed which species were most commonly traded, including those traded as live animals, as frogs’ legs, or as scientific specimens, and which species were most commonly found in legal versus illegal trade. Key takeaways include, *inter alia*:

- The international trade in scientific specimens affected the highest number of species (1269 species) across all types of commodities;
- The international trade in frogs for human consumption occurs at much greater volumes than that for all other purposes combined, but it involves relatively few species;
- Illegal trade primarily involves species assessed as Least Concern in the IUCN Red List.

Based on the tables in the study, the Secretariat compiled a list of 132 species in Excel, including 41 CITES-listed species and 91 non-CITES-listed species. This “*Species prioritization matrix*” was made available to workshop participants, who were invited to perform their own analyses, based on the number of times a species was highlighted in one of the tables of the study, its Red List status, whether it is CITES-listed or not, and other criteria participants might identify, and come up with a list of priority species that might require further conservation and management action.

Mr. Kolby further provided a brief overview of the level of legal protection afforded to amphibians in the countries who responded to Notification to the Parties No. 2023/101, most of whom noted the presence of national legislation that governs either the trade in amphibians specifically, or trade in wildlife more broadly.

Finally, Mr. Kolby presented the study's findings regarding the spread of pathogens through the international trade in amphibians, including Amphibian chytrid fungus (*Batrachochytrium dendrobatidis*), Salamander chytrid fungus (*Batrachochytrium salamandrivorans*), and Ranavirus. Almost three quarters of the countries who responded to Notification to the Parties No. 2023/101 indicated that they regulate trade in amphibians to prevent the spread of pathogens. Additional biosecurity measures were suggested to help reduce the spread of amphibian pathogens through trade, including diagnostic testing upon import/export, maintaining closed system amphibian breeding operations, packing animals in lower densities, and disinfecting shipping materials (eg. water, cartons, containers, and substrates).

2.1.2 Global Amphibians Assessment

Oliver Tallowin of IUCN gave a brief overview of the recent Global Amphibians Assessment (GAA), a recurring initiative that comprehensively assesses all known amphibian species for the IUCN Red List of Threatened Species. The second GAA (GAA2) took place between 2015-2022 (the third is underway and is due to be completed in 2028). A total of 8,011 Red List assessments were undertaken and will be available for download on 11 December 2023, when the next Red List update is published. Of these 8,011 assessments, about a quarter concerned amphibian species that were newly described since the first GAA in 2004. Key findings of the GAA2 were presented as follows:

- 41% of amphibians are globally threatened with extinction, making them the most threatened vertebrate group. Salamanders are particularly at risk, with 3 out of every 5 species threatened with extinction. The number of amphibian extinctions could be as high as 222, when considering the 37 confirmed extinctions and an additional 185 species with no known surviving population.
- Habitat loss remains the most common threat to amphibians, affecting 93% of threatened species. Agricultural expansion continues to be the main cause of habitat loss and degradation, followed by timber and plant harvesting, and infrastructure development.
- The Neotropics, home to almost half of the world's amphibians, are also the most threatened realm, with 48% of its species in threatened categories.
- The leading cause of increases in extinction risk in amphibians shifted from disease (chytridiomycosis) during the 1980–2004 period to climate change effects during 2004–2022.
- Amphibian species are showing signs of recovery in some areas where critical habitat has been protected, and since 1980 the extinction risk of 63 species has been reduced due to conservation interventions. However, scaled-up investment is urgently needed to reverse current trends.

With regard to over-exploitation and unsustainable trade practices, the GAA2 found that the collection from the wild of amphibians, primarily frogs and salamanders, for human consumption, medicine, and the international pet trade (among other uses) represents a threat to 256 globally threatened species (9%). The high demand for novel and/or rare species, gaps in trade regulations, and small geographic ranges of amphibian species may make them especially vulnerable to over-exploitation.

2.1.3 Trade in frog legs

Participants in the session on 30 November 2023, which had a focus on Africa, Asia, Europe and Oceania, then heard from Dr. Sandra Altherr of Pro Wildlife about other ongoing work and initiatives on the sustainability of and regulations in the trade in frog legs. Over the period 2010-2019, based on EUROSTAT data from 2021, a total of 40,598 tonnes of frog legs were imported into the EU, which correlates to 814 million to 2 billion individual frogs, depending on their size. Most of these imports originated from Indonesia (74%), Viet Nam (21%), Türkiye (4%) and Albania (1%). While 70% of the imports entered the EU through Belgium, France remains the biggest consumer market.

Frog legs imported into the EU from Indonesia most commonly concern the species *Fejervarya cancrivora* and *F. limnocharis*. Both are rated Least Concern according to the IUCN Red List, but regional declines and significant demographic changes are reported for both species. EU imports of frog legs from Viet Nam mostly concerned *Hoplobatrachus rugulosus*, which is mostly farmed, but with restocking from the wild being reported. Frog legs imported from Türkiye concerned *Pelophylax bedriagae* (including *P. caralitanus*) and *P. ridibindus*, although exports are reportedly often mislabeled as *P. esculentus*. The participants learned that both *P. bedriagae* and *P. ridibinus* are severely overexploited and rapidly declining, with a risk of extinction of large-bodied frogs in Türkiye by 2030. Imports of frog legs from Albania concerned three *Pelophylax* species, all of which have declining populations: *P. epeiroticus*, *P. kurtmuelleri*, and *P. shqipericus*.

Key take-aways presented at the workshop include:

- There is a lack of species-specific trade data (EUROSTAT).
- Processed frog legs are difficult to identify to species, leading to a high level of mislabelling.
- Over the decades, frog populations in several countries have been over-exploited, leading to local or regional declines of targeted populations, and raising concern about an “extinction domino effect”.
- There is a need for international regulation to ensure sustainability of trade, in the absence of which even common and widely distributed species are at risk of overexploitation.
- Environmental risks of frog farms need to be addressed.

2.1.4 EU trade in *Pelophylax* species

Participants in the session on 30 November also heard from Ms. Saloni Basrur of UNEP-WCMC regarding their report on EU trade in *Pelophylax* species from Albania and Türkiye, noting that multiple studies (some of which are available on the [workshop webpage](#)) raise concern about the sustainability of trade in this genus, destined for the frog legs market in Europe. The UNEP-WCMC report collates information on the biology, population status, distribution, trade and management of five *Pelophylax* species from these two countries, which are thought to be the major exporters of wild-sourced frogs for the EU market. Two of these five species are globally threatened or Near-Threatened, and three are experiencing population declines. Overharvesting is considered to be one of the main threats in both countries. UNEP-WCMC informed the workshop that information received from Türkiye on management and species exports, which indicated that *P. ridibindus* is the only species subject to wild-sourced exports from that country, but that *P. esculentus*, which is considered a synonym or a hybrid is also imported from Azerbaijan and then processed for re-exports.

2.2 Discussion

The presentations were followed by lively discussions, where several issues were raised, including, among others, those summarized in the following sub-sections. The Secretariat encouraged participants to consult the extract of the CITES Trade Database for the period 2018-2022, as well as the [Species Prioritization Matrix](#) to undertake their own analyses of that data in the context of these discussions.

2.2.1 Reporting on Decision 19.197 paragraph a)

Participants considered whether the elements of paragraph a) of Decision 19.197 have been implemented. The workshop concluded as follows:

- Section i) regarding the identification of amphibian species in international trade and evaluation of whether certain species or groups should be recommended for possible listing in the Appendices:

There was some discussion about how to approach possible listings in the CITES Appendices. Concerns were raised regarding the difficulty of identifying species in trade, and the fluidity of amphibian taxonomy, with new species being described regularly, and many so-called cryptic species whose exact taxonomy remains a matter of scientific debate. Some participants questioned whether listings at a higher taxonomic level might be preferable for amphibians, rather than listings at the species level. The family listing of the glass frogs (*Centrolenidae* spp.) was given as an example where including the whole family in the appendices was considered the only way to protect specific species within this family that are actually in trade, as it is otherwise too difficult for customs officials to identify the species.

The Secretariat emphasized that even for higher taxon listings, the proposal needs to clearly demonstrate which listing criteria are met by specific species within that taxonomic group. It was also noted that the Animals and Plants Committees were given a mandate to review the impacts of existing and future higher taxon listings in the Appendices and propose further guidance and recommendations as necessary, for consideration by the Standing Committee (Decision 19.272 on *Higher taxon listings in the Appendices*).

The [Species Prioritization Matrix](#) condenses all the information that is included in the background study. It identifies those species that are already CITES-listed, as well as the IUCN Red List status of each of them (including changes that occurred as a result of the second Global Amphibians Assessment). The Secretariat noted that it is not up to this workshop to make recommendations for listings, but to identify a starting point for further consideration by the Animals Committee. This will be a prioritized list, which identifies range States for each of the priority species, so that Parties that may want to consider a proposal for listing may see which species are relevant to them, and which other range States they will need to consult in the preparation of a proposal.

The workshop concluded that this part of the Decision has been implemented.

- Section ii) concerning the sharing of national legislation relevant to the trade in amphibians.

The Secretariat noted that there was a limited response in this regard to Notification to the Parties No. 2023/101 of 18 August 2023. This part of the Decision is therefore considered incomplete. Workshop participants recommend that the Animals Committee invite the Secretariat to reach out to range States of priority non-CITES listed species to obtain additional information on national legislation protecting those species, including legislation covering the protection of amphibian habitats;

- Section iii) concerning the compatibility of current levels of trade with the conservation of amphibian species in the wild, and section iv) concerning harvesting levels of amphibians subject to high volumes of international trade.

The Secretariat noted that there is not much information on current levels of trade, nor on harvesting levels of amphibian species subject to high volumes of international trade. The workshop noted that the NDF guidance can also be used for non-CITES listed species to assess whether trade in those species is sustainable. Unfortunately, the NDF database currently does not include any clear examples of NDFs for amphibians.

It was noted that the species identified in the background study as being subject to high volumes of international trade were mostly bred in captivity, although one, *Lithobates forreri*, is primarily collected from the wild. The Secretariat observed that more data is required on which species are captive bred, and that a request for such information has already been made to Species360.

The workshop concluded that these parts of the Decision are as of yet incomplete. These aspects may need to be considered further in draft decisions for the 20th meeting of the Conference of the Parties (CoP20, 2025).

- Section v) concerning the emerging threat of diseases to traded amphibians, and section vi) concerning current enforcement efforts to deter and detect illegal and unreported trade and identification of additional actions needed.

The Secretariat noted that IUCN produced a good summary of the emerging threat of diseases to traded amphibians, as well as some good suggestions of biosecurity measures that need to be put in place. The workshop noted that the implementation of CITES listings by enforcement officers appears to be effective, but that non-CITES listed species are often poorly recorded or mislabeled. As many of these non-CITES listed species may be nationally protected, the question was raised how knowledge about nationally protected species is shared. The use of Appendix III was noted as a possible way of generating more awareness of, and data on, trade in nationally protected species.

The workshop concluded that these parts of the Decision have been implemented.

2.2.2 Any other issues

Several topics for discussion were highlighted by IUCN in the background report that were listed in Annex 4 of that report and presented to the workshop for feedback. Subsequently, participants discussed topics they themselves had submitted to the Secretariat prior to the workshop (see “Additional topics” below).

Conversion factors

Units of measure used to record amphibian specimens in trade vary, with large numbers of shipments being recorded in either kilograms or numbers of animals. This makes it complicated to assess how many animals have been taken from the wild, as 1000 kg of frogs’ legs could represent different numbers of frogs depending on the species.

The workshop observed that there is a need to compile information on conversion factors between number and live weight of traded amphibians, and to reach out to breeders and exporters to gain a better understanding of real live trade, rather than basing conversion factors on scientific literature (noting that the scientific data on average weight may not be reflective of the subset of specimens commonly found in trade (eg. adults vs juveniles)). Consideration could also be given to providing guidance to Parties on which units of measure to use in their annual reports.

Trade terms

Similar to the previous point, there is a lack of standardization in the description of products in trade. Two segments of trade were particularly affected: firstly, high volume trade for food, where products in trade may be referred to as legs (LEG), meat (MEA) or live animals (LIV). Secondly, trade in scientific specimens is described either as specimen (SPE), body (BOD) or live animals (LIV). This creates much uncertainty about what is actually in trade and the impact on wild amphibian populations. For example, a shipment of “500 SPE” may just refer to skin swabs, which may not actually have removed animals from the wild. Conversely, it could also have been a shipment of 500 actual frogs.

The Secretariat notes that the guidelines on annual reporting include instructions about which trade terms to use, and which units of measurement to use for each trade term. For example, frogs’ legs should be referred to as LEG and recorded in kg. The trade permit further includes space for additional details, which could be used to specify the number of individuals represented by a shipment that is recorded in, for example, kilograms, or number of skin pieces.

Participants further noted that there needs to be a common understanding of trade terms before units of measurement can be agreed. For example, frogs’ legs may be traded as LEG, whereas it may in fact be a shipment of live animals destined for consumption as legs.

It will be up to the Animals Committee to decide whether changes to the guidance on annual reports and annual illegal trade reports are required in response to the challenges raised here. Alternatively, there may be a need to raise awareness among Parties and customs officers about the availability of the existing guidance.

Anomalous reporting of improbable amphibian species and country/region of origin combinations

A considerable number of shipments which showed source codes and/or countries or regions of origin that appeared impossible for the species concerned [primarily source code W (wild-caught) for a species traded from a country/region of origin outside its natural range]. This issue affected 10% of non-CITES listed species only, and mostly those listed as Least Concern on the IUCN Red List and traded in high volumes. The workshop considered whether such anomalous reporting was unintentional (e.g. a lack of knowledge, or negligence), or intentional to circumvent applicable laws and regulations, and therefore be a guise for illegal trade. Questions regarding how traceability might be improved, including when species are traded and re-exported by multiple countries, were discussed. However, as this issue was identified based on only one dataset, the workshop did not draw any conclusions. The Secretariat nevertheless noted that, in the case of CITES-listed species, existing processes are in place to address such anomalous reporting, through the Review of Significant Trade and the provisions of Resolution Conf. 17.7 (Rev. CoP19) on *Review of trade in animal specimens reported as produced in captivity*.

Incorrect species identification of traded amphibians

Genetic analyses have shown that a majority of large volume shipments of frogs’ legs between Asia and Europe, but also between Brazil and other Latin American countries and the United States of America, did not contain the species mentioned on the label. While largely an issue with frogs’ legs, other types of shipments were also affected, for example, bodies for dissections in biology classes, but for the most part it concerns species that are neither threatened, nor CITES-listed. The workshop considered that this type of misidentification is likely mostly unintentional, and a symptom of the inherent challenges of identifying amphibians in trade to the species level.

The Secretariat noted that capacity building of law enforcement personnel should be incorporated in CITES' capacity building processes. It further reminded the workshop of ongoing work on the identification of existing ID materials, which will be reviewed by the Animals Committee at its next meeting.

Spread of emerging infectious diseases through the international trade in amphibians

In response to Notification to the Parties No. 2023/101, some Parties indicated that they have some form of legislation to manage the risk of infectious diseases spreading through the international trade in amphibians. However, implementing those policies can be difficult, especially when there is limited screening at the various stages of the trade chain, and when dealing with high volume shipments. A major challenge is the difficulty of collecting samples along the trade chain to generate more knowledge about how frequently these pathogens are moving, in which species and trade systems. Addressing this issue requires an interagency approach (trade, phytosanitary, zoonoses, etc).

Within CITES, one approach may be the requirement that live specimens prepared for transport are prepared in a way that reduces risk to their wellbeing. Shipping them in a way that prevents the spread of disease could fall under that heading. This is something to keep in mind when CITES next reviews the IATA transport guidelines.

Additional topics

Next, topics submitted by participants ahead of the workshop were discussed, if they had not already been addressed previously. These included:

- **Most traded species online:** the workshop highlighted the caveats that need to be considered when looking at online trade (domestic vs international, non-genuine offers for sale, sting operations). For these reasons, IUCN did not include data on online trade in their study. There was general agreement that looking at online trade can nevertheless be useful to identify species potentially in trade, or at least, species that are in demand.
- **Traceability of captive-bred amphibian specimens:** data on captive breeding should be included in the [Species Prioritization Matrix](#). An additional idea shared by participants is to consider what life stages or size of animals are traded to help strengthen traceability. For example, size restrictions are regularly applied to tortoises/turtles in trade. Such information should also feed into the process of Resolution Conf. 17.7 on *Review of trade in animal specimens reported as produced in captivity*. The Secretariat noted that a recommendation often coming out of the review of captive breeding and RST processes is to restrict the life stages or sizes that should be allowed in trade.
- **The importance of amphibians in their ecosystems:** this would be one of the main elements of the NDF workshop taking place the following week in Nairobi. Participants at the workshop shared some examples of the roles of amphibians in their ecosystems for consideration at the NDF workshop, including prey for other species, maintaining water quality, indicators of forest health, pest control, etc.

3 NON-DETRIMENT FINDINGS FOR AMPHIBIANS

Participants discussed whether the draft modules for non-detriment findings (NDFs) produced for the NDF workshop taking place the following week (from 4-8 December, Nairobi, Kenya) were adequate for application to amphibians, or whether taxon-specific guidance for making NDFs for amphibians would be required. The Secretariat compiled feedback from this workshop on Conservation of Amphibians with considerations and questions that could be fed into the NDF workshop, as follows:

- How can cumulative pressures on amphibians be addressed? For example, participants raised the question how NDFs may consider the effects of climate change on the spread of disease.
- The specific roles of amphibians in their ecosystems are not yet included in examples given in the NDF modules. Examples could include the role of amphibians as prey for other species, their role in improving water quality, or the dependence on bromeliads of some species for their reproductive success (see also above for additional examples).
- International trade in species as potential disease agents, and the impacts such trade may have on other species.

4 OBSERVATIONS AND DRAFT RECOMMENDATIONS

The workshop made the following observations and draft recommendations for consideration by the Secretariat and/or the Animals Committee, as appropriate:

Observations:

- Sections i), v) and vi) of paragraph a) of Decision 19.197 are considered to have been implemented;
- Section ii) on national legislation is incomplete;
- Sections iii) and iv) on current levels of trade and harvesting levels for priority non-CITES listed species are incomplete.
- Challenges identified include the lack of quantitative data on trade in (and captive breeding of) non-CITES listed species, evolving taxonomy and species identification.

Recommendations:

Regarding implementation of Decision 19.197

The workshop made the following recommendations:

1. Reach out to range States of the priority non-CITES listed species to obtain additional information on national legislation relevant to the trade in amphibians, including on legislation covering the protection of amphibian habitats;
2. Consider whether it is desirable to develop draft decisions on i) evaluating current levels of trade in amphibians and the compatibility thereof with the conservation of these species, and ii) compiling further data on harvesting levels of amphibians subject to high volumes of international trade, and to submit them to the Conference of the Parties for consideration at its 20th meeting (CoP20, 2025).

Regarding other issues

The workshop made the following recommendations:

3. Continue to develop the Species Prioritization Matrix by:
 - a. including additional columns with updated Red List assessments, a list of range States, and, in consultation with Species360, captive breeding information concerning priority species;
 - b. producing a separate set of priority species traded for frog legs; and
 - c. submit the matrix to the Animals Committee along with the study and the reports from the workshop;
4. Refer the following issues to the workshop on non-detriment findings, taking place in Nairobi from 4 to 9 December 2023, for its consideration:

- a. Concerns about how to address cumulative pressures on amphibians;
 - b. The specific roles in the ecosystem of amphibians (e.g. in terms of improving water quality);
 - c. International trade in species as potential disease agents.
5. Raise awareness about, and train customs officers in, the guidance for annual reporting;
6. Consider additional training needs for customs and law enforcement officers;
7. Continue to identify and source additional relevant datasets;
8. Encourage Parties to share non-detriment findings for amphibian species for inclusion on the CITES website;
9. Invite Parties to implement biosecurity measures to avoid the spread of pathogens, such as:
 - a. Diagnostic testing upon import/export;
 - b. Maintaining closed system amphibian breeding operations;
 - c. Packing animals in lower densities to reduce pathogen transmission;
 - d. Disinfection of shipping materials to prevent spreading infectious material through water (to be treated before disposal), cartons, containers and substrates;
10. Invite Parties to share information about amphibian breeding farms operating on their territory;
11. Consider ways to improve data recording with regard to international trade in amphibians, and submit, as appropriate, a draft decision for consideration by the Conference of the Parties at its 20th meeting, including in relation to the following issues:
 - a. Development/collation of a table of conversion factors for amphibians;
 - b. Standardization of the way in which shipments are recorded to improve accuracy, including by recording trade to the level of individual animals involved in a shipment, and producing guidance, as required, on the terms to be used for amphibians and their parts and derivatives in trade;
 - c. Indication of the life stage or size of animals being traded as part of the trade data, to help strengthen traceability and confidence that the animals in trade are generally coming from the sources described;
12. Identify existing identification materials for amphibians, which need to be simple and fit for purpose, as part of the implementation of Decisions 19.142 – 19.144 on *Materials for the identification of specimens of CITES-listed species*, and consider the practicality of identification materials for use by customs and law enforcement officers, in view of the sensitivity of amphibians to being handled and the way in which they are packaged;
13. Consider ways in which live animals may be shipped in a manner that reduces the risk of disease transmission during trade, as part of the next CITES review of the International Air Transport Association (IATA) Live Animals Regulations (LAR);
14. Encourage Parties who are considering developing a possible listing proposal under Resolution Conf. 9.24 (Rev. CoP17) to work with consumer Parties and to consult with other range States as recommended in Resolution Conf. 8.21 (Rev. CoP16);

15. Encourage Parties to consider Appendix III listings for species that meet the criteria set out in Resolution Conf. 9.25 (Rev. CoP18), and in consultation with other range States, as a possible way of generating more awareness of, and data on, trade in nationally protected species.
16. Consider, as part of the implementation of Decision 19.186 on *Identifying information on species at risk of extinction affected by international trade*, how the information collected through this workshop can be made available to Parties.

5 NEXT STEPS

The issues referred to the workshop on non-detriment findings, outlined in Section 3 of this report, will be considered during the NDF workshop, which will take place in Nairobi from 4 to 9 December 2023. The outcomes of that workshop will be made available in a separate report.

This current workshop report, along with the study undertaken by IUCN and the [Species Prioritization Matrix](#), once finalized, will be submitted to the Animals Committee for consideration at its 33rd meeting.

Agenda: Workshop on amphibians

Geographic focus North America, Central and South America and the Caribbean

Online, 27 & 28 November 2023

Interpretation available in English and Spanish.

DAY 1 Monday 27 November (14:00 to 17:00 CET)

1. Introduction
2. Conduct of the workshop
3. Objectives of the workshop
4. Presentation of background information followed by a Q&A session
 - *Introduction by IUCN (including methodologies, data sources and responses to notification)*
 - *Amphibian trade*
 - *National legislation*
 - *Amphibian disease and international trade*
 - *Other submissions received*

The aim of the workshop is to discuss the results of the amphibian study and other information shared with participants.

5. Discussion
 - a) reporting on CITES Decision 19.197, paragraph a) under the following headings (has this aspect been addressed or not; is more work needed; identification of possible sources of information; develop draft recommendations, etc.):
 - identify amphibian species that are in international trade and evaluate whether certain species or groups should be recommended for possible listing in the Appendices;
 - share existing national legislation relevant to the trade in amphibians;
 - evaluate whether current levels of trade are compatible with the conservation of these species in the wild;
 - compile further data on harvesting levels of amphibians subject to high volumes of international trade;
 - explore the emerging threat of diseases to traded amphibians, including amphibian chytrid fungus and rana viruses; and
 - examine current enforcement efforts to deter and detect illegal and unreported trade and identify additional actions needed;

- b) Regional priorities concerning the above;
- c) Any other issues concerning conservation and trade in amphibians not covered above.

DAY 2 Tuesday 28 November (14:00 to 17:00 CET)

6. NDFs for amphibians

Participants are requested to review the draft NDF guidance in advance of this workshop and consider if modules 1 and 2 are applicable to amphibians, or if the amphibians workshop would like to propose any amendments to address any gaps, which can be proposed at the NDF workshop in December 2023.

7. Proposed draft recommendations

Participants are invited to submit proposed draft recommendations in advance. These draft recommendations will be collated with the recommendations coming from the workshop. A consolidated set of draft recommendations will be produced at the end of the workshop.

8. Review of final outputs

9. Next steps

10. Closure of meeting

Agenda: Workshop on amphibians

Geographic focus Africa, Asia, Europe and Oceania

Online, 30 November & 1 December 2023

No interpretation. Meeting only available in English.

DAY 1 Thursday 30 November (12:00 to 15:00 CET)

1. Introduction
2. Conduct of the workshop
3. Update from workshop held on 27 and 28 November
4. Objectives of the workshop
5. Presentation of background information followed by a Q&A session
 - *Introduction by IUCN (including methodologies, data sources and responses to notification)*
 - *Amphibian trade*
 - *National legislation*
 - *Amphibian disease and international trade*
 - *Other resources available*

The aim of the workshop is to discuss the results of the amphibian study and other information shared with participants.

6. Discussion
 - a) Trade in Frog legs
 - b) Reporting on CITES Decision 19.197, paragraph a) under the following headings (has this aspect been addressed or not; is more work needed; identification of possible sources of information; develop draft recommendations, etc.):
 - identify amphibian species that are in international trade and evaluate whether certain species or groups should be recommended for possible listing in the Appendices;
 - share existing national legislation relevant to the trade in amphibians;
 - evaluate whether current levels of trade are compatible with the conservation of these species in the wild;
 - compile further data on harvesting levels of amphibians subject to high volumes of international trade;
 - explore the emerging threat of diseases to traded amphibians, including amphibian chytrid fungus and rana viruses; and

- examine current enforcement efforts to deter and detect illegal and unreported trade and identify additional actions needed;

Wrap up of Day 1 and outline for day 2.

DAY 2 Friday 1 December (12:00 to 15:00 CET)

7. Discussion continued
 - c) Regional priorities;
 - d) Any other issues concerning conservation and trade in amphibians.
8. NDFs for amphibians

Participants are requested to review the draft NDF guidance in advance of this workshop and consider if modules 1 and 2 are applicable to amphibians, or if the amphibians workshop would like to propose any amendments to address any gaps, which can be proposed at the NDF workshop in December 2023.

9. Proposed draft recommendations

Participants are invited to submit proposed draft recommendations in advance. These draft recommendations will be collated with those coming from the first workshop held on 27/28 November and any coming from this second workshop. A consolidated set of draft recommendations will be produced at the end of the workshop.

10. Review of final outputs
11. Next steps
12. Closure of meeting

List of participants

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