

EU found responsible for extinction domino effect on frog populations

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Limnonectes blythii species complex from a large-scale collector in North Sumatra. Credit: Mark Auliya

Between 2010 and 2019, total imports of frog's legs into the EU numbered 40.7 million kg, which equals to up to roughly 2 billion frogs. While Belgium is the main importer, France is the main consumer. These insights are part of a new study, published in the journal *Nature Conservation*, which found "inexplicable volatility" in the trade of frog legs and an extreme dependency of the EU on other countries to meet its demand.

Leading author Dr. Auliya of the Leibniz Institute for the Analysis of Biodiversity Change in Bonn, Germany, outlines the manifold uncertainties underlying this <u>trade</u>: "The international trade in frogs' <u>legs</u> is a black box, whether it is the lack of <u>species</u>-specific trade data, which would be needed to ensure sustainability, or the large-scale mislabeling in trade and the challenges to identify species when it comes to processed, skinned and frozen frogs' legs."

Frogs have a central role in the ecosystem as insect predators—and where frogs disappear, the use of toxic pesticides increases. Hence, the frogs' legs trade has direct consequences not only for the frogs themselves, but for biodiversity and ecosystem health as a whole. The extent to which <u>pesticide residues</u> in frogs' legs are traded internationally remains unclear.

In the 1970s and 1980s, India and Bangladesh were the top suppliers of frogs' legs to Europe, but when their wild <u>frog</u> populations collapsed, both countries banned exports. Since then, Indonesia has taken over as the largest supplier. In the Southeast Asian country, as now also in Turkey and Albania, large-legged frog species are dwindling in the wild,



one after the other, causing a fatal domino effect for species conservation. This increasingly threatens frog populations in the supplier countries.



Frozen frogs' legs on sale in a French supermarket, August 2022. Credit: Sandra Altherr / Pro Wildlife

"The EU is by far the world's largest importer of frogs' legs, and largelegged species such as the crab-eating grass frog (Fejervarya cancrivora), the giant Javan frog (Limnonectes macrodon) and the East Asian bullfrog (Hoplobatrachus rugulosus) are in particular demand among



supposed gourmets in Europe," points out co-author Dr. Sandra Altherr, a biologist and wildlife trade expert of the Germany-based charity Pro Wildlife.

While commercial frog farms, like those operated in Vietnam, may at first glance seem to be an alternative that can relieve the pressure from wild frog populations, ongoing restocking of frog farms with native species from the wild and, in the case of non-<u>native species</u>, such as the American bullfrog (Lithobates catesbeianus) the risk of escape, invasion and potential risk of disease spread, are serious risks for the environment.

The harvest of wild frog populations and species produced at commercial frog farms for the purpose of consumption also leaves <u>disease control</u> and hygiene measures by the wayside; additionally, the cross-border trade of species for consumption has led to genetic pollution and hybridization between species.







Frogs' legs from large ranids at a large-scale reptile collector in North Sumatra, Indonesia. Credit: Mark Auliya

"During the course of this study, it became clear just how difficult it is to obtain concrete data on the current <u>international trade</u> in frogs' legs. Specifically, <u>relevant data</u> are scattered across different unconnected databases," the researchers write in their paper.

In the course of their review, they were not able to find any published data out whether pesticide residues and other potentially <u>toxic substances</u> in (processed) frogs or their legs imported into the EU have been monitored. "This in itself is shocking and in view of the situation in exporting countries and the lack of transparency and management in the application of agrochemicals and veterinary medicinal substances within commercial farms, we strongly recommend that this monitoring become an urgent near-future task for importing countries," they write.

"The complexity of issues underlying the <u>frogs</u>' legs trade is not a priority policy item for the EU," the authors conclude. They add that a listing of the most-affected frog species under CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, would help to monitor trade and ensure its sustainability, and the EU as the main destination should take the lead on that.

More information: Mark Auliya et al, Numerous uncertainties in the multifaceted global trade in frogs' legs with the EU as the major consumer, *Nature Conservation* (2023). DOI: 10.3897/natureconservation.51.93868



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