

Press release

For immediate release

HKU Ecologist Highlights Critical Gaps in Global Wildlife Trade Monitoring

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Image 1: A striking Jayapura green tree python, likely wild-caught, highlighting the beauty and vulnerability of species in the wildlife trade. Photo Courtesy of Julie Lockwood.

Wildlife trade poses one of the greatest threats to the survival of numerous species. According to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) at least 50,000 species are involved in trade. However, while this figure already seems huge, it risks overlooking less traditional sectors of wildlife trade, such as the pet or fashion trade. For instance, recent data shows that the number of butterflies traded exceeds the total number of terrestrial arthropods in the IPBES assessment. This raises a critical question: How many wild species are actually being traded globally?

This question remains hard to answer. While species classified as potentially endangered by trade may be monitored under the auspices of CITES, most wildlife trade is legal and falls outside the scope of any overarching international legislation or monitoring. One notable exception is in the United States, where the US Fish and Wildlife Service tracks traded wildlife through the Law Enforcement Management Information System (LEMIS).

Using 22 years of LEMIS data, a recent study led by Professor Alice C. HUGHES, Associate Professor of the School of Biological Sciences, The University of Hong Kong (HKU), in collaboration with international researchers, explores the dimensions of wildlife trade and obtain one of the most comprehensive overviews to date. Published in *Proceedings of the National Academy of Sciences (PNAS)*, the study reveals striking findings: between 2000 and 2022, the US traded almost 30,000 wild species and over 2.85 billion individuals, with over 50% of individuals from most taxa sourced directly from the wild. These findings are significant as the impact of trade on most of these species has never been assessed.

While the US provides detailed records of traded species, comparable data is lacking in most other countries. For most species in trade, we lack data on offtake or wild population size, making it impossible to assess the

sustainability of the trade. However, in cases where assessments have been made, the majority of populations subjected to harvesting have shown declines.

This paper highlights the true scale and diversity of legal wildlife trade. Remarkably, less than 0.01% of the wildlife trade recorded in the US was illegal, meaning that these billions of individuals are not only traded legally, but for most taxa the majority come from the wild. The research also highlights how little we genuinely know about what makes up wildlife trade globally. The lack of systematic monitoring not only hinders our ability to understand or monitor trade but also precludes any opportunity of manage it sustainably.

The study advances our understanding of wildlife trade, and the codes developed will facilitate the standardisation and analysis of further trade data. With the second part of CBD-COP16 scheduled for February 2025, we hope this paper highlights the importance of evaluating how wildlife trade data is recorded and shared, and encourages effort toward more comparable global datasets.

Our findings are detailed in the paper *The magnitude of legal wildlife trade and implications for species survival*, published in the journal *Proceedings of the National Academy of Sciences (PNAS)*.

The full article is available at the following link: <https://www.pnas.org/doi/10.1073/pnas.2410774121>

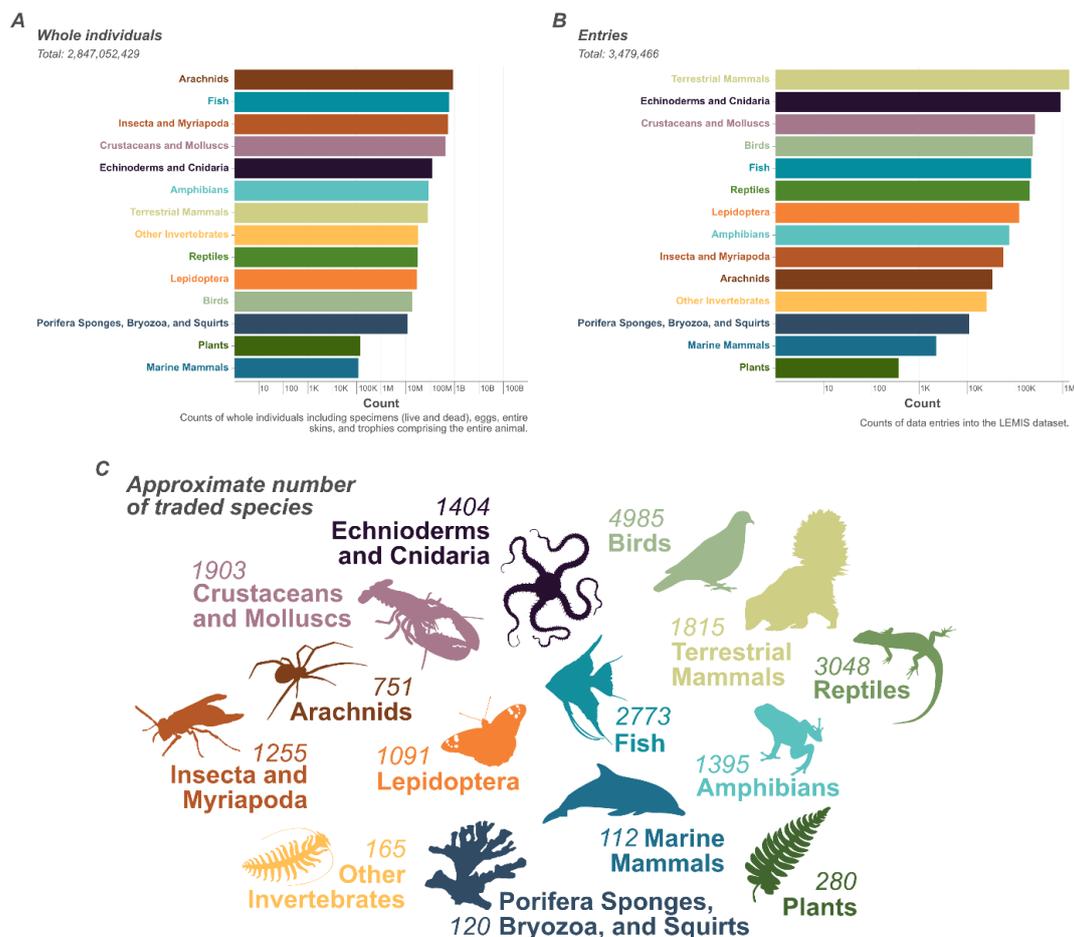


Image 2: This graphic illustrates data from LEMIS on wildlife in trade in the United States, showing the number of individuals traded for each animal group. Image adapted from the journal paper *The magnitude of legal wildlife trade and implications for species survival (PNAS, 2025)*.



Image 3: A chameleon for sale in a shop, possibly taken from the wild. Photo courtesy of Julie Lockwood.

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