New study: Conservation experts warn of current dangers posed by the legal wildlife trade

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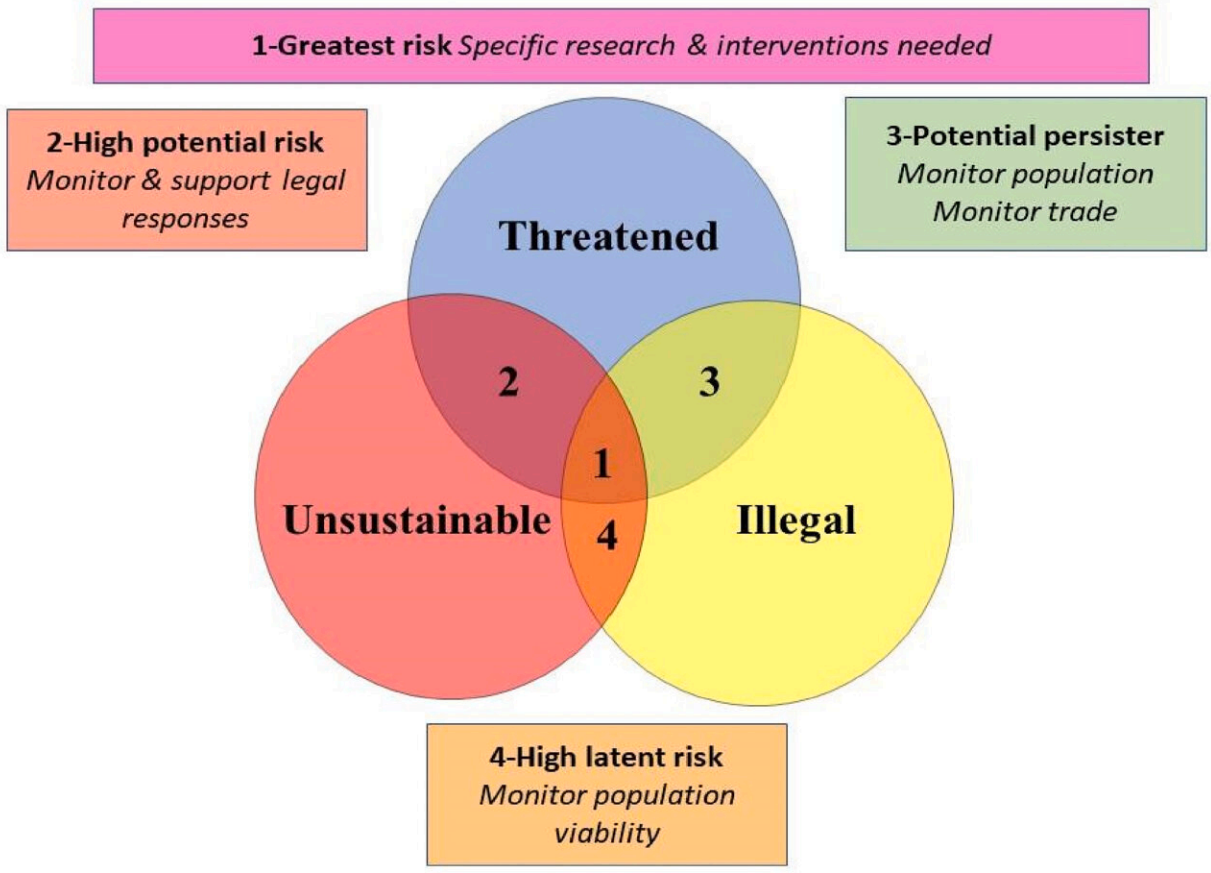

Framework to assess the impacts of trade on species, examples of species within each category are noted in Table S1. Three dimensions of wildlife trade exist in assessments of species vulnerability: threat status, sustainability of trade, and legality. Combinations of these three dimensions describe four distinct classes of vulnerability to trade, each with specific implications for conservation. (1) 'At

greatest risk', species considered at high risk of trade are threatened and currently illegally traded at unsustainable levels. These species are of high priority for monitoring, identification of research needs, and require immediate intervention to halt possible extinction. (2) 'High potential risk' are species that are currently threatened (either by trade or a suite of disturbances) and traded at unsustainable levels. Although the trade is legal, immediate population monitoring combined with support of legal responses is required. (3) 'Potential persisters' are those species currently threatened by human disturbance and are traded illegally; yet, their current trade is expected to be at sustainable levels. Monitoring of populations and enhanced enforcement is essential to ensure this group of species do not transition to 'at greatest risk' owing to transitions to unsustainable offtake. (4) 'High latent risk' are species with high levels of unsustainable and illegal trade. Although these species are not threatened owing to large population and range sizes, unsustainable illegal offtake may quickly threaten species. Thus, although not of immediate concern, continued monitoring of population sizes as well as offtake and reassessments of threat status are imperative, in addition to the implementation of regulations established at national level to detect and prevent illegal trade. Credit: *Journal of Environmental Management* (2023). DOI: 10.1016/j.jenvman.2023.117987

A multinational and interdisciplinary team of scientists has published new research that provides critical insights into the damage that the legal wildlife trade currently poses to global conservation and sustainability efforts. The group includes members of multiple International Union for Conservation of Nature (IUCN) Species Survival Commission specialist groups who aim to highlight the risk posed by legal but unsustainable trade in thousands of species.

The study, published this month in the *Journal of Environmental Management*, involves a systematic review of existing tools, safeguards, and legal frameworks currently in place to ensure the sustainable use of live wild animals and their body parts.

The researchers found that, for the vast majority of cases, the legal trade in wild animal species is not supported by any rigorous evidence of sustainability, with a lack of data on wildlife export volumes, wild animal population data, and evidence-based impact assessments of trade being of particular concern.

"Exploitation of wildlife represents one of the greatest threats to species survival. However, too often legal trade is automatically equated as being sustainable despite a lack of evidence needed to confirm that this is indeed the case," says Dr. Alice Hughes, Lead scientist, and Associate Professor at the University of Hong Kong.

"Our research sheds stark light on the systemic lack of regulatory safeguards that are urgently required to ensure that the legal trade does not drive wild population declines. While many wildlife focused conventions include claims of 'sustainable use' in reality these rarely refer to evidence or use precautionary principles to prevent further overexploitation of species."

While much attention is being paid to combating illegal wildlife trade, many of the same challenges are also evident in the legal wildlife trade. The global legal wildlife trade is a big and burgeoning business estimated by some to be currently worth around 400 billion USD per year.

The risks of unsustainable legal trade have been recognized and built upon by various United Nations conventions, which aim to reduce global biodiversity loss. However, the exploitation of wildlife is still considered to be the second greatest threat to global diversity and its vital contributions to people, right after climate change.

Dr. Mark Auliya of the Leibniz Institute for the Analysis of Biodiversity Change in Bonn, Germany and contributing scientist, says, "Our study provides evidence for 183 species showing unsustainable trade in a broad

array of wildlife groups—ranging from mammals like the mountain reedbuck for trophy hunting and handicraft products to invertebrates like the harlequin shrimp for the global exotic pet trade."

"We found that the current legal trade was not supported by rigorous evidence of sustainability of these species examples with a lack of data on export levels and wild population monitoring data preventing any true assessments of sustainable use. These examples are only an indicative subset and should be considered as the tip of a larger iceberg. We expect that further scrutiny will reveal that far many more wildlife species are being exploited at unsustainable levels."

The authors caution against the assumption that wildlife species can withstand high offtakes in the absence of data and underscores the need for appropriate application of the precautionary principle to prevent population declines and species extinctions, as well as to enable long-term economically viable wildlife trade. These species are crucial for ecosystem health. For the above reasons, monitoring of populations is essential to enable sustainable trade and not to jeopardize the provision of important ecosystem services.

Dr. Vincent Nijman—contributing scientist, and professor in anthropology at Oxford Brookes University in the UK—says, "Understanding what wild animals are being traded, where from, and at what volumes, in addition to the impact on the long-term viability of species, will be critical to slowing the loss of species from across the planet. In particular, a more precautionary approach is needed to halt biodiversity declines, underpinned by a revised burden of proof."

"This should place the need on traders and importers to illustrate sustainability to allow trading, not conservation scientists and practitioners to reveal unsustainability, or customs officers to prove export contravenes regulations."

To help address the current situation, the scientists identify four core areas that should be strengthened to achieve this goal: (1) rigorous data collection and analyses of populations; (2) linking trade quotas to IUCN and international accords; (3) improved databases and compliance of trade; and (4) enhanced understanding of trade bans, market forces, and species substitutions.

Professor David Edwards—contributing scientist, and Professor of Conservation Science at the University of Sheffield, UK—says, "Creating awareness among decision makers of the lack of sustainability in much legal wildlife trade is urgently needed. Action is required to adapt relevant regulatory frameworks, like CITES, to ensure the continued survival of many threatened species."

"There are no winners from unsustainable wildlife collection and trade: without sustainable management not only will species or populations become extinct, but communities dependent upon these species will lose livelihoods."

More information: Alice Hughes et al, Determining the sustainability of legal wildlife trade, *Journal of Environmental Management* (2023). DOI: 10.1016/j.jenvman.2023.117987

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