

Wildlife Conservation, Consumption, and Use in a Post-COVID-19 World

INTRODUCTION

The global COVID-19 pandemic resulting from widespread human exposure to the novel Severe Acute Respiratory Syndrome (SARS)-CoV-2 coronavirus has been devastating. Available evidence points to a possible origin of the virus from horseshoe bats (genus *Rhinolophus*, family Rhinolophidae), and suggests that the initial outbreak of the COVID-19 disease may have been associated with a live legal wildlife market (wet market) in Wuhan, China. Because of this, the pandemic has focused attention on the trade and use of wildlife and wildlife products; wildlife consumption; wildlife and human health; and our relationship with nature. Calls to shut down wildlife markets and trade and ban wildlife consumption have resounded across the globe. The impacts on human and wildlife health of ever-increasing human encroachment into habitats are being discussed.

The Association of Fish and Wildlife Agencies (Association) founded in 1902, is the professional organization that serves as the collective voice of North America's fish and wildlife agencies. Our mission is to support and advocate for state, provincial and territorial responsibility for science-based fish and wildlife conservation. The Association believes that the development of domestic and international interventions (i.e., policies, regulations) to reduce the risk of future pandemics need to be targeted and specific; consider the economic, nutritional, and conservation benefits of sustainable harvest and use of wildlife that many local communities depend upon; improve national and international collaboration; increase our knowledge of wildlife diseases; and address wildlife and human health.

BACKGROUND

Sustainable and legal harvest, use (both consumptive and non-consumptive), and trade of species, have proven to be powerful tools to support wildlife conservation. By supporting legal and sustainable harvest, use, and in specific cases the sale of wildlife and wildlife products, conservation agencies, organizations, and local communities can generate funds for wildlife conservation and local communities. The legal and sustainable use of wildlife is an important source of food, fiber, and other products, including medicinal ones. For example, populations of the American alligator were decimated by unregulated hunting and habitat loss resulting in a listing under the Endangered Species Act (ESA) in 1967. The collaboration between state fish and wildlife agencies, federal authorities, and international organizations have returned the American alligator to a thriving and growing population and made it one of the most internationally recognized recovery and sustainable use success stories. Their sustainable use protects the species while providing benefits to wetlands, local people, and cultures. Numerous countries and communities' benefit from eco-tourism that provides income for wildlife and habitat conservation and local livelihoods. In southern Africa, the ranching and sale of native antelope meat species ensures the survival of these species while providing inexpensive protein. In Papua New Guinea, butterfly ranching programs help to supply a global trade in insect specimens while providing resources and incentives to maintain healthy wild butterfly populations.

International treaties and conventions exist that have had successes in regulating international trade and positively impacting the conservation of some species. The International Union for Conservation of Nature (IUCN), Convention on Biological Diversity (CBD), and Convention on Migratory Species make recommendations on wildlife conservation, use, and trade; and assess species' status. The Convention

on International Trade in Endangered Species of Wild Fauna and Flora (CITES) regulates international trade to ensure it does not negatively impact the survival of a species listed in its Appendices and is binding on treaty signatories. Countries have domestic wildlife laws. In the United States, the Lacey Act and the ESA provide powerful tools for federal and state fish and wildlife agency law enforcement officials to address unlawful trade, as well as importation of injurious species into the United States and transportation of injurious species across certain jurisdictional boundaries within the United States. The Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (WAPPRITA) and Species at Risk Act (SARA) provide similar tools in Canada.

POLICY RECOMMENDATIONS

The Association believes that science-informed, targeted and proactive domestic and international interventions are needed to reduce risks of future pandemics while continuing to support people and wildlife. Policies need to be rooted in the fact that well-regulated and managed harvest, trade, and use (including tribal/indigenous rights) can successfully sustain fish, wildlife, and the habitats upon which they depend while supporting food security and livelihoods. Recommendations that should be considered when developing interventions include the following.

Recommendation 1. Include and collaborate with subnational governments and wildlife agencies:

Subnational governments and wildlife agencies should be integrated early and cooperatively into discussions about wildlife trade, harvest, use, and disease interventions and engaged in domestic and international policy development.

Why? Subnational governments across the globe play critical roles in wildlife conservation and disease response. U.S. State and Canadian Provincial and Territorial fish and wildlife agencies, for example, are at the front lines of wildlife conservation, and have increasing responsibilities related to wildlife diseases (e.g., Chronic Wasting Disease, white-nose syndrome).

Recommendation 2. Increase our knowledge: Fund and employ research and science and share current knowledge to guide targeted interventions and reduce the risk of future pandemics.

Why? Understanding the risks of the use, consumption, and trade of wildlife species, the role of human actions on wildlife including habitat destruction, and how those activities help facilitate the spread of zoonotic diseases is a critical and underfunded need.

Recommendation 3. Develop and support targeted rather than broad wildlife trade and consumption bans: Wildlife harvest, use, and consumption should be regulated in proportion to the known risk to wildlife conservation and human health.

Why? Lack of evidence of beneficial outcomes, complete bans of either domestic and/or international legal, sustainable wildlife trade, use and consumption are unwarranted and would have negative consequences for people and wildlife. Many of the world's most vulnerable people will be hurt the hardest if broad wildlife use and consumption bans are implemented, and this is a significant environmental justice concern.

Recommendation 4. Improve safety, sanitary standards: Reform and sanitary improvement of some wildlife markets (and in specific cases closure) is needed to reduce the risk of novel zoonotic disease outbreaks. Interventions must consider food security and subsistence/local community harvest.

Why? Wildlife markets in which large numbers of individuals and species of wildlife and fish from many diverse taxonomic groups, in many cases with unknown origins, are brought together in close proximity under sometimes unsanitary conditions. This is an important arena to develop targeted interventions in particular for known high risk species or taxa.

Recommendation 5. Enhance the effectiveness of existing institutions: Enhance the effectiveness and enforcement of existing international conventions within their current mandates.

Why? CITES Parties need funding to effectively enforce CITES regulations and the resources to develop implementing legislation. IUCN needs funding to conduct research to inform interventions and to facilitate global conversations about our relationship with nature and human and wildlife health. The CBD should consider risks of future pandemics and lessons learned from the current pandemic in development of the global biodiversity framework.

Recommendation 6. Increase international cooperation: Provide resources to help countries develop and enhance regulatory frameworks and policies for legal and sustainable use, trade, and consumption of wildlife.

Why? The successful implementation of legal, sustainable use of wildlife and the development of standards for live wildlife consumption varies by country. By assisting countries to improve implementation we can reduce the risk of future pandemics especially related to live wildlife consumption.

Recommendation 7. Increase law enforcement capacity: This includes increased efficiency and additional staff. Interventions should improve data collection/analysis and dissemination, communication; and provide training (e.g., identification of species in trade, import and export requirements).

Why? Increased support for law enforcement will help ensure trade and use is legal and sustainable and reduce illegal trade and use in species or taxa known to be high risk.

Recommendation 8. Enhance public outreach and education: Include public and stakeholder education and outreach when developing interventions.

Why? Increased public support and awareness about wildlife and wildlife products; wildlife consumption; wildlife and human health; and our relationship with nature will be critical to gain support for implementation of interventions.

CONCLUSION

The Association believes broad-based wildlife use, trade, and consumption bans are detrimental to wildlife and habitat conservation and the health of wildlife and people for the reasons stated above. We are advocating for science-informed, targeted interventions. We have an unprecedented opportunity to develop and improve policies that enhance the conservation of wildlife, improve human health, reduce the risk of future pandemics, and foster livelihoods.