



# Trading animals and diseases:

Canada's role in the global  
commercial wildlife trade



# Introduction

For the past year, one single issue has preoccupied our world: the COVID-19 pandemic. At the time of writing, over 2 million people globally have succumbed to the virus, with more than 18,000 individuals having lost their lives in Canada alone.<sup>1 2</sup> While families and friends mourn lost loved ones and survivors suffer long term health effects, the virus is still spreading around the world and here in Canada.

The virus has left the planet reeling in numerous ways. It is estimated that the COVID-19 pandemic will have caused a 5.2% contraction in the global GDP in 2020, triggering the deepest global recession in decades.<sup>3</sup> Governments, including Canada's, have been called upon to demonstrate domestic and global leadership to combat the many challenging social, medical and fiscal impacts that COVID-19 has wreaked on their populations. There has not been sufficient media or government attention on the root causes and drivers of this pandemic.

COVID-19 is a zoonotic disease, a disease that can be transmitted from animals to humans and vice versa. It was caused by coronavirus SARS-CoV-2 and research suggests it may have been transmitted from bats to humans via pangolins (scaly anteaters from Asia and Africa) - one of the most trafficked animals in the world.<sup>4</sup> While scientific research continues to better understand the evolution of the virus, the World Health Organization (WHO) stated that a market where wildlife was being sold in Wuhan, Hubei Province, China, was either the source of the COVID-19 outbreak or played a significant role in amplifying it.<sup>5</sup> The market had a section that reportedly sold many live and dead wild animals including snakes, hedgehogs, crocodiles and raccoon dogs. Similarly, the 2002 SARS outbreak was also linked to a market selling wildlife. That time the virus was likely transmitted to humans from palm civets, a small mammal that ranges across Southeast Asia.<sup>6</sup>

These are not isolated incidents:

**75%**  
of all new or emerging infectious disease over the past three decades originated from animals, and principally from wildlife.<sup>7</sup>



Unless otherwise noted, photos are © World Animal Protection

**Cover photo:** Wildlife and products seized by the Wildlife Enforcement Directorate, Ontario Region.

**Photos left:** © iStock.

**Photo right:** Snakes displayed for purchase at a reptile expo.

How do these diseases make it into the human population? There are many possibilities. Land-use change, agricultural expansion and the consumption and trade of wildlife have all been identified as major drivers for disease transmission.<sup>8</sup>

Markets where wildlife are being sold like the one in Wuhan flourish in many parts of the world. But these markets are just one small link in the global chain that is the wildlife trade - the legal and illegal trade in non-domesticated animals for human use.

The wildlife trade supplies live and dead animals and animal parts and derivatives within countries and across borders for a wide array of uses. Whether the ultimate use is trophies or trinkets, pets, food or medicine, the activity of acquiring and selling wild animals carries zoonotic disease risks. Regardless of legality and regardless of the end use, the result is that many

species and classes of animals find themselves in proximity with each other, with other species and with humans, often highly stressed, injured, or unwell. It's the stressful conditions, the encounters between species who wouldn't naturally meet in the wild and the close human proximity to animals while they are being caught or bred, transported, displayed or sold that can create the ideal breeding ground for diseases, and zoonotic diseases in particular.

Canada plays a significant role in both the selling and buying of wild animals and their parts, sustaining the same global wildlife trade that puts human health, globally, at risk. And by participating in the trade of wildlife, Canada also becomes complicit in both the enormous pain, fear and stress the trade puts on animals caught in it, as well as the further compromising of species and ecosystem biodiversity that results from it.





## Legal and illegal trade

When we think about trading in wildlife we might think of poachers, illegally catching animals for parts, like elephant tusks or rhino horns. But there is a massive trade in live wild animals and their products that is happening all around us, every day, fully sanctioned by the law. Theoretically the regulation of the legal trade is supposed to help us protect species, human and animal health, and the environment. In reality, this couldn't be further from the truth.

How does the legal trade contribute to the spread of zoonotic diseases? The current system for regulating the global wildlife trade does not address the public health risks, instead the dominant government approach to diseases is to react and control. Simply put, we lack a global preventative system or program that would recognize threats before they become widespread. For example, most countries lack government agencies that systematically screen all animal exports and/or imports for pathogens.<sup>9</sup> Outbreaks from around the world show that the risk of spreading zoonotic diseases through the wildlife trade is not just theoretical: a 2003 outbreak of Monkeypox in the US made people in six states ill, all stemming from a legal shipment of 800 rodents from Ghana and in 2007 the European Union permanently banned the importation of wild-caught birds after finding H5N1 (Avian Influenza) in imported birds.<sup>10 11</sup>

The legal trade not only creates the conditions for future pandemics, it continues to threaten biodiversity worldwide. Our global demand for wildlife for luxury goods, exotic pets, traditional medicines, food, and entertainment has threatened species and the habitats they and other species depend on.

Elephants continue to be slaughtered for their ivory at a rate faster than they can reproduce.<sup>12</sup> Sharks, turtles, geckos, fish and so many more types of animals are captured, processed and imported for apothecary products, bringing many closer to extinction with every passing day.<sup>13</sup> Globally we stand to lose more than a million species in the coming decade if we continue at the current rate.<sup>14</sup> This will also lead to other profound and dangerous losses: diminished crop pollination, pest control, water purification as well as cultural and spiritual losses.<sup>15</sup>

Along with health and ecosystem consequences, the wildlife trade is profoundly cruel. Whether captured from the wild or bred in captivity, whether the animal is destined for the pet industry or raised for bear bile or fur, suffering occurs at every step. High mortality rates in the exotic pet trade, which can be as high as 90%,<sup>16</sup> is an example of the poor conditions the animals are subjected to. For those who survive capture, breeding, transit and sale, only to live a life in captivity, suffer physically and mentally and often face premature death.

The stress and ill-health that we force wild animals to endure during their trade, is the very way we create the conditions for zoonotic diseases, and worst case, pandemics. Even when we don't experience an outbreak in our own country, we must recognize that Canadian demand for wildlife and products made from them can contribute to outbreaks of zoonotic diseases in the countries where the animals are caught, killed and/or processed.

**Photos left:** A snake on a vendor's shoulder and cages of animals at market in Indonesia. Photo credit: © World Animal Protection / Aaron Gekoski

## What can we do to reverse course?

The commercial wildlife trade is a key driver of pandemics and biodiversity loss. While a global trade ban is ultimately the best way to protect wild animals, human health and biodiversity, governments can take important incremental steps to reverse course. We must recognize the unnecessary high risks posed by trading wild animals for entertainment, exotic pets, trinkets and other luxury products that nobody needs. Governments should also support a transition away from animal-based traditional medicine when effective plant-based alternatives exist.

We can no longer afford to ignore the fact that the current pandemic and previous major epidemics around the world (e.g., SARS, MERS, Ebola, HIV/AIDS, HPAI H5N1) are fundamentally linked to our poor treatment and exploitation of wild animals and our encroachment on their habitats. As the health and welfare of animals, our environment and people are interconnected, a holistic “One Health, One Welfare” approach needs to be adopted to prevent future global outbreaks.



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While we look forward to the distribution of the new vaccines, they will not prevent future pandemics. But if we take appropriate preventative measures today, we can substantially decrease the risk of another global health and economic crisis, like this one, from happening ever again.











# Contents

<b>Introduction</b>	<b>2</b>
Legal and illegal trade	5
What can we do to reverse course?	6
<b>Canada's participation in the wildlife trade</b>	<b>10</b>
Canadian wildlife trade: a snapshot	10
Canadian imports and exports of wild animals: by the numbers	12
<b>Global and Canadian regulatory bodies</b>	<b>15</b>
International bodies and treaties	15
Canadian regulatory bodies	16
A patchwork of different regulations across the country	18
<b>The true costs and risks of the wildlife trade</b>	<b>20</b>
Trading in cruelty	20
Risks to human health and safety	22
Extinction and biodiversity loss	24
The legal trade fuels the illegal trade	25
Enforcement: a major challenge	26
No controls on breeding	26
Business is booming online	27
Exotic pet expos: wildlife markets in our backyard	27
Mobile live animal programs	28
<b>Canadians overwhelmingly want change</b>	<b>30</b>
Change is happening around the world	31
<b>Conclusion and recommendations</b>	<b>33</b>
The positive list approach	33
"One Health, One Welfare" approach	34
<b>References</b>	<b>37</b>

# Canada's participation in the wildlife trade

Though Canada is only 0.5% of the planet's population, it is a major contributor to the global wildlife trade and participates in the import, export, breeding and use of wild animals for exotic pets, hunting trophies, fur farming, entertainment, research, meat and traditional medicine.

## Canadian wildlife trade: a snapshot



Photo: © World Animal Protection / Tim Gerard Barker

Photo: © iStock.

**Exotic pets:** wild animals are imported, exported, and bred in Canada for the exotic pet industry. They are sold in stores, online, and at pet expos. Canadians keep an estimated 1.4 million exotic pets; the majority are reptiles and birds. It's a wide variety of wild animals including, but not limited to, various species of snakes, lizards, turtles, frogs, toads, birds (mainly parrots), wild cats, wild dogs, monkeys, and spiders.<sup>17</sup>

**Traditional medicine:** a declining population of Asian black bears has led to greater poaching of black bears in Canada for their gall bladders and bile, which is used in Traditional Asian Medicine (TAM). Some traditional medicines containing bear bile have been found for sale in Canada.<sup>18</sup> Most of this trade is illegal and provincial wildlife officials across the country have conducted investigations and dismantled numerous trafficking networks in recent years.<sup>19</sup>

**Trophy hunting:** Canada is one of the world's largest exporters of wildlife trophies. Thousands of animals are killed each year by sport hunters, mostly destined for the US. These include snow geese, black bears, Canadian geese and sandhill cranes, and even polar bears and grey wolves.<sup>20</sup>



Photo: © Jo-Anne McArthur

**Fur farming:** according to Statistics Canada, 98 mink and 27 fox farms existed in 2018 across Canada, housing over 340,000 animals.<sup>21</sup> Mink can carry and transmit SARS-CoV-2 and the virus is able to mutate during this process. Also, the possibility of infected farmed mink coming into contact with wild populations and creating new pathogen reservoirs is a concern.<sup>22</sup> At the time of writing, COVID-19 infections have occurred on mink farms in the Netherlands, Denmark, Spain, Sweden, Italy, Greece, France, Poland, and several states in the US (Michigan, Utah, and Wisconsin) and in B.C., Canada. Millions of mink have been culled globally and government action has included quarantining farms and accelerating the permanent closure of mink farms, as was done in the Netherlands.<sup>23</sup>



Photo: © iStock.

**Entertainment:** most zoos in Canada are not accredited and many operate according to their own rules without independent oversight. An emerging new issue is the rise of Mobile Live Animal Programs (MLAPs) that bring in wildlife such as wild cats, reptiles, amphibians, and invertebrates to places like homes, daycares, seniors' homes, and community centres for parties and events. At least 150 of these businesses have been operating throughout Canada between 2015 and 2019. Despite risks to public health, they often allow people, including people who are at greatest risk like young children and the elderly, to touch the wild animals. There is little oversight, and few to no measures are taken to safeguard the public or the animals. MLAPs are a relatively new business model and not yet addressed adequately in any provincial and municipal laws.

**Biomedical research:** wild animals are also used in Canada for research and other biomedical reasons. According to Access to Information requests, data from the Canada Border Services Agency (CBSA) between 2014-2019 show at least 28,975 wild animals were imported for these purposes. This included more than 19,000 primates and 8,300 different species of frogs.



## Canadian imports and exports of wild animals: by the numbers

Exotic wildlife species and products are imported on an annual basis to meet the Canadian demand. There are three agencies in Canada that regulate the import and export of wildlife: the Canadian Food Inspection Agency (CFIA), the Canada Border Services Agency (CBSA) and Canadian Wildlife Service (CWS).

Through Access to Information requests, World Animal Protection learned that between 2014 and 2019 at least 1,809,460 wild animals were imported into Canada.<sup>1</sup> Of these animals only 4.02% (72,765) were subject to CFIA permits and 3.26% (58,899) to permits in compliance with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which is mostly administered by the CWS.

The exotic pet trade is a significant driver for the importation of wild animals. For example, in 2019 Canada imported 320,081 wild animals and it is estimated that about 80% of these were destined for the pet trade.

Canadians also import a variety of different parts and products containing wild animals including products from bats, primates, and rodents – animals that harbor 75% of known zoonotic viruses.<sup>24</sup> According to CITES data, 171,923 primate items, 472 kilograms of primate derivatives and 562 litres of primate specimens were imported into Canada between 2014 and 2019. The importation of meat and medicines, containing wildlife also occurs, including the meat of saltwater crocodiles, Florida

<sup>1</sup> The actual number of wild animals imported is likely higher as some importation numbers were recorded as unknown and only electronic records could be provided at the time of requests due to COVID-19.

softshell turtle and reticulated pythons, and medicine containing Indian cobra, Saiga antelope and Reeves' turtle.<sup>25</sup> Overall, the US, Fiji, France and Indonesia are the largest exporters of CITES wildlife species and products to Canada. Indonesia, Fiji, US, Vietnam, and the Philippines are the countries who supply Canada with the most living wild animals.<sup>26</sup>

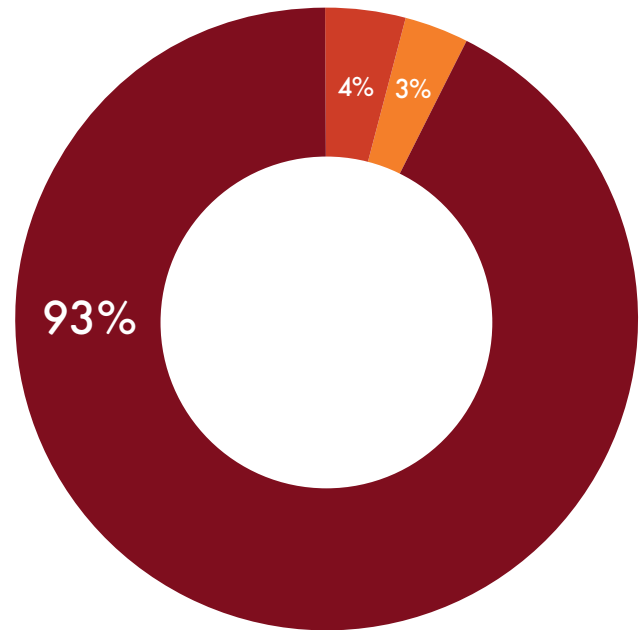
Comprehensive export data was not available at the time of writing. Analysis of publicly available CITES trade data indicated that at least 195,854 wild animals and 1,910,980 pieces, 212,116 kilograms of derivatives and 216 litres of wildlife specimens were exported from Canada between 2014 and 2019.<sup>27</sup> Exported wild animals included a wide range of native and exotic wildlife species among them Amazon parrots, Blue-and-yellow Macaws, Asian elephants, Poison dart frogs and Russian tortoises. As with importations, the purpose of export and types of products traded varied widely. Examples include the export of more than 62,000 wildlife trophies as well as medicine containing tiger, shark, and macaque components. US, Poland, China, Greece, and Germany are the countries to which Canada ships most of its CITES products. When only considering live wild animals covered by CITES, the main countries Canada exports to include the US, Japan, China, the Netherlands, and Hong Kong.

The data obtained from CFIA, CBSA and CITES is important for what it tells us, and for what it doesn't. Analysis shows that significant gaps exist in the recorded data. For example, 93.76% of imported reptiles (416,365 out of 444,071) recorded by the CBSA, lacked taxonomic species description. This is in stark contrast with mammals, where all but 0.38% were identified at a species-level. Gaps were also found in CFIA data. For example, the purpose of importation was recorded as unknown for almost 12% of the animals (8,660). And for 27% of the animals it was not known if they were wild caught or captive bred. 98.60% of animals imported under the CFIA permit also lack taxonomic species descriptions and were only recorded at the genus level (e.g., tortoise, parrot, etc.). Data reviewed from CITES records was also incomplete at times, with information on the origin, purpose, and source of the wild animal recorded as unknown.

A comprehensive and complete data set is an important first step towards developing methodologies and policies that help mitigate the risk of importing new diseases and illegal animals and addressing biodiversity decline. At the moment, important and potentially life-saving data is lacking in numerous ways.

#### % of wild animals facing import restrictions from 2014-2019

- CFIA
- CWS/CITES
- No restrictions



**Photo left:** Exotic skins used in making consumer products seized by the Wildlife Enforcement Directorate, Ontario Region.

Elephant Ivory  
(Elephantidae spp.)

Elephant Hair &  
Tiger Claw (Panthera tigris)



Alligator & Snake  
Skin Shoes

Common Iguanas  
(Iguana spp.)

# Global and Canadian regulatory bodies

## International bodies and treaties

A number of international bodies have some responsibility in addressing the trade in wild animals and wild animal parts and derivatives, including the World Trade Organization (WTO), World Health Organization (WHO), World Customs Organization (WCO), Food and Agriculture Organization (FAO), World Organisation for Animal Health (OIE) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The two most prominent bodies dealing with the wildlife trade are the OIE and CITES.

**OIE:** provides scientific and technical advice on animal health and animal disease to its 182 member states.<sup>28</sup> It works in close collaboration with the WHO and the FAO to address the zoonotic disease risks existing and emerging at the human-

animal-ecosystems interface. The OIE has identified the need to develop and update its guidelines for managing wildlife health, in consideration of animal welfare and food safety, along the wildlife trade supply chain, including game farming, transport, slaughter, and markets. As a member country of the OIE, Canada is expected to meet or exceed OIE standards.

**CITES:** an international treaty designed to ensure that the international trade in wildlife does not threaten the survival of any species.<sup>29</sup> The treaty, which entered into force in 1975, accords different levels of protection to more than 35,000 species of animals and plants, to ensure that their trade is “sustainable, legal and traceable.”<sup>30</sup> The agreement does not override or take the place of any domestic laws or statutes, but countries can develop domestic legislation to comply with the framework that CITES provides.

### Shining a spotlight on CITES

Unfortunately CITES has failed to protect many species at risk. For example, the treaty only covers 8% (5,950) of all known animal species and only severely restricts the trade for commercial purposes of 687 animal species currently listed under Appendix I.<sup>31</sup> This is very concerning considering that the International Union for Conservation of Nature (IUCN) has identified at least 14,735 vertebrate and invertebrate species to be Critically Endangered, Endangered or Vulnerable.<sup>32</sup>

The interests that seek to profit from the wildlife trade are a powerful force within CITES negotiations, and so many species, like coral, and bluefin tuna, even sharks, continue to be permitted for capture and trade though ample evidence exists that these species should be afforded the highest level of protection.<sup>33</sup> It's also problematic that some species who receive the greatest protection under CITES (e.g., pangolins) continue to be traded in great volumes.<sup>34</sup> Lastly, CITES does not consider animal welfare or the risk of zoonotic diseases when determining which animals should and shouldn't receive protection.

## Canadian regulatory bodies

**At the Canadian border, we have a complicated web of agencies, each playing a part in regulating different aspects of the import and export of wildlife.**

**Canada Border Services Agency (CBSA):** reporting to the Minister of Public Safety, CBSA “facilitates the flow of legitimate travellers and trade,” essentially overseeing all activity at border crossings, including ports, airports, railways, and roadways and including 117 land-border crossings. Wildlife trade is only a small part of their work, which spans over 90 different government acts and regulations pertaining to border security and public safety.<sup>35</sup>

**Canadian Wildlife Service (CWS):** responsible for enforcement of CITES, this agency reports to the Minister of Environment and Climate Change. In addition to enforcement the CWS issues CITES permits for provinces and territories that do not have a CITES permitting office.<sup>36</sup>

**Canadian Food Inspection Agency (CFIA):** This agency safeguards “food, animals and plants, which enhances the health and wellbeing of Canada’s people, environment and economy.”<sup>37</sup> Ministerial responsibility for CFIA activities is divided between the Minister of Health and Minister of Agriculture. The Minister of Health oversees food safety and the Minister of Agriculture is responsible for the animal health aspects of food-related legislation.<sup>38</sup> Though their mandate is much broader, in practice, the CFIA is primarily focused on maintaining a safe food supply.





**Photo left:** Suitcase of Indian Star  
Tortoises seized by the Wildlife  
Enforcement Directorate, Ontario Region.

Agencies have their own data collection system, with different requirements as to what information should be collected. This results in a patchwork of data that is challenging to analyze and interpret and therefore difficult to use effectively for the creation and evaluation of effective policy options.

Each government agency's limited jurisdiction and scope means gaps are created and no one agency truly owns the problem – which means no government agency truly owns responsibility for comprehensive solutions. CWS is only concerned with CITES listed species. The CFIA is mostly concerned about the importation of animals that might have a negative impact on food safety. As a result, wild animals imported for other purposes are not considered or properly screened for pathogens.

## Inconsistent CFIA policies

The CFIA tends to react to issues rather than adopting a precautionary approach, this becomes especially apparent with their policies around the importation of reptiles, amphibians, and rodents.

CFIA import restrictions exist for turtles and tortoises, due to them being potential transmitters of salmonella.<sup>39</sup> However, it has been widely acknowledged, including by the Public Health Agency of Canada (PHAC), that most reptiles (including lizards and snakes) are carriers and potential transmitters of salmonella.<sup>40</sup> Salmonella outbreaks linked to reptile pet ownership have occurred in Canada, including 92 cases in 2019 that were linked to snake ownership.<sup>41</sup> Yet, there are no restrictions on the importation of snakes and lizards. In fact, these reptiles are among the most commonly traded exotic pets into and within Canada.

Similarly, the Government of Canada restricts the import of salamanders because they can carry the *Batrachochytrium salamandrivorans fungus*.<sup>42</sup> This disease is highly contagious and known to have decimated native salamander populations in other countries.<sup>43</sup> Frogs are known to be carriers of a similar type of fungus called, *Batrachochytrium dendrobatidis*, which has been linked to mass mortalities of amphibians worldwide<sup>44</sup> but there are no trade restrictions in Canada despite the risk to native amphibian populations. The CBSA identified this policy gap in 2012 yet more than eight years on, no government action has been taken.<sup>45</sup>

Rodents can be imported into Canada mostly without permits or inspections. For example, capybaras have been sold online in Canada, even though they are known to carry dangerous ticks and to shed coronaviruses.<sup>46</sup> Canada also exports rodents and is actually one of the top three exporters of rodents to the US.<sup>47</sup> Rodents have been identified as one of the taxonomic orders of animals that harbour many zoonotic diseases,<sup>48</sup> and a 2015 study found that wild rodents were likely responsible for 58% of zoonotic disease spillover.<sup>49</sup>

# A patchwork of different regulations across the country

Regulations governing the use of wild animals differs by province, territory and even by municipality. It is possible to import animals into Canada which are prohibited at a provincial level. For example, data shows the importation of venomous snakes such as Indian cobras and large constrictor snakes such as reticulated pythons and African rock pythons, which are prohibited in most parts of the country.

Once animals are in Canada, provinces, territories and in some municipalities, individual laws and regulations dictate what is acceptable when it comes to the trading, breeding, and keeping of wildlife within their respective borders. This creates a patchwork of laws and regulations. For example, at the time of writing, Ontario and Northwest Territories do not regulate exotic

pets at all. Other provinces have developed stronger laws, largely in response to tragic incidents such as the death of two boys from asphyxiation by a python in New Brunswick, and a woman mauled to death by a tiger in British Columbia.<sup>50</sup> Many wildlife ownership restrictions have been created in reaction to catastrophic and even fatal events but this leaves major inconsistencies and gaps in protections for animals, people and the environment.

**Photo right:** Bear galls seized by the Wildlife Enforcement Directorate, Ontario Region.

## Canadian bears supply Traditional Asian Medicine trade

The mostly illegal trade in bear gall bladders is a good example of the patchwork of regulations that exist across Canada. The bile stored in bear gall bladders contains ursodeoxycholic acid which is used in Traditional Asian Medicine (TAM). Bears are cruelly farmed in China, Vietnam and South Korea for their bile which is extracted from live bears through a painful process. To meet the demand for bear bile products, and because of the decline of wild Asian black bears, black bears in Canada are also hunted for their gall bladders. In a 2018 survey of TAM shops in Toronto, four of 25 stores visited were found to stock bear bile products and two offered the opportunity to order a bear bile product. All manufactured products were made in either China or Japan and were aimed largely at Chinese nationals living overseas.<sup>51</sup>

While most provinces and territories have a form of regulation to prohibit the hunting of bears for their gall bladders, only five provinces (Alberta, British Columbia, Manitoba, Ontario, and Saskatchewan) fully ban any consumption or trade in bear bile. Newfoundland and Northwest Territories prohibit the commercial trade but allow personal use. In Nova Scotia it is legal to trade bear gall bladders if the necessary permits are obtained. In Quebec the export of bear gall bladders is prohibited because an individual cannot be in possession of a gall bladder (the bear must be attached to it). It is unclear what the policies are in New Brunswick, Nunavut, PEI, and Yukon.

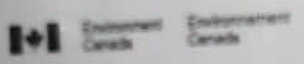
While Canadian penalties for the illegal trade in bear products range from \$4,000 to \$100,000 CAD and up to two years imprisonment, bear gall bladders have been and continue to be trafficked in Canada.

Avoid contributing to the illegal trade in endangered and threatened species...

Many species of animals and plants are in danger of extinction because of excessive commercial exploitation.

Know what permits are required before importing and exporting a CITES listed animal or plant - alive, dead, by-product, or derivative.

For more information, contact Environment Canada or ask Customs for a copy of the brochure "Endangered Species and the Traveller".



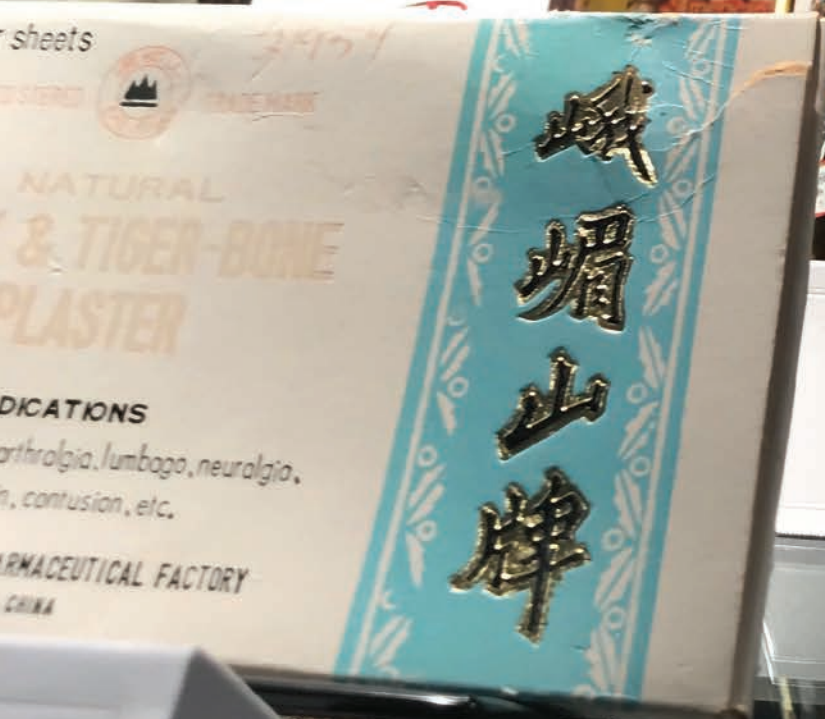
Nombre d'espèces d'animaux et de plantes sont menacées d'extinction du fait d'une excessive exploitation commerciale.

Sachez quels permis il faut, avant d'importer ou d'exporter un animal ou une plante figurant sur la liste de la CITES - que l'animal ou la plante soit à l'état mort ou vil, sous forme de sous-produit ou de produit dérivé.

Pour plus de renseignements, communiquez avec Environnement Canada ou demandez la brochure "Les espèces menacées d'extinction et le voyageur" du bureau des Douanes.



Bear Galls (Ursidae spp.)



白芨片  
Aizoon

# The true costs and risks of the wildlife trade

## Trading in cruelty

# 93%

of Canadians believe the wildlife trade is cruel and can cause animal suffering.<sup>ii</sup>

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The wildlife trade is inherently cruel. Animals are either poached from the wild or bred in captivity and there is suffering at every stage in their journey. Often, they are shipped huge distances, in cramped containers, with other animals of the same or other species, causing them enormous stress and exposing them to disease risk, which increases at every stage of the trade.<sup>52</sup> Many of these animals die before reaching their final destination. From capture or breeding to sale, cruelty is inherent for any wild animal that is kept in captivity. They are not able to exhibit their natural behaviours, eat their natural diet, and live in their natural habitats, which harms their physical and mental wellbeing.

**For example, snakes are often bred in 'rack-systems', kept in drawers upon drawers, often without the ability for them to stretch or engage in natural behaviour.**

For wildlife who survive the journey to become pets, many do not thrive in captivity. While data is sparse it is estimated that up to 75% of reptiles die within their first year as a pet.<sup>53</sup> In Canada a 75% mortality rate could affect more than 300,000 reptiles.<sup>iii</sup> Considering the large number of reptiles being traded, even a lower mortality rate would affect thousands of reptiles.

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<sup>i</sup> The survey was conducted online by Northstar Research Partners from July 17-July 20, 2020 using an amalgamated group of best-in-class panels. The study was conducted among a nationally representative sample of Canadian residents, aged 18-74 years. Study results are accurate to within +/- 3.1 percentage points, 19 times out of 20.

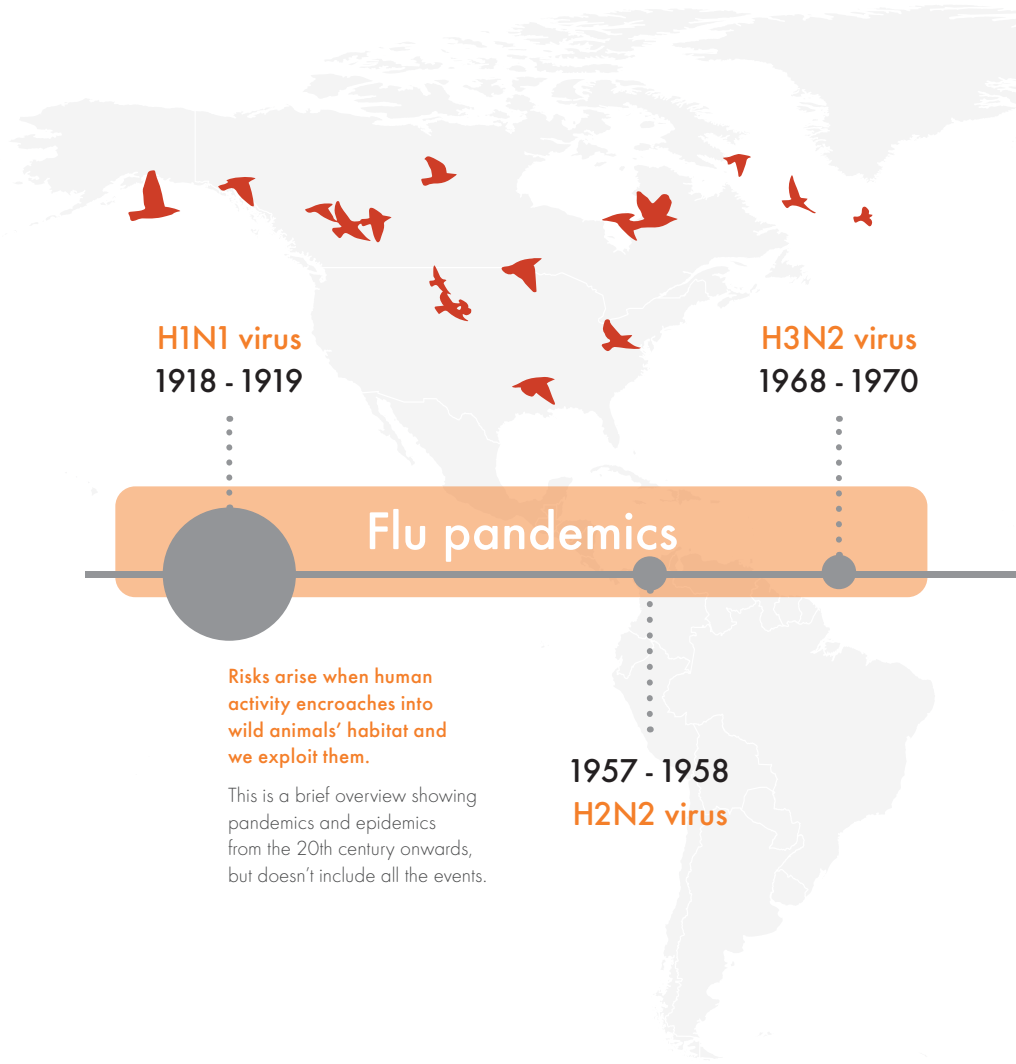
<sup>iii</sup> Calculations are based on 462,893 reptiles, kept in Canadian households (Risky Business, the unregulated exotic pet trade in Canada, 2019).



# Risks to human health and safety

# 89%

of Canadians believe the wildlife trade threatens human health and can cause pandemics.



In addition to the extreme animal cruelty of the wildlife trade there are also inherent health and safety risks for people involved in the trade as well as for all Canadians as the COVID-19 pandemic has shown us.

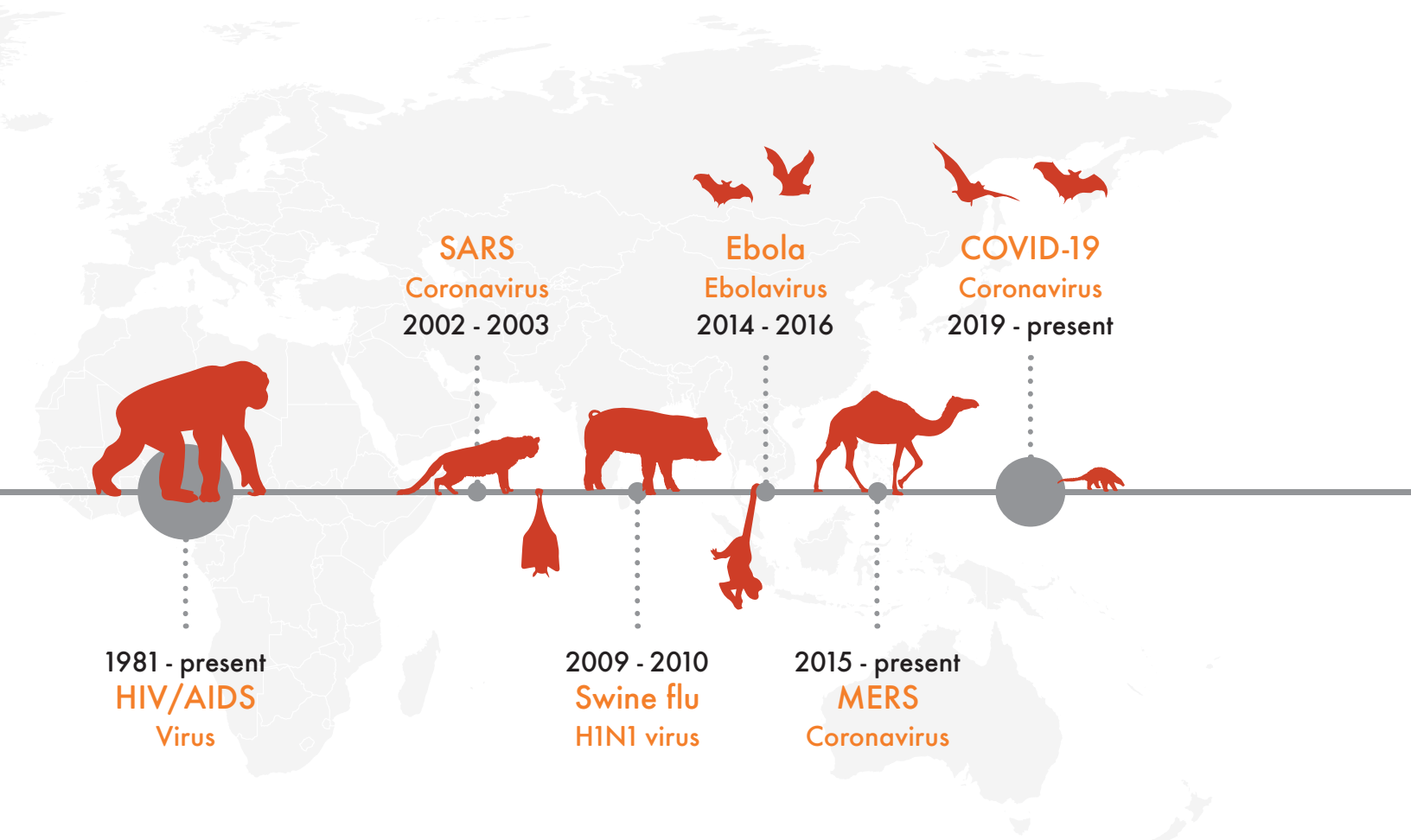
Millions of wild animals are captured, bred, and traded every year across the globe for a variety of purposes including food, traditional medicine and exotic pets and zoonotic diseases can be spread at every stage of the trade.

While only representing a section of the trade, wildlife markets have become the center of attention because of their link to the COVID-19 and SARS pandemics. These markets typically sell a diverse array of wildlife, who would never encounter each other in the wild. These animals are kept in crowded, unsanitary, and stressful conditions in close proximity to humans, creating the

ideal environment for the emergence and spread of infectious diseases which can then be transmitted to humans. This is an animal welfare problem at the core. When animals are stressed their immune system becomes compromised, making them more prone to contracting and shedding pathogens.<sup>54</sup> And since these markets draw crowds of local consumers and tourists from around the world into urban centres, they facilitate the spread of diseases.

We can no longer afford to ignore the fact that the COVID-19 pandemic and previous epidemics are fundamentally linked to our exploitation of animals and nature. In fact, 75% of all new or emerging infectious diseases over the past three decades originated from animals, and principally from wildlife.<sup>55</sup>

Habitat destruction facilitates contact with wildlife and as poachers move into more remote areas in search of the 'exotic',



1981 - present  
**HIV/AIDS**  
 Virus

**SARS**  
 Coronavirus  
 2002 - 2003

2009 - 2010  
**Swine flu**  
 H1N1 virus

**Ebola**  
 Ebolavirus  
 2014 - 2016

2015 - present  
**MERS**  
 Coronavirus

**COVID-19**  
 Coronavirus  
 2019 - present

new, and trendy species, new diseases can emerge.<sup>56</sup> Poachers who take wild animals from their natural environment, and who can deal in more than one species or class at a time, are often putting their own and the animals' safety and wellbeing at risk, because of their potential exposure to zoonotic diseases.

A recent preliminary study of the wildlife trade in Vietnam found the risk of transmitting coronaviruses increases significantly as animals are traded up the supply chain.<sup>57</sup> The longer animals are in the supply chain, the more stressed they become, the higher the risk of zoonotic disease development, transmission, and exposure.

Two major global reports released in 2020 by the UN Environment Program (UNEP) and the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) mentioned the wildlife trade as a key driver of pandemic risks.<sup>58 59</sup>

## Extinction and biodiversity loss

# 89%

of Canadians believe the wildlife trade threatens biodiversity and can cause species extinction.

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The drive to capture and profit from wildlife globally puts at risk the very ecosystems we all rely on for our very survival: according to a recent UN biodiversity report, as many as 1 million plant and animal species are currently threatened with extinction – or 11.5% of all species on the planet. We need our biodiversity to support food production, livelihoods, clean air and water, and so much more.<sup>60</sup> The wildlife trade is a clear contributor to species decline.

The global wildlife trade is also a risk to biodiversity in countries that import wildlife species. Imported wildlife can carry with them parasites, ticks and other pathogens that can severely impact and even decimate native species. When imported animals are released into the wild, they can wreak havoc on whole ecosystems.<sup>61</sup> In Canada, some imported wildlife, like the red-eared slider turtle, the American bullfrog and the European rabbit have become destructively invasive.<sup>62,63</sup>







## The legal trade fuels the illegal trade

The fact that many species can be legally bought and sold unfortunately does not always curb the illegal trade. On the contrary, it sometimes provides convenient cover for illegal activity.

A growing body of research shows that CITES-listed animals are subject to exploitation regardless of their protection. For example, ranches and wildlife breeding farms have been promoted to reduce the need of capturing animals from the wild. But studies of these farms in Indonesia and other areas showed that captive breeding quotas were often inaccurate or simply false, most if not all animals from these facilities were illegally wild caught and subsequently traded as legal captive bred species.<sup>64 65</sup> The variety of species, many of them similar looking also complicates matters. The identification of species can be challenging for enforcement officers,<sup>66</sup> especially when species are illegally smuggled. For example, a World Animal Protection investigation found African grey parrots were smuggled inside legal shipments of Green parrots. The boxes were covered with green gauze, giving the appearance that all birds were parrots who can be legally traded.<sup>67</sup>

Closer to home, a recent study of the import of bears and bear parts into the Czech Republic showed that Canada was a source of both legally and illegally traded bears and their parts. In 2004 the EU banned imports of brown bear trophies from British Columbia because it was concerned with unsustainable hunting practices. At the time, European residents were responsible for one third of the bears killed legally in the province.<sup>68</sup>

Also, in Canada, raids of turtle nesting sites likely supply “legal” sales domestically and illegal exports of eggs and newly hatched turtles. In 2020, in Kingston, Ontario, volunteers from a local turtle conservation group were shocked to find one morning that the nest protectors they had been maintaining had been raided by poachers, who likely reaped about 250 to 300 eggs. Poaching of turtle eggs has become a problem throughout the province.<sup>69</sup>



**Photo:** Wild animal products seized by the Wildlife Enforcement Directorate, Ontario Region.

## Enforcement: a major challenge

According to the 2018-2019 Wildlife Enforcement Directorate Annual Summary, Canada's wildlife enforcement unit has a paltry 85 field officers nationwide, tasked with covering over 10 million square kilometres.<sup>70</sup> Because Canada is sparsely populated, mostly along its borders, there is plenty of space for poaching and illegal trade to take place, and unsustainable and cruel practices like the black-market trade of bear gall bladders can go completely unnoticed. As governments cut spending, it's no wonder that a recent survey of wildlife directorate employees found that 65% felt the quality of their work is suffering from having to do more work with less resources.<sup>71</sup>

Understaffing isn't the only challenge in relation to enforcement. More training is needed to help customs officers to properly identify species. For example, recent research shows that in many cases "look-alike species" with trade quotas are being mistaken for ones that should not be traded at all.<sup>72</sup>

## No controls on breeding

The lack of adequate regulation and oversight has many consequences for animal welfare and human health. Regulations are often missing in areas of the wildlife trade, for example it is estimated that more than 300 exotic animal breeders are located in Canada. Most of these are reptile breeders, but there are also breeders of exotic birds, servals, sugar gliders, hedgehogs, and others.<sup>73</sup> These breeders often go unnoticed because in most jurisdictions there are no restrictions, regulations or bans on breeding activities. Complicating matters is the fact that many of these breeders operate out of their homes, making it challenging to enforce standards of care, that is, if local standards even exist.

The unregulated breeding of exotic animals has severe animal welfare consequences. The housing of wild animals is often inadequate and at times results in seizures by SPCA enforcement officers for animal cruelty.<sup>74</sup> Inbreeding practices that aid in the creation of certain colours or patterns (called 'morphs') in reptiles has resulted in genetic abnormalities like 'wobble head' syndrome, star gazing and spinal and skull deformities.<sup>75</sup>



**Photo:** Hereditary defects as a result of inbreeding in a Rosy Boa.  
© Dr. Adrian Walton

## Business is booming online

A quick search on the internet demonstrates the massive range of exotic pets available and how ubiquitous the trade is. World Animal Protection commissioned Tech4pets, a non-profit technological solutions company, to monitor exotic animal advertisements on ad-listing platforms like Kijiji. From January to October 2020, 77,170 exotic pet advertisements were found. Ontario reported the highest rate of advertisements with 42,313, but even Prince Edward Island, with a population of only 157,000 people, yielded 138 listings. Where these animals originated from, how they arrived in Canada, how they were bred, and where they end up is mostly unknown.

In addition to the domestic trade, Canadians can purchase wild animals from international sources online. Animals can be shipped from other countries, often by regular mail. Some require permits and health certificates, but many do not.<sup>76 77</sup>



## Exotic pet expos: wildlife markets in our backyard

In addition to the online trade and pet stores, exotic wild animals are also sold right in the open. Canada is home to exotic pet shows that sell amphibians, reptiles, birds, and small mammals. In 2019 some 20 reptile and bird trade expositions were held across Canada. These events resemble trade shows where vendors have booths and displays and interact with prospective purchasers as they buy and sell live animals. Animals are usually held in cramped, barren containers, not able to stretch out or move around much. Few have access to water or hiding places. A 2020 study of the welfare conditions of Ball pythons at reptile expos in Europe and North America, including Toronto, found that 76% of the observed Ball pythons did not have access to or have inadequate access to substrate, less than 0.1% of the pythons had access to any environmental enrichment, and none of the animals had access to water, shelter or were able to assume a fully elongated (stretched-out) body position.<sup>78</sup> While this study was focused on Ball pythons, many other species sold at these types of events suffer similar conditions.

These events are animal welfare horror stories, but they're also public health risks, as many animals of different species are crammed into small spaces, stressed by bright lights, noise and handling, creating the perfect conditions for zoonotic pathogens to thrive. They are Canada's version of a wildlife market.



## Mobile Live Animal Programs

A Mobile Live Animal Program (MLAP) is typically a commercial program or activity in which live animals are brought to a location for the entertainment of the public. MLAPs are usually mobile zoos, but can also include travelling exhibits, offsite presentations or demonstrations, live animal shows and petting zoos. It is estimated that around 150 MLAPs operate throughout Canada. There are many animal welfare concerns, which are exacerbated when animals are stressed, used in multiple programs at different locations within a short period of time, transported over long distances or used during interactions with the public. All these conditions and activities can detrimentally impact the physical and psychological health of animals.

There are also public health and safety concerns with these types of activities. Large constrictor snakes, crocodylians, wild dogs, and wild cats are commonly used in these programs and can all inflict significant harm. And while the public might be mostly unaware, their interaction with wild animals can expose them to pathogens like *E. coli*, campylobacter, salmonella and others, which can be carried and intermittently shed by reptiles, amphibians, hedgehogs and other animals common in MLAPs. In Canada, MLAPs are largely unregulated and often fly under the radar of authorities, meaning these companies mostly operate according to their own standards.

**Photo right:** Chameleon and tarantula at a Mobile Live Animal Program in Ontario.  
© Michèle Hamers





# Canadians overwhelmingly want change

Despite the dark reality of the massive, cruel, and risky trade in wild animals and Canada's complicity, there is reason for optimism. Recent polling conducted by Northstar Research Partners<sup>79</sup> and commissioned by World Animal Protection showed overwhelming Canadian support for government action:

**75%**

of Canadians support a permanent ban on wild animal markets

**70%**

support a permanent ban on commercial trade of wild animals

**70%**

support stronger laws to reduce the wild animal trade in Canada

**90%**

oppose trophy hunting

**80%**

oppose the capturing, breeding, and trading of wild animals as exotic pets or for their fur

**70%**

of Canadians oppose of the use of wild animals for medicinal purposes



## Change is happening around the world

If there is any silver lining to this pandemic, it has both cast a light on the cruel and risky wildlife trade and given governments the impetus to take bold measures. The Netherlands, for example, whose mink farming industry has been heavily affected by the Coronavirus, has decided to accelerate the phase-out of mink farms from 2024 to March 2021.

### **Other governments around the world are also seizing the moment.**

- The US and Australia have called for a permanent shutdown of wildlife markets. The Preventing Future Pandemics Act, a bipartisan bill, introduced in the US House of Representatives in September 2020 would, if passed, shut down commercial wildlife markets and the associated trade for human consumption.<sup>80</sup>
- In February 2020, China's National People's Congress (NPC) passed a decision to permanently ban the farming and consumption of many terrestrial wild animals with stronger enforcement and to crack down on the illegal wildlife trade. The Chinese government is also helping farmers transition out of wildlife farming.<sup>81 82</sup>
- And the German federal parliament has agreed to take appropriate measures to reduce the demand of wild animals for exotic pets and to review and improve regulations, including a ban on the sale of wild caught animals and the establishment of a centralized trade register.<sup>83</sup>

Canada must step up to the plate and do its part. It is welcome news that Canada committed to curb biodiversity loss by protecting 25% of Canada's land and oceans by 2025 and 30% by 2030. Curbing the wildlife trade would help fulfil this commitment in addition to being one of the most effective strategies for preventing future pandemics.







# Conclusion and recommendations

A ban on the global commercial wildlife trade is ultimately the best way to protect wild animals, human health and biodiversity but meanwhile important incremental steps can be taken by the government to move in that direction. Currently, most government policies related to animal welfare and zoonotic disease risk, are generally reactive in nature, responding to a threat, catastrophe, or harmful situation by creating rules and laws that prevent it from happening again. The problem with this approach, as we have seen with COVID-19, is that the damage is already done. Instead, governments should adopt a precautionary 'first, do no harm' approach and at the same time safeguard the welfare and health of humans, animals, and the planet.

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## The positive list approach

A regulatory framework to curb the wildlife trade that incorporates a precautionary approach and is gaining momentum around the world is the positive list.

Rather than banning specific species because they have demonstrated safety or welfare impacts, a positive list is comprised of animals that have been evaluated to meet all the safety and welfare criteria that are established in advance. Criteria include, but are not limited to, animal welfare, public health and safety, environmental and biodiversity protection, and available species-specific expertise. Furthermore, if there is insufficient independent peer-reviewed scientific data available or a conflict between data exists to determine if a species meets the criteria, the trade and use of the species will be deemed inappropriate and prohibited until further information becomes available proving there are no risks.

Once a list of species is established it will also shift the responsibility from governments to the people who want to use animals, since they will have to provide evidence that

new species meet all criteria and can therefore be traded safely and humanely. And because the wildlife trade is a constantly evolving market that changes faster than regulatory bodies can make decisions, a positive list approach does not leave species unprotected and prevents immediate exploitation of newfound species.

It's not just a good idea in theory. Positive lists have been adopted by countries in Europe and Asia, as well as in Australia, at state levels in the US and here in Canada at provincial and municipal levels. In fact, the 'positive list' approach is common in many industries (e.g. to ensure the safety of food additives, medicine, toys, etc.) and ensures that products are demonstrably safe before entering the consumer market.

**Photo left:** A bearded dragon, a common pet in Canada.  
© iStock.

# “One Health, One Welfare” approach

The positive list is an example of a “One Health, One Welfare” approach to the wildlife trade. This approach recognizes the many interconnections between human welfare, animal welfare and the integrity of the environment.<sup>84 85</sup> For example, we know that healthy ecosystems not only sustain the species and habitats within them, they also provide clean air, water, and food for humans. Similarly, when wildlife is captured, made to suffer, and sold for human enjoyment, the diseases that result from their ill treatment end up causing human suffering and death too. When we decide how to approach any issue that relates to this interdependence, a “One Health, One Welfare” approach asks us to put that same interdependence at the very centre of our decision-making.

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**For all these reasons, World Animal Protection and other organizations collectively representing over half a million Canadians, call on the federal government to take the following steps to combat the cruel and risky wildlife trade:**

- 1 Support and urge other G20 countries to support an immediate and permanent closure of wild animal markets.
- 2 Commit at the G20 to end the international trade in wild animals and wild animal products that could contribute to the spread of zoonotic disease and ask global institutions and bodies and their national parties to put in place mechanisms to develop, facilitate and implement this ban.
- 3 Curb the import and domestic trade in wild animals and wild animal products that could contribute to the spread of zoonotic disease in Canada.
  - a. Establish and adequately fund a comprehensive and transparent system for tracking and monitoring the import, export and sale of live wild animals and their parts and derivatives within Canada.
  - b. Work with provinces and territories to mitigate inherent risks to public health, animal welfare and our natural environment by harmonizing and strengthening regulations to drastically reduce captive breeding, transport, and the physical and online trade in wild animals.
  - c. Strengthen enforcement of both the legal and illegal wildlife trade through improved coordination across agencies and federal/provincial/territorial jurisdictions and increased funding and resources.



**Photo above:** A family of wild smooth coated otters.  
© CC0 Creative Commons



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Now more than ever, Canadians want to see their government act to protect their health and wellbeing, and they want the same for the wild animals that share this world with us. Prevention must lie at the heart of a future approach. Curbing the wildlife trade is one of the most effective strategies to protect animals from the cruelty of the trade, to stop further biodiversity loss and to avoid future pandemics caused by zoonotic diseases.

World Animal Protection is a ready and willing partner in forging a safer and more humane future for us all.

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## References

- 1 Government of Canada (2020) Coronavirus disease 2019 (COVID-19): epidemiology update <https://health-infobase.canada.ca/covid-19/epidemiological-summary-covid-19-cases.html>. Accessed on 22 Jan 2021.
- 2 Johns Hopkins University & Medicine Coronavirus Resource Center (2020) COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU) <https://coronavirus.jhu.edu/map.html>. Accessed on 22 Jan 2021.
- 3 The World Bank (2020) The global economic outlook during the COVID-19 pandemic: A changed world <https://www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world>. Accessed on 03 Dec. 2020.
- 4 Andersen KG, Rambaut A, Lipkin WI, Holmes EC, Garry RF. The proximal origin of SARS-CoV-2. *Nature medicine*. 2020 Apr;26(4):450-2.
- 5 World Health Organization (2019) Situation report <https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200423-sitrep-94-covid-19.pdf>. Accessed on 30 Nov. 2020.
- 6 Bell D, Robertson S, Hunter PR. Animal origins of SARS coronavirus: possible links with the international trade in small carnivores. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences*. 2004 Jul 29;359(1447):1107-14.
- 7 Jones KE, Patel NG, Levy MA, Storeygard A, Balk D, Gittleman JL, Daszak P. Global trends in emerging infectious diseases. *Nature*. 2008 Feb;451(7181):990-3.
- 8 Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) (2020) IPBES workshop on biodiversity and pandemics: executive summary <https://ipbes.net/sites/default/files/2020-10/IPBES%20Pandemics%20Workshop%20Report%20Executive%20Summary%20Final.pdf>. Accessed on 30 Nov. 2020.
- 9 National Geographic (2020) To prevent the next pandemic, it's the legal wildlife trade we should worry about <https://www.nationalgeographic.com/animals/2020/05/10-to-prevent-next-pandemic-focus-on-legal-wildlife-trade/>. Accessed on 03 Dec. 2020.
- 10 Centers for Disease Control and Prevention (2018) Monkeypox, 2003 US outbreak <https://www.cdc.gov/poxvirus/monkeypox/outbreak.html>. Accessed on 28 Nov. 2020.
- 11 BBC News (2017) EU ban on bird imports sees 'massive' cuts in global trade <https://www.bbc.com/news/science-environment-42068258>. Accessed on 03 Dec. 2020.
- 12 EcoWatch (2016) Elephants being slaughtered for ivory faster than they can reproduce <https://www.ecowatch.com/elephants-being-slaughtered-for-ivory-faster-than-they-can-reproduce-1882186575.html>. Accessed on 30 Nov. 2020.
- 13 Canadian Geographic (2017) The illegal wildlife trade is a biodiversity apocalypse <https://www.canadiangeographic.ca/article/illegal-wildlife-trade-biodiversity-apocalypse#:~:text=An%20estimated%20annual%20%24175%2Dbillion,radically%20alter%20the%20animal%20kingdom>. Accessed on 27 Nov. 2020.
- 14 United Nations. UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating'. 2020; <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>
- 15 Centre for Biological Diversity (2020) Dealing in disease: How US wildlife imports fuel global pandemic risks <https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease-Center-wildlife-imports-report-9-28-20.pdf>. Accessed on 26 Nov. 2020.
- 16 McGowan, P., 2001, CITES Review of Significant Trade 2006, Birdlife International 2015, CITES 2013.
- 17 World Animal Protection (2019) Risky business, the unregulated exotic pet trade in Canada
- 18 World Animal Protection (2020) Cruel bear bile industry thriving despite pandemic risks
- 19 Canadian Broadcasting Corporation (2018) 100 Quebec black bears slaughtered as part of gall-bladder trafficking ring, officials say <https://www.cbc.ca/news/canada/montreal/black-bear-poaching-ring-1.4754071>. Accessed on 25 Nov. 2020.
- 20 Humane Society International and the Humane Society of the United States (2016) Trophy hunting by the numbers [https://www.hsi.org/wp-content/uploads/assets/pdfs/report\\_trophy\\_hunting\\_by\\_the.pdf](https://www.hsi.org/wp-content/uploads/assets/pdfs/report_trophy_hunting_by_the.pdf). Accessed on 03 Dec. 2020.
- 21 Statistics Canada (2020) Supply and disposition of mink and fox on fur farms <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210011601>. Accessed on 03 Dec. 2020.
- 22 Ottawa Citizen (2020) Canada's mink farms should be shut down over potential COVID link <https://ottawacitizen.com/opinion/hamers-canadas-mink-farms-should-be-shut-down-over-potential-covid-link>. Accessed on 28 Nov. 2020.
- 23 The Star (2020) Dutch government to shut down all mink farms by next year <https://www.thestar.com/news/world/europe/2020/08/28/dutch-government-to-shut-down-all-mink-farms-by-next-year.html#:~:text=THE%20HAGUE%2C%20Netherlands%20D%20The%20Dutch,and%20health%20minister%20announced%20Friday>. Accessed on 03 Dec. 2020.
- 24 Johnson CK, Hitchens PL, Pandit PS, Rushmore J, Evans TS, Young CC, Doyle MM. Global shifts in mammalian population trends reveal key predictors of virus spillover risk. *Proceedings of the Royal Society B*. 2020 Apr 8; 287(1924):20192736.
- 25 CITES (2020) Trade database <https://trade.cites.org/>. Downloaded on 19 Oct. 2020.
- 26 IBID
- 27 IBID
- 28 World Organization for Animal Health (2018) Do you know the World Organization for Animal Health [https://www.oie.int/fileadmin/Home/eng/Media\\_Center/docs/pdf/Key\\_Documents/EN\\_LeafletOIE\\_web.pdf](https://www.oie.int/fileadmin/Home/eng/Media_Center/docs/pdf/Key_Documents/EN_LeafletOIE_web.pdf). Accessed on 03 Dec. 2020.
- 29 CITES, What is CITES <https://cites.org/eng/disc/what.php>. Accessed on 24 Nov. 2020.
- 30 CITES (2015) World Animal Health Organisation and CITES agree to collaborate on animal health and welfare issues worldwide to safeguard biodiversity and protect animals [https://cites.org/eng/node/18857#:~:text=and%20protect%20animals,World%20Animal%20Health%20Organisation%20\(OIE\)%20and%20CITES%20agree%20to%20collaborate,not%20an%20official%20document](https://cites.org/eng/node/18857#:~:text=and%20protect%20animals,World%20Animal%20Health%20Organisation%20(OIE)%20and%20CITES%20agree%20to%20collaborate,not%20an%20official%20document). Accessed on 26 Nov. 2020.
- 31 CITES, The CITES species <https://cites.org/eng/disc/species.php#:~:text=Over%2038%2C700%20species%20E2%80%93%20including%20roughly,in%20the%20three%20CITES%20Appendices>. Accessed on 26 Nov. 2020.
- 32 IUCN Red list, Summary Statistics <https://www.iucnredlist.org/resources/summary-statistics>. Accessed on 01 Dec. 2020.

**Photo left:** An African grey parrot in the wild.  
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- <sup>33</sup> BBC (2010) Has CITES had its day? <http://news.bbc.co.uk/2/hi/science/nature/8606011.stm>. Accessed on 03 Dec. 2020.
- <sup>34</sup> World Animal Protection, 2018 (2018) Suffering at scale - pangolin poaching for the traditional medicine trade, Investigating pangolin hunting in Assam, India.
- <sup>35</sup> Government of Canada, Canadian Border services Agency <https://www.cbsa-asfc.gc.ca/menu-eng.html>. Accessed on 01 Dec. 2020.
- <sup>36</sup> Government of Canada, Trade in protected species: relevant authorities [https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/relevant-authorities.html#\\_01](https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/relevant-authorities.html#_01). Accessed on 01 Dec. 2020.
- <sup>37</sup> Government of Canada, Canadian Food Inspection Agency <https://www.inspection.gc.ca/eng/1297964599443/1297965645317>. Accessed on 01 Dec. 2020.
- <sup>38</sup> Government of Canada, Canadian Food Inspection Agency (2019) Ministerial transition materials <https://www.inspection.gc.ca/about-cfia/organizational-structure/ministerial-transition-materials/eng/1582823517247/1582823517853#a12>. Accessed on 02 Dec. 2020.
- <sup>39</sup> Government of Canada, Canadian Food Inspection Agency (2019) Travelling with frogs, reptiles or turtles: import rules <https://www.inspection.gc.ca/animal-health/terrestrial-animals/imports/import-policies/live-animals/pet-imports/travelling-with-frogs-reptiles-or-turtles/eng/1326658752555/1326658911065>. Accessed on 03 Dec. 2020.
- <sup>40</sup> Government of Canada, Public Health Agency of Canada (2014) Salmonella and Reptiles <https://www.canada.ca/en/publichealth/services/food-safety/fact-sheet/salmonella-reptiles.html>. Accessed on 01 Dec. 2020.
- <sup>41</sup> Government of Canada, Public Health Agency of Canada (2019) Public Health Notice: Outbreak of Salmonella infections linked to snakes and rodents <https://www.canada.ca/en/publichealth/services/publichealth-notices/2019/outbreak-salmonella-infections-snakes-rodents.html>. Accessed on 03 Dec. 2020.
- <sup>42</sup> Government of Canada, Environment and Natural Resources, Wildlife, plants and species (2018) Import restrictions on salamanders <https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/import-species-harmful-ecosystems/restriction-salamanders.html>. Accessed on 01 Dec. 2020.
- <sup>43</sup> Scientific American (2013) Fire salamanders in the Netherlands wiped out by newly discovered fungus, <https://blogs.scientificamerican.com/extinction-countdown/fire-salamanders-in-the-netherlands-wiped-out-by-newly-discovered-fungus/>. Accessed on 26 Nov. 2020.
- <sup>44</sup> National Geographic (2019) Amphibian 'apocalypse' caused by most destructive pathogen ever [https://www.nationalgeographic.com/animals/2019/03/amphibian-apocalypse-frogs-salamanders-worst-chytrid-fungus/?awc=19533\\_1606848075\\_62a51871b568e05e7552b6e47f162bd6](https://www.nationalgeographic.com/animals/2019/03/amphibian-apocalypse-frogs-salamanders-worst-chytrid-fungus/?awc=19533_1606848075_62a51871b568e05e7552b6e47f162bd6). Accessed on 26 Nov. 2020.
- <sup>45</sup> Gerson H. International trade in amphibians: a customs perspective. *Alytes*. 2012 Jul 1;29.
- <sup>46</sup> Vancouver Sun (2020) Canada needs to take the threat of disease from wildlife seriously <https://ottawacitizen.com/opinion/fricker-canada-needs-to-take-the-threat-of-disease-from-wildlife-seriously>. Accessed on 23 Nov. 2020.
- <sup>47</sup> Centre for Biological Diversity (2020) Dealing in disease: How US wildlife imports fuel global pandemic risks [https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease\\_Center-wildlife-imports-report-9-28-20.pdf](https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease_Center-wildlife-imports-report-9-28-20.pdf). Accessed on 26 Nov. 2020.
- <sup>48</sup> Johnson CK, Hitchens PL, Pandit PS, Rushmore J, Evans TS, Young CC, Doyle MM. Global shifts in mammalian population trends reveal key predictors of virus spillover risk. *Proceedings of the Royal Society B*. 2020 Apr 8;287(1924):20192736.
- <sup>49</sup> Centre for Biological Diversity (2020) Dealing in disease: How US wildlife imports fuel global pandemic risks [https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease\\_Center-wildlife-imports-report-9-28-20.pdf](https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease_Center-wildlife-imports-report-9-28-20.pdf). Accessed on 26 Nov. 2020.
- <sup>50</sup> World Animal Protection (2019) Risky business, the unregulated exotic pet trade in Canada
- <sup>51</sup> World Animal Protection (2020) Cruel cures, the industry behind bear bile production and how to end it
- <sup>52</sup> Huong NQ, Nga NT, Van Long N, Luu BD, Latinne A, Pruvot M, Phuong NT, Van Hung V, Lan NT, Hoa NT, Minh PQ. Coronavirus testing indicates transmission risk increases along wildlife supply chains for human consumption in Viet Nam, 2013-2014. *bioRxiv*. 2020 Jan 1.
- <sup>53</sup> Toland E, Warwick C, Arena PC. Pet hate: Exotic pet-keeping is on the rise despite decades of initiatives aimed at reducing the trade of exotic and rare animals. Three experts argue that urgent action is needed to protect both animals and ecosystems. *Biologist*. 2012;59(3):14-8.
- <sup>54</sup> Hing S, Narayan EJ, Thompson RA, Godfrey SS. The relationship between physiological stress and wildlife disease: consequences for health and conservation. *Wildlife Research*. 2016 Apr 20;43(1):51-60.
- <sup>55</sup> Jones KE, Patel NG, Levy MA, Storeygard A, Balk D, Gittleman JL, Daszak P. Global trends in emerging infectious diseases. *Nature*. 2008 Feb;451(7181):990-3.
- <sup>56</sup> Centre for Biological Diversity (2020) Dealing in disease: How US wildlife imports fuel global pandemic risks [https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease\\_Center-wildlife-imports-report-9-28-20.pdf](https://www.biologicaldiversity.org/programs/international/pdfs/Dealing-in-Disease_Center-wildlife-imports-report-9-28-20.pdf). Accessed on 26 Nov. 2020.
- <sup>57</sup> Huong NQ, Nga NT, Van Long N, Luu BD, Latinne A, Pruvot M, Phuong NT, Van Hung V, Lan NT, Hoa NT, Minh PQ. Coronavirus testing indicates transmission risk increases along wildlife supply chains for human consumption in Viet Nam, 2013-2014. *bioRxiv*. 2020 Jan 1.
- <sup>58</sup> United Nations Environment Programme and International Livestock Research Institute (2020) Preventing the next pandemic: zoonotic diseases and how to break the chain of transmission.
- <sup>59</sup> Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) (2020) IPBES workshop on biodiversity and pandemics, workshop report
- <sup>60</sup> National Geographic (2019) Global Biodiversity is in Crisis, but There is Hope for Recovery <https://blog.nationalgeographic.org/2019/09/23/global-biodiversity-is-in-crisis-but-there-is-hope-for-recovery/#:~:text=The%20Earth%20is%20facing%20a,change%20and%20unprecedented%20biodiversity%20loss,&text=A%20recent%20UN%20report%20on,the%20past%2010%20million%20years>. Accessed on 27 Nov. 2020.
- <sup>61</sup> Canadian Geographic (2017) The illegal wildlife trade is a biodiversity apocalypse <https://www.canadiangeographic.ca/article/illegal-wildlife-trade-biodiversity-apocalypse#:~:text=An%20estimated%20annual%20%24.175%2Dbillion,radically%20alter%20the%20animal%20kingdom>. Accessed on 27 Nov. 2020.
- <sup>62</sup> Invasive Species Council of BC, Be a responsible pet owner! <https://bcinvasives.ca/commitments/dont-let-it-loose>. Accessed on 03 Dec. 2020.
- <sup>63</sup> IBID

- <sup>64</sup> Lyons JA, Natusch DJ. Wildlife laundering through breeding farms: illegal harvest, population declines and a means of regulating the trade of green pythons (*Morelia viridis*) from Indonesia. *Biological Conservation*. 2011 Dec 1;144(12):3073-81.
- <sup>65</sup> Nijman V, Shepherd CR. Wildlife Trade from ASEAN to the EU: Issues with the Trade in Captive-Bred Reptiles from Indonesia (TRAFFIC Europe Report for the EC, Brussels, 2010).
- <sup>66</sup> Alfino S, Roberts DL. Estimating identification uncertainties in CITES 'look-alike' species. *Global Ecology and Conservation*. 2019 Apr 1;18:e00648.
- <sup>67</sup> World Animal Protection (2019) Wild at heart, the Cruelty of the exotic pet trade
- <sup>68</sup> Shepherd CR, Kúřnerová J, Cajthaml T, Frouzová J, Gomez L. Bear trade in the Czech Republic: an analysis of legal and illegal international trade from 2005 to 2020. *European Journal of Wildlife Research*. 2020 Dec;66(6):1-0.
- <sup>69</sup> CTV News (2020) 'Devastating' loss of turtle eggs by poachers, says Kingston, Ont. conservation group <https://ottawa.ctvnews.ca/devastating-loss-of-turtle-eggs-by-poachers-says-kingston-ont-conservation-group-1.5078848>. Accessed on 27 Nov. 2020.
- <sup>70</sup> Environment and Climate Change Canada (2020) Wildlife enforcement directorate annual summary 2018-2019 [http://publications.gc.ca/collections/collection\\_2020/eccc/En5-1-2019-eng.pdf](http://publications.gc.ca/collections/collection_2020/eccc/En5-1-2019-eng.pdf). Accessed on 03 Dec. 2020.
- <sup>71</sup> Vancouver Sun (2020) Canada needs to take the threat of disease from wildlife seriously <https://ottawacitizen.com/opinion/fricker-canada-needs-to-take-the-threat-of-disease-from-wildlife-seriously>. Accessed on 26 Nov. 2020.
- <sup>72</sup> Alfino S, Roberts DL. Estimating identification uncertainties in CITES 'look-alike' species. *Global Ecology and Conservation*. 2019 Apr 1;18:e00648.
- <sup>73</sup> World Animal Protection (2020) Desktop research exotic pet breeders. Unpublished data.
- <sup>74</sup> CBC (2019) 13 servals found living in 'horrific conditions' seized from B.C. breeder <https://www.cbc.ca/news/canada/british-columbia/serval-cats-seized-little-fort-bc-1.5198230#:~:text=More%20than%20a%20dozen%20exotic,and%20injured%20animals%20being%20sold>. Accessed on 03 Dec. 2020.
- <sup>75</sup> World Animal Protection (2020) Suffering in silence, uncovering the cruelty of the global trade in Ball pythons
- <sup>76</sup> Government of Canada, Canadian Food Inspection Agency (2019) Travelling with frogs, reptiles or turtles: import rules <https://www.inspection.gc.ca/animal-health/terrestrial-animals/imports/import-policies/live-animals/pet-imports/travelling-with-frogs-reptiles-or-turtles/eng/1326658752555/1326658911065>. Accessed on 03 Dec. 2020.
- <sup>77</sup> Government of Canada, Canadian Food Inspection Agency (2019) Travelling with pet rodents: import rules <https://www.inspection.gc.ca/animal-health/terrestrial-animals/imports/import-policies/live-animals/pet-imports/travelling-with-pet-rodents/eng/1331869343204/1331869905125>. Accessed on 03 Dec. 2020.
- <sup>78</sup> D'Cruze N, Paterson S, Green J, Megson D, Warwick C, Coulthard E, Norrey J, Auliya M, Carder G. Dropping the Ball? The Welfare of Ball Pythons Traded in the EU and North America. *Animals*. 2020 Mar;10(3):413.
- <sup>79</sup> Northstar (2020) Canadians' Attitudes Towards a Global Wildlife Ban. [https://dkt0rvnu67rqi.cloudfront.net/cdn/ff/-YtngchPNmOyQZF-1kmL-HV0dOMCyjY4YU9X7cwlwp5o/1595614885/public/media/Glob-al\\_Wildlife\\_Ban\\_Study\\_Report\\_World\\_Animal\\_Protection\\_July\\_2020.pdf](https://dkt0rvnu67rqi.cloudfront.net/cdn/ff/-YtngchPNmOyQZF-1kmL-HV0dOMCyjY4YU9X7cwlwp5o/1595614885/public/media/Glob-al_Wildlife_Ban_Study_Report_World_Animal_Protection_July_2020.pdf). Accessed on 25 Nov. 2020.
- <sup>80</sup> Cory Booker (2020) Booker Introduces Bipartisan Legislation to Shut Down Commercial Wildlife Markets Which Pose a Threat to Global Public Health <https://www.booker.senate.gov/news/press/booker-introduces-bipartisan-legislation-to-shut-down-commercial-wildlife-markets-which-pose-a-threat-to-global-public-health>. Accessed on 02 Dec. 2020.
- <sup>81</sup> Mongabay (2020) China offers buyout to wildlife farmers in response to pandemic <https://news.mongabay.com/2020/05/china-offers-buyouts-to-wildlife-farmers-in-response-to-pandemic/>. Accessed on 02 Dec. 2020.
- <sup>82</sup> China Daily (2020) Full Text: Remarks by President Xi Jinping at 15th G20 Leaders' Summit <https://www.chinadaily.com.cn/a/202011/22/WS5fb99cc7a31024ad0ba959d1.html>. Accessed on 02 Dec. 2020.
- <sup>83</sup> Deutscher Bundestag (2020) Schutz von exotischen Tieren bei Handel und Haltung verbessern - Ursachen für Pandemien bekämpfen [https://www.cdcsu.de/sites/default/files/2020-11/Antrag\\_Wildtierhandel.pdf](https://www.cdcsu.de/sites/default/files/2020-11/Antrag_Wildtierhandel.pdf). Accessed on 27 Nov. 2020.
- <sup>84</sup> Fraser S. (2016) What do we mean by "One Welfare"? <https://www.oie.int/eng/animal-welfare-conf2016/Abstracts/2.1.%20Fraser.pdf>. Accessed on 02 Dec. 2020.
- <sup>85</sup> NFAHW Council, National Farmed Animal Health and Welfare Council, One welfare <https://www.ahwcouncil.ca/work-areas/one-welfare>. Accessed on 02 Dec. 2020.

**We are** World Animal Protection.

**We end** the needless suffering of animals.

**We influence** decision makers to put animals on the global agenda.

**We help** the world see how important animals are to all of us.

**We inspire** people to change animals' lives for the better.

**We move** the world to protect animals.

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