CHAPTER 2

Ecoviolence Against Fauna: The Illegal Wildlife Trade

The value of an illegal live gyrfalcon? An estimated $360,000. The value of a kilo of heroin, the most expensive narcotic by weight? About $135,050 … wildlife crime is big business.

From “The Illegal Wildlife Trade is a Biodiversity Apocalypse”. Anthony, 2017

INTRODUCTION

In this chapter, we explore the transnationalization of the illegal wildlife trade (IWT), examining how such crimes engender ecoviolence and harm on a global scale. A sound understanding of the political economy of IWT aids our theorization of this crime from both the environmental justice and human security perspectives, which in turn are theoretically and pragmatically adept at identifying the drivers, pressures, sources, and impacts of IWT, opening new vistas of green criminological inquiry. Research into the transnationalization of IWT addresses environmental injustice against rare and iconic species and the people who rely on them for food and employment; the interconnectedness between the global demand for such species and the socio-economic drivers of animal smuggling and trafficking; and potential threats to ecosystems and human health, such as the spread of invasive alien species and newly emerging infectious diseases. IWT can be located within a larger constellation of themes such as speciesism, international relations and law, environmental politics, political geography, and ecology. The ecoviolence unleashed through

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IWT conforms to the choreographed cadence of high profit margins and an accelerated rate of consumption in expanding markets; the ecoviolence associated with IWT is a direct result of socio-cultural constructions of the economic value of rare and endangered species.

The trade of rare species has probably occurred since they were first discovered, and it was not until the establishment of the International Union for the Conservation of Nature and Natural Resources (IUCN, previously known as the World Conservation Union) in the late 1940s that the trade began to be taken seriously (see Sollund 2019; Schneider 2012); the subsequent adoption of the Convention on International Trade of Endangered Species of Fauna and Flora (CITES) in the early 1970s was a recognition of the damage the trade was doing to species populations and ecosystems. IWT, of late, has garnered the attention of green criminologists due to its rise within globalized and expanded markets—especially as a result of the World Wide Web and the digitalization of animal trafficking (Sollund 2017, 2019; Eliason 1999; Pires 2012; Warchol 2004; Wellsmith 2011). The procurement of rare and endangered species has become a pastime for corporate barons, actors, and the sons of heads of state; yet its impact is felt largely at a very local level, where entire communities lose access to precious resources, cultural referents, development opportunities, and other important survival and growth necessities. As with other forms of ecoviolence examined in this book, there are intimate ties between wildlife trafficking, money laundering, and other crimes. The desire to acquire—to possess artifacts that are derived from endangered species, whether for supposed medicinal purposes, as financial investments, as unique food experiences, or as simple vainglorious trophies—drives the trade as strongly as it is driving coveted species into oblivion. It can also lead to the spread of zoonotic infectious diseases: for example, early evidence (in April 2020) suggests the calamitous pandemic of the novel coronavirus COVID-19 may have spread from China after human contact with illegally imported Malayan pangolins (Andersen et al. 2020; it seems likely that bats were involved at some point, as well). We are just beginning to understand the full impact of this transnational ecoviolence.

**The Contemporary IWT**

Though often overlooked and overshadowed by the human misery caused by human trafficking, drug, and weapons smuggling (Parce and Woodiwiss 1993), there has been an unprecedented uptick in the illegal
wildlife trade in the past 40 years, hampering decades of conservation efforts across the globe. Wildlife crime has become an issue of paramount importance among nation-states, intergovernmental organizations, NGOs and other members of civil society alike, leading to repeated calls for the global community to take action against the complex and dangerous international networks that are often involved. Defining IWT, however, is no easy feat because the act of trafficking and smuggling wildlife across borders affects not only terrestrial and marine animals, but plants, the environment, communities’ livelihoods, food security, national security, and, of course, sustainable development (IUCN 2016; Dickson 2008; Brashares et al. 2014). Phelps et al. (2016) summarize some of IWT’s defining characteristics—namely, the harvest, trade and exploitation of wild, biological specimens through activities encompassing the contravention of environmental regulations and government legislation, the violation of rules governing private/community resource-holder rights, and the non-observance of international agreements such as CITES.

Valued at approximately $7 billion to $23 billion annually, IWT is an extremely profitable transnational crime, trailing only behind the trade of drugs, humans, and arms (Lehmacher 2016). It is also referred to as a predicate offense, according to the 2018 London Conference on Illegal Wildlife. Predicate offenses are those activities which are part of bigger criminal operations, such as money laundering. Whether it is international wildlife trafficking, smuggling, or poaching, the global decline of wildlife species is in part a direct result of networked criminals trying to avail themselves of a lucrative international pet market and collectors who equate the ownership of certain animal species with socio-economic and cultural status (Sollund 2011; Pires and Clarke 2011; Herbig 2010). Aside from the socio-economic and cultural demand-side drivers of IWT, there are far more nuanced and complex explanations for its transnationalization—nämlich, the resource needs of many impoverished communities which require access to wildlife for protein, leather goods, medicinal ingredients, and other necessities. IWT, it bears emphasizing, does not take place in a vacuum. In fact, 80 countries have recognized wildlife trafficking as a type of organized crime which demands political support from all governments, because IWT produces ramifications such as corruption, stagnated economic growth, and the flow of money into the black market—all of which affect the political and economic security of states (Meers 2018).
In the digital age, organized criminal networks are becoming resilient and adaptable to law enforcement activities, forcing policing agencies to take heed of the importance of social media in intelligence development. Platforms such as Facebook are being used to arrange the illegal sale of endangered species. The Royal Society (2018) has predicted that wildlife trafficking will follow similar trends in the illicit market of narcotics and terrorism, employing encrypted online communications and cryptocurrencies such as Bitcoin (see also Felbab-Brown for similarities between the global narcotics and wildlife trades). A pressing concern related to the digitalization of IWT is the use of certain countries as nodes in the complex web of internet-based trafficking. The web and the “dark web” or “darknet” make IWT and its perpetrators extremely difficult for authorities to track, monitor, and shut down. This is because such sites are easily created, removed, or altered by simple modifications to web addresses. No doubt, criminal networks using websites typically do not conveniently provide identifying information such as their location or source, producing levels of anonymity in the illicit trafficking of flora and fauna (Environmental Investigation Agency 2016). One of the mounting challenges faced by law enforcement agencies is the identification and investigation of what is referred to as “portal sites”—that is, a network site that refers prospective purchasers of exotic and rare wildlife to one online “anchor” site, which is the platform that facilitates the trafficking of various species.

The digitalization of wildlife crime is a relatively new phenomenon and opens limitless vistas of academic inquiry and research into how strategic cross-sector approaches to governance can enforce the tenets of CITES. Many lessons can be learned from the digitalization of wildlife crime and international responses to such criminality. We are already witnessing interdisciplinary approaches to enforcement, as evidenced through the collaboration between the United Nations Office on Drugs and Crime (UNODC) and the International Consortium on Combating Wildlife Crime (ICCWC) and the development of the Guidelines on Methods and Procedures for Ivory Sampling and Laboratory Analysis to combat transnational trafficking along the IWT value chain. Such pioneering approaches to law enforcement include social media monitoring, online undercover surveillance, and other approaches to gathering intelligence on persons of interest (Xiao et al. 2017).
The Architects of Ecoviolence

The perpetrators of IWT are usually classified as “poachers”, “perpetrators”, and “criminals”, obfuscating the quotidian acts of the wildlife trade by those who harvest, trade, and use animals (Duffy 2014; Bennett 2011; Pires 2012; Douglas and Alie 2014; Duffy 2016). The sheer diversity of these actors makes their detection by law enforcement all the more challenging; for example, those involved in IWT are very active among local market chains, engaging in various scales of operation and intensities of harvest. On the other end of the spectrum, there are more sophisticated actors with greater levels of technological investment, sources of funding, economic self-reliance, and overall knowledge of the logistics of the global wildlife trade (Muth and Bowe 1998; Wyatt 2009; South and Wyatt 2011; Duffy et al. 2015). Finally, IWT is further problematized by the heterogeneity of the products derived from wildlife species. For example, there are confusing overlaps between farmed/wild-collected specimens and biological organisms gathered within/outside of official quotas; and non-human animals traded domestically/internationally open an entire terrain of legal, non-legal, and quasi-legal norms which blur the lines between the illegal and legal wildlife trades. Nevertheless, there is one common motif underlying global animal trafficking rings—the exercise of violence and harm against non-human animals. These architects of ecoviolence, as it were, are concisely summarized by Phelps et al. (2016). The authors argue that there are three distinct roles that actors adopt when engaging in IWT: the role of the harvester, intermediary, and consumer.

The role of the wildlife harvester is compartmentalized into eight broad categories: subsistence harvesters, commercial harvesters, opportunist harvesters, local guides, rule abusers, by-catch harvesters, recreational harvesters, and reactionary harvesters. Subsistence harvesters procure wildlife animals for household and non-commercial use (Golden et al. 2013), while commercial harvesters collect wildlife resources solely for trade. This category of harvesters employs advanced technology, relying on sophisticated networks for the capture of non-human animals. What is more, there is evidence that some commercial harvesters draw upon the support of criminal syndicates and the political elite in order to successfully harvest coveted wildlife resources (Wyatt 2009; Bennett 2011). Opportunistic harvesters, on the other hand, refer to those who, by chance encounters with certain wildlife species, engage in IWT, while
local guides are simply residents who are employed to guide non-resident harvesters (Schneider empathized the role of community-based traders in her analysis of the IWT—see Schneider 2012).

The rule abusers are those who deliberately ignore quotas, boundaries, and restrictions on technology when harvesting wildlife species. It bears emphasizing that this category often overlaps with the local guides due to their working knowledge of harvesting regulations and, more importantly, their ability to exploit these regulations (Radjawali 2011). By-catch and recreational harvesters are those who engage in unintentional harvesting and harvesting for enjoyment, respectively. This category of harvesters should not be underestimated because despite their lack of coordination and sophistication, like commercial harvesters, the number of by-catch and recreational harvesters is increasing due to the appeal of capturing iconic and charismatic wildlife species (Milliken 2014). Finally, reactionary harvesters are actors engaging in animal harvesting due to discontent with conservation policies they feel are inhibiting their livelihoods. Vira et al. (2014) note that some local communities in Africa have engaged in reactionary harvesting as an act of protestation against policies which curtail their cultural rights to hunt and trade certain animals.

The next role within IWT market chains is the intermediary, which comprises seven disparate, albeit interconnected, categories: logisticians, specialized smugglers, government colluders, third parties, processors, launderers, and vendors. Logisticians draw upon their hands-on experience and knowledge of the logistics involved in ordering and transporting wildlife resources. The logisticians, moreover, are extremely hard to identify because they may either be directly involved in the trade of animals, or indirectly facilitate the trade at a distance, maintaining a level of anonymity (Wyatt 2009). Specialized smugglers, in a similar vein, possess the skills required to facilitate the transboundary movement of animals, drawing upon specialist networks to minimize detection from law enforcement agencies by bribing government agents (Vira et al. 2014). There is much overlap between this category and that of government colluders insofar as government agents may end up working as specialized smugglers, given their esoteric knowledge working as park rangers, conservation officers, police officers, and others. These individuals engage in IWT for either social or personal gain, advancing the reach of centralized and highly organized networks (Pires 2012).

In a completely unrelated vein, third-party intermediaries are often pulled into the IWT unbeknownst to them, as in the case of external
transportation service providers. It is the logisticians, specialized smugglers, and perhaps even government colluders that arrange the transport of animals through third-party trucking and air transport companies (Vira et al. 2014). There is considerable overlap between the roles of processors and launderers because both intermediaries manipulate wildlife animals in order to integrate certain species into mainstream supply chains. Consider, for example, processors that alter the physical appearance of animals by cleaning, butchering, and skinning them so that they can conform to the appearance of legally traded wildlife. Such operations are vital to evading inspection by customs and conservation officers. Launderers, similarly, engage in these activities to add illegally traded animals into mainstream, legal supply chains (Brooks et al. 2010). Finally, vendors are those involved in the sale of wildlife resources to consumers, either through public markets or online platforms, which have grown exponentially due to the digitalization of the IWT (Shepherd et al. 2012).

The final role within IWT market chains is played by the consumer, and consumption is comprised of ten categories: medicinal, ornamental, cultural, gift, investment, recreational, animal food, construction material, fuel, and food, all sold to consumers who are often purchasing products from distant regions of the earth. Medicinal consumers exploit animals for medicinal. Laird et al. (2010) reveal that charismatic and iconic species in Asia are sold and traded for their medicinal functions. Traditional Chinese medicine (TCM) draws upon antiquated writings of ancient healers that recorded the human body’s reaction to various elements. Now in vogue, TCM is sometimes regarded as a valuable counterpart to Western, science-based medical treatments. Actman (2016) suggests that TCM is driving certain wildlife species to extinction, as the poaching and illegal trade of certain animals such as pangolins has increased across borders. Medicinal consumers have created an unprecedented demand for this ant-eating creature’s scales because of its propensity to remedy arthritis. Ornamental consumers have developed an insatiable appetite for wildlife resources such as ivory carvings, rhino horns, shark fins, and tiger pelt decorations, which serve as revenue sources for transnational criminal networks. Such wildlife resources, moreover, can also be highly important cultural objects, signifying high-value gifts and investments among collectors, creating a demand for certain non-human animal species (De Angelis 2012).
Cultural and gift consumers purchase animals through mainstream market chains because the act of harvesting particular species is a recreational or cultural pastime, linked to traditional practices, beliefs, and values. Grigoryan (2014) explains that in countries like Armenia, ownership of rare lions, tigers, and bears is emerging as a recreational activity for the wealthy and powerful, demonstrating social standing. Similarly, rare and iconic endangered species are gifted to politicians in an attempt to curry favor with powerful bureaucrats. Gift consumers and investment consumers both engage in IWT for the long-term gains of animal trafficking. Certain high-valued taxa serve as a considerable financial investment for traders and buyers in illegal market chains, especially for endangered species that face imminent extinction. Recreational consumers engage in IWT because they demonstrate a propensity for hunting exotic animals, while animal food consumers prefer using illegally traded animal species as bait and food to feed other, domesticated animals (Naylor et al. 2000). Construction material and fuel consumers view animal species as resources to be exploited for anthropocentric needs, while food consumers have a particular affinity for certain taxa because they meet basic nutritional requirements, or serve as luxury food items (Wyatt 2013).

The typology of IWT actors developed by Phelps et al. (2016) gives us tremendous insight into the dynamic and intricate nature of these market chains. We propose that each category outlined by the authors is, therefore, an architect of anthropogenic violence against non-human animals. Sollund (2017), inspired by White (2009, 2011), explores how IWT undermines several types of justice. For instance, ecological justice, the notion that human beings are merely one part of a larger ecosystem which should be protected because of its inherent value, is threatened by IWT and the anthropocentric and speciesist mentality. Such a misguided mentality facilitates, for example, the theft of wildlife resources belonging to a certain ecosystem: this is a breach of ecological justice because both the animal species and the ecosystem to which the species belongs are negatively impacted. The same can be said of environmental justice, which refers to the fair treatment and meaningful involvement of all people regarding the development, implementation, and enforcement of environmental laws, regulations, and policies (EPA 2018). In this context, environmental justice is violated by IWT because it undermines certain communities’ rights to the meaningful involvement in the implementation and enforcement of regulations covering the trade of wildlife animals.
Finally, species justice, which refers to the intrinsic right of non-human animals to be free from any type of suffering and abuse, is also distorted by IWT.

Aside from White’s justice-based approach to analyzing environmental crime, Sollund (2017) suggests that the trade in non-human species is simply immoral, given the harm and abuse inflicted on wildlife animals. This choreographed ecoviolence is shaped by the contours of speciesist and anthropocentric ideologies, justifying the domination of non-human animals. During trafficking and smuggling, animals endure physical pain, neglect, and malnutrition. Certain species, such as orangutans, experience psychological stress when separated from their parents and entered into illicit market chains to be sold as exotic pets. This degree of violence alters the neurological development of infant orangutans (Sollund 2017). In a similar vein, the booming illicit trade of lions in South Africa is equally violent in its operations: Schelling (2015) reveals that baby cubs are kidnapped from their captive mothers and hurled into the oppressive “canned hunting industry”—an enterprise dedicated to breeding lions so they can be added to staged lion hunts. The effects of the unnatural separation of infant cubs from their mothers can be devastating, leading to life-threatening nutritional deficiencies such as undeveloped bone; difficulty walking; and damaged teeth. This violence is cultural and institutionalized, permeating the very regulatory bodies created to regulate the illegal trade of wildlife animals. CITES, for example, has been excoriated by animal rights activists for perpetuating the trade, and abuse, of non-human animals. Sollund (2017) also joins this chorus of discontent over the anthropocentric leanings of CITES, arguing that the multilateral treaty legitimates the abduction, trafficking of non-human animals, and theriocide—that is, the killing of non-human animals by humans. Sollund (2017: 86) explains:

Nonhumans are consistently regarded as ‘natural resources’ which can be ‘harvested’ for human benefit. To overexploit them, though, is unacceptable, principally because this will eventually harm humans, and can even, when CITES is incorporated in national legislation, be against the law, or at least against regulations… Whether illegal or not, the abduction and theriocide of nonhumans that CITES indirectly encourages has tremendous consequences in terms of individual (and species) suffering.
Such comments undergird the anthropocentrism built into treaties such as CITES—in other words, the transboundary movement of animals is legal only when it benefits the livelihoods of human beings, a clear inversion of ecological and species justice. Clearly, then, questions of morality and ethics abound when discussing the purpose of international instruments such as CITES and, generally, why some animal species are legally kept as pets, while others are not; the delineation between legally traded and illegally traded wildlife is entirely capricious in nature, legitimizing the suffering of certain animals in captivity (Agnew 1998; Maher and Pierspoint 2011; Flynn 2011). Sollund (2017) eloquently argues for the advancement of individual rights and species-specific rights for non-human animals. While individual rights refer to one animal’s right to exercise specific needs, individual rights are also connected to species-specific rights which encompass the specific needs of a particular species—to dig, crawl, fly, migrate, procreate, and search for food, for example. Violations of both an animal’s individual rights and species-specific rights occur when animals are abducted from their habitats, forced to breed in captivity, and deprived of their freedom by being forced into expansive IWT market chains.

**Global Responses to the IWT**

Since the architects of the violence associated with the international IWT operate across borders, comprising extensive networks of buyers and sellers, efforts to stem their work must be global in scope. As mentioned briefly above, CITES is a multilateral environmental agreement among nations designed to regulate the international trade of wildlife specimens. Originating as a resolution adopted in 1963 during a meeting among members from 80 countries at the World Conservation Union, the Convention entered into force in 1975, gaining traction among other nations and speaking to the importance of regulating the transboundary movement of wildlife resources. As of 2020, there are 183 contracting parties under CITES, and it is legally binding on its members, presenting a framework for each party’s conduct through the administration of respective legislation. Successful regulation of wildlife trade, it is maintained, relies heavily upon the cooperation between governments and law enforcement personnel to enforce national laws, bringing national legislation up to international standards (see Duffy 2013 for a discussion of the North-South dimension of the Convention). The treaty’s system of
wildlife regulation is also based on the issuance of permits and certificates by national authorities with respect to the cross-border movement of wildlife specimens. CITES’ permit system has evolved since its inception, applying to a three-tiered classification, which provides disparate levels of protection to listed species (Brown and Swails 2005).

While CITES attempts to regulate the wildlife trade globally, there are places in the world where we see a more pronounced threat of IWT, often referred to as “wildlife trade hotspots” and including China’s international borders; Africa and Southeast Asia’s trade hubs; the European Union’s eastern borders; Mexico’s illicit market; certain regions of the Caribbean; and the Solomon Islands (World Wildlife Fund 2019). All of these so-called hotspots are linked by advances in global transportation. For example, North America maintains a central role in the international wildlife market, serving as both consumer and supplier of wildlife resources. Canada, Mexico, and the United States have been identified as conduits for smuggled and trafficked animals. In fact, wildlife trade among the three countries is monitored by the North American Wildlife Enforcement Group (NAWEG) and the Commission for Environmental Cooperation (CEC), both of which aim to enforce CITES by preventing the illegal trade of wildlife resources and environmental conflicts. Such bodies exemplify the international capacity building and information sharing instruments required to stem the tide of IWT. Lehmacher (2016) suggests that the transportation and logistics sector plays a vital role in identifying the risks to wildlife species along the global supply chain. The threat is so perilous that a multitude of global organizations have attempted to exercise strategic, cross-sector approaches to eliminating IWT. Consider, for example, the collaboration between TRAFFIC and the World Customs Organization (WCO) in 2015. The former is a non-governmental organization dedicated to governing the trade of wild animals in the context of biodiversity, conservation, and sustainable development, while the latter is an intergovernmental organization that oversees the creation of international conventions addressing commodity classification, supply chain security, and international trade facilitation. Working collaboratively with the United States Agency for International Development (USAID), TRAFFIC and the WCO facilitated a workshop on methods to deter transnational wildlife smuggling operations.

The workshop was extremely successful, encouraging countries like China to pledge a zero tolerance toward IWT, drawing on the support of
a handful of logistics and transportation companies. The events of 2015 were a watershed moment for the governance of IWT: the Declaration of the United for Wildlife International Taskforce on the Transportation of Illegal Wildlife Products was signed by approximately 40 corporations, agencies, and organizations, and the following year the International Air Transport Association (IATA) adopted a resolution dedicated to eliminating IWT (Lehmacher 2016). Drawing upon the public fervor over and following of CITES negotiations, this global initiative has spawned policy debates over the most effective types of conservation interventions: increased enforcement; the provision of alternative livelihoods; market-based and incentive-oriented approaches (Biggs et al. 2013; Sutherland et al. 2014; Duffy 2013, 2014; Halley and Shearing 2016; Ayling 2013; Bennett 2015). The 2018 London Conference on Illegal Wildlife Trade formulated a global commitment to addressing IWT, calling for political support from national and international entities. Specifically, the conference led to a declaration which recommends creating a legal framework reminiscent of the one used to address other transnational organized crimes. What is more, there were recommendations that law enforcement agencies collaborate more, overseeing investigations which are “money-oriented” in order to stop the financial flows of IWT among source, transit, and destination countries. Certain proactive measures were highlighted during the conference, calling on countries and non-governmental organizations to govern wildlife management through the creation of sustainable livelihoods for the communities hit hardest by poaching, animal trafficking, and smuggling (Meers 2018). Other concrete recommendations include: reducing institutional barriers to law enforcement cooperation; increasing resources to tackle illicit financial flows and governmental corruption; using innovative, financial investigation techniques; approaching IWT as predicated offenses; and buttressing anti-corruption and anti-money-laundering activities.

The declaration also provides tangible suggestions on natural resource management—namely, habitat conservation and the maintenance of ecological integrity. Most importantly, however, it highlights the importance of including indigenous peoples and local communities (IPLCs) in the fight against IWT. Drawing upon the 2016 meeting of the Conference of the Parties to CITES in Limbe, Cameroon, the declaration makes a strong case for the inclusion of IPLCs in the fight against the illegal, transboundary movement of wildlife resources. IWT, for example, engenders disproportionate effects on IPLCs in Cameroon
by corroding natural, human, and social capital stocks. Such corrosion inhibits local communities’ Sustainable Development Goals (SDGs)—in particular, SDGs 1, 8, 15, 16, and 17. IWT also affects the countries’ national budgets because the financial flows resulting from IWT negatively impact the revenue stream of local and national governments. Finally, IWT hinders the national financing of social or development programs, further marginalizing IPLCs.

Vandome and Vines’s (2018) research on IWT in Angola, Botswana, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe highlights the potential of including IPLCs in the fight against IWT. One such example is Zimbabwe’s Communal Areas Management Programme for Indigenous Resources (CAMPFIRE), an initiative promoting local ownership of protected areas. Most importantly, this initiative was one of the first in Africa to involve IPLCs in tackling IWT. The decision to include IPLCs is merely one example of utilizing an environmental justice framework, as animal trafficking disproportionately affects local communities that rely on animals for maintaining ecosystems. Consider, for example, how IWT negatively affects Angola by preventing the African country from developing a vibrant tourism industry; similarly, IWT undermines human security among vulnerable IPLCs, leading to abject poverty and structural dislocation. These are merely a few examples of how IWT affects African and indigenous communities in Latin America, North America, Asia and elsewhere. IPLCs also bear the brunt of top-down, militarized responses to IWT, especially when such communities are stigmatized and criminalized for using wildlife resources. Hubschle (2017) notes that militarization campaigns against IWT often lead to IPLCs feeling threatened by the presence of law enforcement and military officials, exacerbating social conflict between communities and agents of the state. Such tensions often lead to the oppressive exploitation of indigenous peoples—many of whom are forced into IWT by powerful criminal networks because of their special skills and knowledge regarding rare and iconic species. It is only through the inclusion of IPLCs, then, that environmental justice will be achieved, empowering and incentivizing these groups to engage in sustainable, conservation efforts (“The role of Indigenous Peoples and Local Communities in combating illegal wildlife trade”, 2016). This is precisely where a political economy of IWT would aid a more nuanced understanding of the environmental justice and human security dimensions of criminality activity.
For our purposes, the use of political economy in theorizing and explaining IWT makes logical and pragmatic sense: socio-economic, structural conditions influence the illegal trade of wildlife. Specifically, political economy attempts to explain the behavior of the various actors involved in IWT market chains, relating such behaviors to structural circumstances pertaining to economic conditions, relations, and processes. In other words, links between volatile economic systems and the social sphere are unpacked through a political economy lens—specifically, the interconnectedness of economic relations, social relations, and institutions. Let us briefly apply political economy to a case study before we explore the environmental justice and human security dimensions of IWT.

**The Illegal Trade of Turtles**

According to the Florida Fish and Wildlife Conservation Commission, more than 4000 native turtles were illegally traded in 2018. The specimens, valued at approximately $200,000 on the black market, were part of a sophisticated trafficking ring that was responsible for the distribution of these animals to reptile dealers located in Asia. Elassar (2019) reveals that the wholesale cost for individual specimens is approximately $300, while the retail cost can be upward of $10,000 each in Asia. Customs officials discovered illegally smuggled freshwater turtles being exported from South Carolina and New Jersey to Hong Kong (Rohrlich 2019).

Canada’s Border Services seized 117 turtles and tortoises at the Windsor-Detroit border crossings in 2018, illuminating the global demand for these animals. The most coveted turtles are the rare eastern box turtles; the ringed map turtles; the three-toed box turtles; and diamondback terrapins. These specimens are valued at approximately $800 each and conservationists are deeply concerned about the growing threat of turtle poaching. In Ontario, Canada, the reduction of certain turtle species negatively impacts marine ecosystems that are vital to the survival of aquatic species. We are witnessing similar impacts across the globe, as the illicit black market for turtles and tortoises is becoming a global phenomenon: in 2019, Filipino customs officials seized more than 1500 exotic turtles and tortoises at the Ninoy Aquino International Airport, while 3300 pig-nosed turtles were smuggled into Malaysia. In both cases, the creatures were smuggled originally from Hong Kong, as a direct result of burgeoning trafficking networks.
operating within Asia. Livni (2018) explains that the lucrative black market for turtles and tortoises is expanding because of ornamental, medicinal, and food consumers in Asia, most of which procure these animals as exotic pets; a source of traditional medicine; and a delicacy during cultural feasts. In fact, turtle meat is considered to be an aphrodisiac in certain Asian countries, while turtle bones are crushed into a powder for their supposed healing properties.

How do we begin to explain the aforementioned behavior of poachers, smugglers, and traffickers? Mancini et al. (2011) suggest that the most prevalent drivers of turtle trafficking include direct economic benefits; the absence of effective law enforcement; and, most importantly, strong family tradition. Guillén et al. (2007) also contend that poverty and limited income-generating activities serve as drivers of the illegal trade of turtles. With difficult economic realities bearing down on local villagers, IWT serves as a reliable source of income and/or income augmentation. Madrigal-Ballestero and Jurado (2017) observe that a dearth of productive assets, unstable sources of income and economic opportunities, generally, incentivizes various harvesters and intermediaries to engage in IWT market chains. It is little wonder that the majority of criminal trafficking networks include Hong Kong as a destination country. Aun (2009) maintains that turtles serve a religious and symbolic function in Buddhism, as the Chinese believe that if one finds a turtle and delivers it to a temple, they will be rewarded with good fortune and longevity. What is more, the release of turtles into certain rivers, referred to fangsheng or “the release of life”, reinforces Buddhist thought and the path to a “better rebirth”. Such social practices and religious beliefs, in conjunction with limited income-generating activities and the volatility of the labor market, create the perfect storm for the transboundary movement of non-human animals. But the political economy of IWT is merely the tip of the proverbial iceberg when theorizing transnational environmental crime. Let us turn our attention to how an environmental justice and human security framework can be invoked to elucidate the varied dimensions of IWT.

The Illegal Trade of Pangolins

Though evidence is inconclusive, the possible linkage between the illegal trade in pangolin meat and scales in China and the zoonotic novel coronavirus COVID-19, which spread around the world with terrifying speed in February and March of 2020, has thrown the pangolin, already known
as a highly endangered species, into a sharp spotlight (see Yu 2020; Andersen et al. 2020).

Taxonomically speaking, pangolins are mammals of the Pholidota classification. As of 2020, there are eight species of pangolins spread across the globe. The Indian pangolin, Philippine pangolin, Sunda pangolin, and Chinese pangolin can be found in Asia, while the black-bellied pangolin, white-bellied pangolin, giant ground pangolin, and Temminck’s ground pangolin are located in Africa. These magnificent creatures have been hunted by Nigeria and Cameroon’s indigenous peoples for centuries, but the socio-cultural fabric of these local communities has been torn asunder by the growing consumer demand of these animals, especially from Asia. According to the Environmental Investigation Agency (2016), there has been an increase in the amount of pangolins trafficked from Africa and Asia, resulting in pangolins being added to Appendix I at the Conference of the Parties to CITES in South Africa in September 2016. Referring back to the typology of key actors along the IWT market chains presented by Phelps et al. (2016), we begin to see the main drivers of the illegal pangolin trade—namely, medicinal, ornamental, and food consumers. For example, pangolin fetuses, scales, and blood are used in Chinese medicine, while stuffed pangolins are sold as souvenirs and their scales transformed into high-fashion jewelry (Zhang 2018). Food consumers in Africa, on the other hand, revere pangolin meat as a delicacy, and its possession elevates one’s socio-economic status within the community. Seizure data compiled by the Environmental Investigation Agency from 2000 to 2016 reveals that pangolins are one of the most vulnerable species to IWT, with approximately one million pangolins being illegally traded within Asia in the last decade (Environmental Investigation Agency 2016).

A research paper published by TRAFFIC and the IUCN in 2016 entitled “The Global Trafficking of Pangolins: A comprehensive summary of seizures and trafficking routes from 2010-2015” reveals that a staggering 67 countries were involved in IWT market chains (Heinrich et al. 2017). The cross-border seizure data, furthermore, reveals that between 2010 and 2015, law enforcement agencies confiscated 120 tons of whole pangolins, parts and scales. In November 2017, China recorded the seizure of 11.9 tons of pangolin scales—the largest recorded pangolin seizure to date (Zhang 2018). What can be gleaned from the data is that those involved in the smuggling and trafficking of pangolins utilized 27 global trade routes, with Berlin being identified as a major transit hub.
for the transportation of pangolins from Africa to Asia. The adaptability of criminal networks, more importantly, is highlighted in the publication, identifying the highly mobile nature of smuggling routes: intermediaries strategically choose between well-known trading routes and new routes to evade and confuse law enforcement agents.

How, exactly, does the concept of environmental justice aid our understanding of the global trade of pangolins? Vandome and Vines (2018) argue that the economic value of African ecosystems is under-recognized because of the lacunae in the literature on transnational IWT. As mentioned above, IPLCs in African countries have, until quite recently, been excluded from efforts to combat IWT. This seems to be the case when looking at the illegal pangolin trade between Africa and Asia. Similar to the transnationalization of plant crime discussed in Chapter 5, the growth of the middle class, and its insatiable appetite for rare and iconic animal specimens, seems to be one of the major drivers of the pangolin trade. This has led to the emergence of Nigerian syndicates working in tandem with Asian criminal networks to export pangolins out of the country (Sunday 2019).

Confronted with rampant bribery and increased corruption, IPLCs in Nigeria have witnessed their territorial lands transform into transit hubs for smugglers. This is a clear violation of environmental justice because African local economies maintain their vitality and strength from natural capital stocks, and the IWT inhibits inclusive growth and sustainable development (Vandome and Vines 2018). Despite the Declaration of the United for Wildlife International Taskforce on the Transportation of Illegal Wildlife Products’ promise to include IPLCs in global initiatives to tackle IWT, countless communities in Nigeria express concern that their voices are still being silenced in larger conversations regarding conservation of the country’s pangolins. Concomitantly, top-down, fortress style conservation practices take precedence over local knowledge, preventing Nigeria’s IPLCs from weighing in on important decision-making processes regarding the illegal trade of pangolins. The exclusion of Nigeria’s IPLCs from such decisions affects the country’s ecosystems and biodiversity, forcing these communities to bear the economic cost of IWT. Their exclusion also affects their tourism industry, as IWT deters various actors from investing in Nigeria which, in turn, impacts government revenues and the livelihoods of IPLCs. Environmental justice, then, serves as a useful framework for explaining how
IPLCs’ rights are undermined through the proliferation of the illegal pangolin trade.

The Illegal Trade of Hyacinth Macaws

Colloquially referred to as the “king of parrots”, the hyacinth macaw is a fulgent bird hailing from central and eastern South America. The species was added to the CITES Appendices—specifically, Appendix 1, which lists those species that are the most endangered due to imminent threats of extinction. CITES, in turn, prohibits the international trade of these specimens, except for exceptional (non-commercial) circumstances such as scientific research (Schneider 2012). The fetishization of this incredible creature has led to its unfortunate decline across the globe. Hruby (2019) maintains that during the last two decades of the twentieth century the number of hyacinth macaws fell from 10,000 to a mere 1500 due to the global pet trade, with the approximate cost of one parrot ranging from $5000 to $10,000 for a male and $15,000 for a female. Conservation efforts in Brazil at the dawn of the twentieth century have attempted to reverse the decline of the macaws, boasting a repopulation of about 4300 mature birds in the year 2000, but egg smuggling seems to be an intractable problem, as harvesters and intermediaries tend to have more luck smuggling eggs across porous borders. Austrian authorities have been conducting an investigation since 2016, confiscating illegally traded parrots and eggs, especially those belonging to the hyacinth macaw. Referred to as the “egg smuggling mafia”, criminal networks in Europe have turned certain countries in the continent into hubs for egg smuggling. European harvesters and intermediaries possess sophisticated technology for the breeding, rearing, and laundering of hyacinth macaws, satiating the appetite of ornamental consumers in Europe. In fact, between 2003 and 2015, customs officers have confiscated more than 358 bird eggs, most of which belonged to hyacinth macaws destined for Portugal, Slovakia, and the Czech Republic (Hruby 2019).

A human security approach has much to offer when examining the dynamic and nuanced dimensions of the illegal trade of hyacinth macaws and their coveted eggs. Beginning with economic and food security, defined as the guarantee of a basic income, and physical and economic access to basic food (UNDP 1994); It is clear that the trafficking of hyacinth macaws could, very well, threaten the livelihoods,
employment, and food resources of many Brazilians. For example, the poverty isolated in remote communities in the country is only exacerbated by parrot and egg poaching, which leads to nest destruction and habitat loss. These human-induced ecological interruptions disturb the foraging and hunting behaviors of animals which, in turn, affect the economic and food security of Brazilian villagers impacted by the illegal trade of hyacinth macaws. The opportunity costs of lost tourism revenue are difficult to quantify, a common theme in the calculation of IWT costs; along with other hidden costs, they contribute to the World Bank Group (2019) recent estimate that the true costs of environmental crime range from one to two trillion US dollars per year.

Health security, defined as protection from infectious or parasitic diseases and access to personal health care (UNDP 1994), is also undermined by the trafficking of hyacinth macaws because the illicit trade of certain species can lead to pandemics such as varieties of influenza (Cantu et al. 2007). Health security is also linked to personal security and community security, defined as peoples’ physical and mental safety from violence and safety from oppressive practices and ethnic conflict, respectively (UNDP 1994). Pires and Clarke (2011) reveal that parrot poachers fall into two distinct categories: “professional” trappers and “opportunistic” villagers. The abject poverty in which many Brazilian villagers find themselves forces them to seek financially rewarding careers as poachers. This, according to Hruby (2019), often leads to violent conflicts with “professional” trappers who have already carved out a niche for themselves in the IWT market chain. Suffice to say, tensions between these two groups have risen in light of the global demand for hyacinth macaws and their eggs.

Environmental security, which is referred to as access to a healthy living environment and basic resources such as water and land (UNDP 1994), is also threatened by parrot poaching in South America. The extent of poaching in certain “hotspots” across the globe can lead to biodiversity loss and ecosystem degradation (Berkunsky et al. 2017). Tella and Hiraldo (2014) maintain that IWT leads to the decline of certain indigenous species because invasive alien species end up competing with local animals for food and space, again, placing pressure on habitats. Moreover, parrot poachers can, unintentionally, alter the demographic and genetic structure of hyacinth macaws by overexploiting the species through the selective hunting of male parrots. This, in turn, reduces the long-term viability of male parrots (Milner-Gulland et al. 2003; Berkunsky et al.
2017). Parrot poaching can introduce new diseases into ecosystems and, ultimately, food chains relied upon by various non-human animals. The transmission of diseases into wild populations could potentially affect the environment and human health. Finally, as Gascon et al. (2015) reveal, all species perform vital roles within the ecosystem and the loss of the hyacinth macaw could lead to significant disruptions in ecosystem function such as “empty forest syndrome”, characterized by barren forests, seed dispersal and predation (Redford 1992).

The final dimension of security outlined in the human security framework is political security, defined as freedom from state oppression and human rights violations. While not much evidence-based research has been conducted on how parrot poaching undermines a country’s political security, we can speculate how the illegal trade of the hyacinth macaw may affect Brazilians’ political security, especially if we consider the typology of IWT actors presented by Phelps et al. (2016). We can, for example, reflect on how intermediaries such as government colluders may threaten political security, oppressing local villagers who rely on hyacinth macaws for sustaining their environment. Based on the global demand for this particular species of parrot, many criminal networks could, potentially, quash the political and civil liberties of Brazilian civilians for economic gain.

**Syncretic Analysis: The Seed-Finch’s Song of Freedom**

In order to demonstrate the productiveness of pursuing a syncretic analysis of IWT, we will present a harrowing story of the illegally traded Seed-Finches of Guyana. The illegal trade of Guyana’s Chestnut-bellied (Sporophila angolensis) and Large-billed (Sporophila crassirostris) Seed-Finches has garnered the attention of those interested in the intersections of IWT, conservation, and security (Stack 2018). Guyana’s illegal trade of wildlife has served as a clarion call for the development of adequate export laws, quotas, and regulations. In 2018, customs officials at John F. Kennedy International Airport discovered approximately 200 of the songbirds hidden in the luggage of smugglers who brought them illegally into the United States.

The illegal wildlife trade of Guyana’s Seed-Finches warrants an analysis from an environmental justice and human security perspective, especially after the President of the Tourism and Hospitality Association’s 2019
address to the international community for a ban on wildlife trade, smuggling, and commercial hunting in Guyana’s hinterlands. The President’s address is an attempt to preserve Guyana’s flora and fauna. Anthropocentric interference with the country’s biodiversity has nearly led to the Seed-Finch’s extinction, according to the International Union for Conservation of Nature and Natural Resources. The International Fund for Animal Welfare (IFAW) has also identified how wildlife crime has grown into the fourth-largest branch of illegal international trade in the past half-decade; the illegal trade of Guyana’s Seed-Finches is a part of the black market in animals. Additionally, CITES has categorized Guyana as a country of “possible concern” and has recommended that the country (i) establishes and implements a field reporting system to record the origin of harvested birds, (ii) establishes a population monitoring system, and (iii) maintains traditionally practiced trapping and export seasons (UNEP-WCMC 2018).

The predominant driver of Seed-Finch smuggling, according to Stack (2018), is what is colloquially referred to as “bird racing” among Caribbean diasporas in Queens, New York. As part of an underground singing concert during which gamblers place bets on the birds’ chirping skills, “bird racing” has grown in popularity within certain suburbs across Queens. This is a rather fascinating case study because of its socio-cultural dimensions: “bird racing” is an activity taken up by members of Caribbean diasporas who try to maintain a connection to their home country and their cultural practices. According to a United States Fish and Wildlife Service investigation nicknamed Operation G-Bird, Seed-Finches can sell for up to $10,000, and informal competitions have accelerated the smuggling of these birds. This serves as a lucrative enterprise for smugglers in Guyana trying to eke out a living in a country that has an unemployment rate of 40 percent and one of the highest emigration rates in the world, with over 55 percent of Guyana’s citizens residing in other countries (Lano 2017). Such bleak economic conditions incentivize local harvesters to engage in IWT market chains.

By exploring the structural imperfections of Guyana’s labor market, we can contextualize the political economy of IWT: approximately two-thirds of Guyana’s citizens live in poverty, with the majority working as agricultural workers in rural areas. In fact, Guyana receives more international aid per capita than 85 percent of the world and yet it remains one of the poorest countries in the Americas. This can be attributed to the legacy
of structural adjustment policies enacted as early as the 1980s; the proliferation of transnational extractive industries; “green” conditionalities for international loans for protected areas; and the presence of international loggers, and gold and mining companies—most of whom gain access to the country’s bountiful resources via large land concessions (Hennessy 2005). Such dire economic conditions give rise to clandestine groups attempting to smuggle Seed-Finches into the United States, earning up to $10,000 for each bird, depending on its pedigree and track record (Rueb 2015). The links between global economic relations and social relations are further revealed by the socio-cultural dimension of Seed-Finch trafficking; as stated above, Caribbean diasporas in Queens, New York, host “bird racing” contests in an attempt to reconnect with their cultural practices, while turning a profit during these “races” and other contests featuring Seed-Finches. Bird mules in the United States, for example, can make approximately $15,000 for a single flight, depending on how many birds they can transport (Rueb 2015).

Environmental justice lends a unique insight into the illegal trade of Guyana’s Seed-Finches, especially when exploring the violation of certain indigenous communities’ rights. IWT in Guyana is rampant and the trafficking of these rare birds undermines the rights of communities to participate in the governance of their wildlife resources. This is because low-income and indigenous communities are prevented from participating in decision-making processes that affect the protection and conservation of the Seed-Finch, opening a vacuum for the harvesters, intermediaries, and consumers to exploit the country’s biodiversity. Environmental justice, in this context, also speaks to the importance of including IPLCs in the fight against the Seed-Finch trade. For example, serious strides have been made in the realm of conservation in Guyana: the country launched its very first community-owned conservation area (C.O.C.A.) at the dawn of the twenty-first century with the Wai Wai, one of the country’s indigenous peoples. Collaborating with Conservation International, the Government of Guyana, Conservation International-Guyana (CIG), and the Wai Wai signed a Memorandum of Cooperation (MOC) outlining a plan for the sustainable use of the Konashen’s wildlife resources. Such initiatives speak to the importance of environmental justice in the context of the illicit trade of Seed-Finches, expanding our understanding of the transnationalization of IWT.
Finally, human security can be applied to the global trafficking of exotic birds, highlighting the security dimensions. From this perspective, we can review how the UNDP’s seven elements of security are threatened and undermined by the transboundary movement of Guyana’s Seed-Finches. Economic and food security, both of which address guarantees of a basic income, and physical and economic access to basic food (UNDP 1994), can be subverted by IWT because the overharvesting and subsequent theft and trafficking of both the Chestnut-bellied and Large-billed Seed-Finches hinder local, indigenous economies. Heavily relied upon wildlife resources run the risk of being depleted and overexploited through IWT and indigenous communities bear the brunt of this practice, which hinders their socio-economic development. The same can be said of food security, as the theft of certain species of birds may disrupt beautifully elaborate ecosystems and food chains which, indirectly, affect human beings’ access to certain food items in the densely forested jungles of Guyana’s hinterlands.

Health security is also, potentially, undermined by Seed-Finch trafficking rings as a nation’s protection from infectious or parasitic diseases is compromised. IWT could pose a threat to American agriculture and the broader economy through the possible introduction of animal diseases like Bird Flu. The 2015 outbreak of Bird Flu in the United States, for example, caused $850 million in damages; not enough research has been conducted on whether or not Seed-Finches may end up being an example of an invasive alien species in the United States (Stack 2018). Personal security and community security are other dimensions to consider here, as they both refer to peoples’ physical and mental safety from violence and safety from oppressive practices and ethnic conflict, respectively (UNDP 1994). The high demand of Seed-Finches in the United States has fuelled heightened rivalry between local harvesters and intermediaries in Guyana, all of which resort to violent acts in order to gain access to these coveted birds. With the potential to make $15,000 as a bird mule per trip to the United States, impoverished members of communities are literally fighting each other for opportunities to supplement their meager incomes (Rueb 2015).

Environmental security is, undoubtedly, affected by Seed-Finch trafficking because certain communities’ access to a healthy living environment and basic resources such as water and land are severely threatened by harvesters and intermediaries. Guyana has witnessed habitat destruction and drastic changes in the demographic and genetic structure of
these birds as a result of IWT; according to Stack (2018), more demand is placed on male Seed-Finches and this could lead to a reduction in their long-term viability and overexploitation. Somewhat related to violations of health security, environmental security is also undermined by the potential of Guyana’s exotic birds introducing new diseases into American ecosystems and, ultimately, food chains relied upon by various non-human animals.

The final dimension of security which requires our attention when discussing the global trade of Seed-Finches is political security. Referred to as freedom from state oppression and human rights violations, political security is tenuous in Guyana. Revisiting the typology of IWT actors presented by Phelps et al. (2016), we can surely identify intermediaries such as government colluders working in tandem with local smugglers. Rueb (2015) notes that bribery is rampant in Guyana’s airports, as smugglers entice government and airport officials with the avails of their smuggling operations. This may only be a tip of the proverbial iceberg, exposing how extensive IWT market chains are in Guyana.

Conclusion

The ecoviolence and harms associated with IWT are globalizing and showing little sign of abating. While carefully coordinated steps to address underground trafficking networks are in full swing, criminal networks are always a few steps ahead, innovating and expanding their modus operandi. IWT must be seen from a perspective informed by consideration of the implications of (in)justice, anthropocentrism, and speciesism. In general, it is high time we view non-human animals as sentient beings—beings which possess inherent value and worth. There are many moral, ethical, and, of course, sustainability-related reasons to end animal exploitation and combatting IWT is a step in the right direction. In this chapter, we presented a conceptualization of IWT, unpacking the myriad drivers of this transnational activity; we proceeded by exploring the various actors involved in the IWT market chain and explored some of the global responses to the trafficking of wildlife resources. We then briefly described the illegal international trade in turtles, pangolins, and hyacinth macaws. Finally, we presented a syncretic analysis of a provocative case study: the smuggling of Guyana’s Seed-Finches into the United States.

We discuss various responses to the IWT and other environmental crimes in Chapter 7, but it is clear that it will continue to flourish
if market demands do not decline. Raising awareness—including the poignant reminder that “extinction is forever”—is just part of the task. As the COVID-19 pandemic spread and people began to associate its origins with the wildlife trade in China (though this is yet to be proven in the definitive), there were calls to ban wildlife trade altogether. This would hardly solve the problem: it would just drive the IWT further, even increasing its popularity, and making monitoring the trade even more difficult, and it would unfairly punish those who engage in sustainable trade. But the battle against IWT must be taken more seriously by governments in particular. Many people engaged in the trade are not fully aware of their small roles within it. Government corruption is also a major factor, since underpaid customs agents and others along the supply chain can often be bribed or coerced into negligence; but in many cases, it is more a matter of lacking the skills necessary to identify illegal shipments, and the willingness to prosecute IWT offenders, who are often treated as minor criminals in national courts. We see similar patterns in the transnational hazardous waste trade and turn to this topic in the next chapter.

**Note**

1. As with other forms of organized crime, it is impossible to obtain accurate figures about net value. This is the case for all of the transnational environmental crimes discussed in this book. Economists are able to make broad estimations only, given the covert nature of the trade and fluctuations in market prices. And a monetary value alone could not possibly capture the true costs of environmental crimes.

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