



From Illegal to Regulated Wildlife Trade: A Realistic Approach To Sustainable Biodiversity Conservation

Sotolu, R.O.

Department of Wildlife and Range Management,
Federal University of Agriculture, Makurdi, Nigeria.
omolorlar@yahoo.co.uk

Abstract

Management of biodiversity exploitation is as crucial as having the biological entities on our planet. Massive erosion in the complexity and diversity of wildlife resources requires a pro-active management strategy which would take into cognizance a consideration for flexibility rather than rigidity in convincing human minds. Illegal wildlife trade (IWT) ravages the world's biodiversity at an alarming rate while legal trade in wildlife and its products covers animals in IUCN Red List of endangered species while critically endangered species are strictly under ban. Threatened species are not protected by CITES, thus exposing them to becoming endangered although concerted efforts are being made across the globe to retard the booming rate of the trade yet, IWT keeps threatening the world's biodiversity with extinction and quality of lives of humans. Corruption on the parts of enforcement and prosecution officers militates against legal approach to solving the problem among others. One way does not solve it all but an all-inclusive, more flexible approach and dialogue could assist in protecting wildlife resources which is the ultimate goal. Such is expected to bring all stakeholders together to design a mode of establishing green justice that ensure social responsibility, economic viability and environmental sustainability. Following bag limits; hunting quotas and harvest season concepts, multinationals and legitimate businesses behind illegal exploitation of wild stock should pay special duty on animals killed or captured for the purpose of regeneration and consequently, protecting their businesses from collapse. Ecologists, conservationists and environmentalists would stretch environmental resources to its carrying capacity for regeneration of species facing over exploitation, taking cognizance the effect this would have on the populations of other fauna and flora species in the ecosystem regarding the competitive exclusion principle. Species habitat would be improved using habitat management techniques, range of species habitat would be expanded, and regeneration of wild stocks would eventually complement natural capacity and cater for exploitation. This is not a legal approach but would employ human reasoning, pushing environmental scientists to the edge and finally saving our planet from species extinction.

Key words: Illegal wildlife trade, Biodiversity, Endangered species, Wild stocks, Exploitation

Introduction

Unregulated harvesting of wildlife has ravaged the world's biodiversity since the beginning of the twentieth century. Wildlife resources exploitation has not been limited to low-level poaching for subsistence consumption but has metamorphosized, by extension, to high-level transnational organized crime of illegal wildlife trade (IWT). Networking from source through to destination countries is complex and transcends borders. It connects poachers in source countries (mostly from eastern, central and southern African countries), transnational criminal syndicates, and traders and consumers in East Asia, Europe, North America and elsewhere. The involvement of powerful stakeholders including some police, customs officers, and legal and political figures, makes it uneasy to tackle as illegal products are transported using sophisticated smuggling techniques and routes (UNEP, 2014). Poaching and trafficking are further fueled by the clandestine nature of IWT, poverty, poorly monitored borders, corruption (locally and internationally), weak regulations and enforcement and inconsistencies in recording offences, which also makes it difficult to measure the scale of the trade at the global level (Sollund and Maher, 2015). To make matters worse, low rate of detection and lenient punishment makes potential rewards outweigh the risks to offenders.

Records have shown that one third of the world's species is threatened by IWT (Sollund and Maher, 2015) and among these most critically endangered are iconic species such as rhinoceros and African elephants (Rivalan *et al.*, 2007). The attention given to these 'iconic' species can suggest they are the most prolifically killed and trafficked animals. The Living Planet Index (LPI), which measures more than 10,000 representative populations of mammals, birds, reptiles, amphibians and fish, has identified a 52% population decline in the last 40 years (WWF, 2014). Hunting and poaching constitute a serious threat for many species (WWF, 2014), although habitat loss is likely to be responsible for much of this decline as far as terrestrial species are concerned. Consequently, the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) currently lists almost 5,600 animal species as threatened (Wyler and Sheikh, 2008). Legal guidelines for the international trade of certain wild animals, plants, and derivatives thereof were established by CITES which entered into force in March 1973. Varying degrees of trade regulation are specified for these animals, plants, and their products based on their being listed in the appendices of the Convention. Species threatened with extinction are listed in Appendix I with trade in them authorized only in exceptional circumstances. Species not immediately threatened with extinction, but which may become so if trade in them is not regulated, are listed in Appendix II. Species that are regulated within the jurisdiction of at least one CITES party, are listed in Appendix III. Trade in Appendix-listed species is based on a system of government-issued permits and certificates that must be presented and cleared before consignments can leave or enter any country. CITES is however limited in its ability to monitor illegal wildlife trade as it only ensure member states' compliance with the provisions of the treaty. The treaty expects member states to execute national legislation in accordance with CITES commitments while reporting cases of noncompliance to the CITES Secretariat, as it does not make trade in illegal wildlife a crime nor does it specify criminal penalties for violators. This gives room for inconsistencies and violations among countries and sometimes, inability of member states to enforce wildlife trade laws. Such defiant countries occasionally suffer trade suspensions in CITES-listed species with other member states consequent to CITES notification. Some of such countries currently under active suspension notification by CITES include Djibouti, Guinea-Bissau, Liberia, Mauritania, Nigeria, Rwanda, and Somalia (CITES, 2006) and these notifications are however at liberty of member states as they are left to enforce it according to Wyler and Sheikh (2008).

Species of interest commonly poached are primarily for bush meat and sometimes for generating income through sales, especially to offset economic loss to human wildlife conflict (Sotolu, 2016), or for medicinal purposes. Globally wild animal species are harvested for their products such as ivory, animal body parts for potions and medicine, and for adornments (Table 1) out of which Asia Pacific takes a quarter of the IWT on global scale as reported by Lin (2005). The origins of most of these animals are eastern and southern African countries, while the destinations span countries from almost all the other six continents of the world, especially China. These harvests could be done through snaring, poisoning of animals and use of firearms (UN Chronicle, 2014).

Costs and Consequences of Illegal Wildlife Trade

Illegal trade in wildlife resources including timber comes with some economic, social and environmental costs. Although, this trade worth nothing less than US\$50-150 billion per year by estimation according to UNEP (2014) it does not account for the costs.

Table 1: Major Wild animals and parts traded across the globe and their uses

S/N	Animal Traded	Product(s)	Uses	Source Country	Destinations
1.	African elephant (<i>Loxodonta africana</i>) and Asian elephant (<i>Elephas maximus</i>)	Ivory	souvenirs, jewelry and carvings (chopsticks, name stamps, hair clips, ornaments)	Congo, Zimbabwe, Kenya	China, Singapore, Thailand
2.	Beluga Sturgeon(<i>Huso huso</i>)		Caviar	Russia	China, Russia
3.	Chiru/Tibetan antelope(<i>Pantholops hodgsonii</i>)		wool, shawl and scarves	India	China, India
4.	Tiger(<i>Panthera tigris</i>)	Bone	Trophies, Chinese medicine	India, China	China
5.	Asiatic black bear (<i>Ursus thibetanus</i>)	Bile, paws	Chinese medicine, delicacy	China	China
6.	Bornean orangutan (<i>Pongo pygmaeus</i>)	Carcass	Bush meat, pet	Indonesia	China
7.	Radiated tortoise (<i>Astrochelys radiata</i>), spider tortoise (<i>Pyxis arachnoides</i>)	Carcass	Bush meat, pet	Madagascar	China
8.	Rhinoceros(<i>Diceros bicornis</i>)	Horn	Dagger handle, Chinese medicine	South Africa	Yemen, China
9.	Parrot (<i>Psittaciformes spp</i>)		Exotic pet	Mexico	US

Source: Adapted from IFAW (2011)

These costs take many forms which include increasing poverty, fueling civil conflict, erosion of state authority, threatening national stability and international security, provoking substantial economic losses internationally (Lawson and Vines, 2014) and impacting negatively on food security, climate change, public health like zoonotic diseases, and biodiversity (Sollund and Maher, 2015). Loss of some keynote species can devastate the environment. Elephants, which are often referred to as 'ecological engineers', change the landscape by uprooting grasses and trees, stripping tree barks and dispersing seeds of the forage they eat. This creates diverse and rich ecosystems which could sustain subsistence livelihoods of the locals and also have more resilience against threats from diseases and extreme weather conditions. Profits from the illegal wildlife trade are used most often to finance further illegal activities such as purchase of arms and ammunition by rebel groups.

Recent Trends in Wild Species Exploitation and Its Economic Worth

There has been an increase in the number of wild animals killed annually over the past few years. Doubling 2007 figure, up to 25,000 elephants were killed in 2013 to fuel illegal ivory trade, with ivory reportedly priced at over US\$2,200 per kg in China (UNEP, 2014). More than ever before, over 1000 individuals of rhinoceros were killed in 2013 and its poaching has increased by 7000% between 2007 and 2013 in South Africa alone. The horn of rhino is worth as much as US\$66,000 per kg on the black market (UNEP, 2014) and the UNEP report further showed that as of early 2013, about 20,000 white rhinos (*Ceratotherium simum*) and 4,880 black rhinos (*Diceros bicornis*) remained in the wild. Up to 100,000 wild species are becoming extinct every year (WWF, 2014) and this is 1,000-10,000 times the rate of natural extinction as reported by Sollund and Maher (2015).

International Collaborations through Legal Channels and Its Effectiveness

Some international legal initiatives, involving countries and communities, to curb and combat the crime have evolved. The Canine Detection Unit of Kenyan Wildlife Service (KWS) is saddled with the responsibility of obstructing trafficking process by detecting contraband wildlife products such as ivory and rhino horn at airports and seaports. This unit has been recently enhanced by the African Wildlife Foundation (AWF) with additional dogs and support for training. In addition, several workshops are being conducted in districts in Kenya in order to keep stakeholders such as local magistrates, police, customs and immigration officials, communities, and others abreast of information as well as technology which borders on existing wildlife laws and the need for enforcing them by AWF and its partners. Most of these stakeholders, more often than not, are not privy to the extent and impact of the poaching and trafficking crisis (UN Chronicle, 2014). In April 2013, the UN Commission on Crime Prevention and Criminal Justice sought to toughen existing laws by declaring wildlife trafficking a 'serious crime' with offences carrying a minimum penalty of four years of imprisonment according to UNEP (2014). Collaboration, cooperation and coordination among international organizations, vital for achieving positive results in the face of a multi-stakeholder transnational crime such as this, exist. The International Criminal Police Organization (INTERPOL) together with the UN Office on Drugs and Crime (UNODC) are assessing relationships between illegal wildlife trade and other transnational crimes, such as drug smuggling and money laundering. Customs enforcement operations are further assisted in addition to apprehending illegal materials at borders, by the World Customs Organization (WCO) to determine the legitimacy of all goods being declared for entry or exit. International Consortium on combating Wildlife Crime (ICCWC) is recognized presently as the leading intergovernmental initiative in the world towards the fight against wildlife crime. It is composed of the CITES Secretariat which is the primary multilateral organization that regulates trade in wildlife, INTERPOL, UNODC, the World Bank and WCO, and was created to ensure a strong and coordinated response to wildlife crime. Wildlife and Forest Crime Analytical Toolkit was designed in 2012 through the ICCWC office, to assist governments in identifying the strengths and weaknesses of their criminal justice responses to wildlife and forest crime (UNEP, 2014). At the 16th meeting of the Conference of the Parties (CoP16) to CITES in 2013, in addition to other issues, there was a consensus to treat wildlife crime as a serious crime and develop a response adopting technique used to combat other serious crimes (CITES Secretariat, 2013). These however, are yielding some positive results. In synergy with law enforcement and environmental agencies, 28 countries worked for a month on a sting operation called 'Cobra Two' at the beginning of 2014. A total of 36 rhino horns, more than three tonnes of ivory, over a thousand skins of endangered animals, and hundreds of tonnes of logs from protected trees were seized, resulting in more than 400 arrests in Asia and Africa. Despite all these efforts, offenders most often than not evade justice as there has been very few documentation of payment of penalties and service of jail terms from records of penal cases.

Exegeses for Considering Regulated Wildlife Trade

Sollund and Maher (2015) stated that most of the trades in wild animals and their products comply with laws and regulations despite the costs while Lawson and Vines (2014) have earlier reported that global legal trade in wildlife worth over 300 billion USD per year. Growth of illegal wildlife trade is further promoted by some facts pointing at body parts of some wild animals, such as tiger, rhinoceros and bear (bile), as exhibiting healing properties and used in traditional medicine (Warchol *et al.*, 2003). The EU-TWIX database, which is an online tool to centralize data monitoring illegal activities related to the trade in fauna and flora covered by the EU Wildlife Trade Regulations database, recorded more than 50,000

confiscations of products destined for the Traditional Chinese Medicine (TCM) market between 2001 and 2010. These include big cat, musk deer, bear, saiga antelope, pangolin and rhino (van Uhm, 2014). Either legal or illegal, the motives and incentives are not different – as pets, for trophy, ornaments and adornments, and for medicinal purposes. Complete ban on the trade may not necessarily solve the problem as these organizations would still always find a way to achieve their aim. For instance, an estimate of up to 120,000 reptiles was illegally kept in Norway, despite the fact that there is a ban on keeping reptiles there (Sunde, 2010). Although pronouncement of species status by CITES is to monitor the populations of these animals and do everything possible to save them from further decline and subsequent extinction, there is a rise in the demand for endangered species as the value keeps increasing, strengthening the motivation to offend (Sollund, 2011). Period between a pronouncement of ban on a species and when it takes effect (move to CITES I from CITES II appendix) is usually characterized by rise in domestic trade (Moyle, 2003) and also in trafficking thus, exacerbating species decline (Rivalan *et al.*, 2007). In Mexico for example, a case study of parrot trade shows that ban will reduce transnational trade in the bird, but not the poaching for local markets as a result of cultural practices and traditions (Guzman *et al.*, 2007).

In the short term, complete ban on species trade would show positive results. This can be seen in the case of ban on ivory when it was first introduced in 1989 leading to a rise in elephant populations. Prior to this, there was a period of uncontrolled legal ivory trade from 1979 to 1989 when Africa's elephant population more than halved from 1.3 million to 600,000. This called for a worldwide ban on ivory trade by CITES in 1989. Consequently, there was a dramatic fall in poaching levels for the immediate few years afterwards. For the past two decades again, elephant poaching is at the highest level despite listing of African elephant in CITES Appendix I (endangered species threatened with extinction) except in Botswana, Namibia, Zimbabwe and South Africa, where it is listed in Appendix II. This was after these countries requested for a downgrade in the status of their elephant populations owing to their greater numbers. In response to the calls by countries with healthy populations of elephants, CITES permitted one-off sales of ivory from elephants that had not been illegally killed to Japan in 1999, and again in 2008. This led to the death of over 1,059 African elephants with their tusks removed between 2000 and 2002 owing to a growing demand for ivory, although the intention of those sales was to mitigate same as enumerated by Lawson and Vines (2014).

As evidenced that non-state actors involved in poaching are more heavily armed than ever before, use of force in response to the crisis is argued to be the only effective measure, or it might contribute to further destabilization (Lawson and Vines, 2014). Lemieux and Clarke (2009) however submitted that total ban in the long run may not be effective as a result of evolving economic and, social and cultural circumstances but it has been argued by Sollund and Maher (2015) that regulation of the trade would give a wide range of possibilities for fraud and corruption and legitimate the abuse and killing of endangered species at an alarming rate. Reasons given being that stakeholders in the legal wildlife trade are prone to committing offences, laundering profits and circumventing regulations (Wyatt, 2009), and even when these criminal groups are not controlling the trade, it remains highly organized (Sun and Wyler, 2009). Criminal profiles of IWT offenders are not kept but those in the trade include poor hunters and villagers, legitimate businesses moguls, crime groups, general consumers and corrupt officials, with motivation to keep going (Wyatt, 2013). Heavy arms, mobility and resources to carry out bribery and complicated trafficking operations are possessed by organized groups involved in the illegal trade. These make it easy for them to fight wildlife protection rangers (Wyatt, 2013). Criminal groups involved in the trade use the same routes for trafficking drugs and wild animals, using live or dead animals to conceal narcotics and launder drug money (Zimmermann, 2003) and in some other instances, they engage in series of offences to cover up their track such as forging CITES import permits and export

certificates, under-reporting numbers of animals poached, selling wild caught animals as captive-bred, dyeing of bird feathers, smuggling of birds in cylinders and sending them as air freight, alongside bribery of officials as highlighted by Warchol *et al.* (2003). Consumers of wildlife products are not helping matters. They are willing to pay greater amounts hence the illegal trade is also encouraged by a demand for wildlife products that exceeds what the market can legally supply leading to a continued increase in the value of illegal wildlife products (Wyer and Sheikh, 2008). In addition, Wyatt (2009) reported that enforcement and prosecution officials are not left out in the corruption menace as they sell stocks of ivory claiming inability to reduce demand for ivory in their documentation meaning that every stakeholder is involved in IWT one way or the other.

Regulated Wildlife Trade and Sustainable Conservation

An all inclusive regulated wildlife trade, bringing together all involved to reach an agreement on better ways to ensure perpetual species survival is likely to solve the menace of species exploitation from the root. These stakeholders would include subsistence poachers closest to the resource, armed large scale poachers from within and outside source countries, traders in the resource including those operating the black market, wildlife protection officers, nature researchers and scientists, conservationists and wildlife managers, representatives of national governments, non-governmental organizations working on nature protection, international organizations, enforcement and prosecuting agencies, and the resource end users as it has been established that dialogue and reaching consensus is a better tool in biodiversity protection and conservation (Sotolu, 2016). The stakeholders would be sourced from all CITES signatory states to ensure a global solution to a global crisis. If traders in the business will not agree with CITES, at least they would not wish for their business to collapse. They will have to know that even though they get buoyant financial gains from it, there will be an end to the trade when the species of interest are completely exhausted (extinct). Instead of waiting for this to happen, which will also have serious devastating consequences on the quality of life for humans, a realistic and pro-active approach should be adopted and fast.

Challenges to Regulated Wildlife Trade

Legitimate multinationals and businesses behind the illegal wildlife trade would pay extra amount for regeneration of these species, serving as payment for environmental services. There will also be need for them to abide by bag limits; hunting quotas; and season of catch to ensure sustainability. On the part of the conservationists, resource managers and protection officers, measures would have to be taken to boost species population. This would be by improving the habitat conditions of the traded species; expanding the range of species habitats through habitat management techniques; injecting more water holes and salt-lick sites; establishing more cover; and practicing artificial regeneration of floral species that serve as food and cover for both traded and prey species to complement natural capacity. These will ensure that as species are being harvested, natural stock is being replenished. This would mean exploiting maximally the environmental potential to sustain more species populations. Pushing the environmental capacity to its threshold in favour of preferred species would have an impact on the populations of other species of plants and animals too as a result of the competitive exclusion principle (Gause hypothesis), which states that no two species can occupy the same niche at the same time. Wildlife scientists, biologists, ecologists and the rest would synergize on how to accommodate the regenerating populations within environmental limits for a balanced ecosystem.

On the parts of environmental policy researchers and sociologists, it would be essential to understand how reliant armed non-state actors are on illegal wildlife trade in order to investigate why poaching and not something else for their sustenance. This would assist in

examining what the effect of successful implementation of policies to deter the illegal trade will have on the groups. It is worthy to explore the possibility of these groups turning to other means of funding their activities, which could include involvement in other forms of transnational crime. In addition, it is essential to have targeted research on the long-term implications of the trade for state institutions, development and security which will support political collaboration. It is expected that this collaboration between stakeholders and countries involved ensure sustenance of strong and working policy initiatives which is all inclusive to curb the illicit trade, foster cooperation on transnational movement of goods and uphold international treaties. In the end, regulated wildlife trade will eventually be achieved bringing into focus regulated exploitation.

Conclusions

Illegal exploitation of wildlife resources at a massive scale keeps eroding our world's wild stock as we keep strategizing on ways to stop it through enforcement and prosecution. Evasion of justice, skipping of penalties, dodging detection and arrests, and gap in record keeping are parts of the milestones against legal efforts. Regulation of the trade while catering for all could manage it in a more holistic way. National laws on the management of wildlife resources are supposed to be synchronized as these resources recognize only ecological boundaries. Variation in regulations stipulating which animal products can be legally traded by country results in a parallel legal and illegal trade. Illegal trade in wildlife and its resources is a nib in the bud of sustainable wildlife conservation and is driving many species toward extinction. A pro-active, acceptable and feasible solution is of urgent priority in order to guarantee the security of our wildlife. Regulation of the trade would inevitably proffer a more flexible solution to species protection and will consequently be more effective due to the fact that human minds seem to reason better under non-rigid circumstances.

References

- CITES (2006). CITES (Convention on International Trade in Endangered Species) Notification to the Parties, No. 2006/074 (December 14, 2006).
- CITES (2013). CITES (Convention on International Trade in Endangered Species) Secretary-General welcomes adoption of UN Commission on Crime Prevention and Criminal Justice draft resolution recognizing wildlife crime as a serious crime. [online]. Accessed 24 September 2014.
- Guzmán, J., Saldaña, M., Teyeliz, A., Grosselet, M. and Gamez, J. (2007). The Illegal Parrot Trade in Mexico. Defenders of Wildlife. Available at: www.defenders.org/mexicanparrot Accessed on 25 June 2014.
http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/.
http://www.cites.org/eng/news/sundry/2013/20130502_ccpcj_resolution.php Accessed 24 September 2014.
- IFAW (2011). Stopping Illegal Wildlife Trade. A Publication of the International Fund for Animal Welfare (IFAW), 15pp.
- Lawson, K. and Vines, A. (2014). Global Impacts of the Illegal Wildlife Trade. The Costs of Crime, Insecurity and Institutional Erosion, UK, Chatham House. 51+xpp.
- Lemieux, A. and Clarke, R. (2009). The International Ban on Ivory Sales and Its Effects on Elephant Poaching in Africa. *British Journal of Criminology* 49(4):451-471.
- Lin, J. (2005). Tackling Southeast Asia's Illegal Wildlife Trade. *Yearbook of International law and contribution*, pp.191-208.
- Milliken, T. (2004). Illegal Trade in Ivory and Rhino Horn: An Assessment Report to Improve Law Enforcement Under the Wildlife TRAPS Project. USAID and TRAFFIC. 26+iiipp.

- Moyle, B. (2003). Regulation, Conservation and Incentives. In: S. Oldfield (ed), *The Trade in Wildlife Regulation for Conservation*. London: Earthscan.
- Rivalan P., Delmas V., Angulo E., Bull L., Hall R., Courchamp F., Rosser A, M. and Leader-Williams N. (2007). Can Bans Stimulate Wildlife Trade? *Nature*. 447:529-530.
- Sollund R. and Maher J. (2015). *The Illegal Wildlife Trade: A Case Study Report on the Illegal Wildlife Trade in the United Kingdom, Norway, Colombia and Brazil. A Study Compiled As Part of the EFFACE Project*. Oslo and Wales: University of Oslo and University of South Wales. 46+xvipp.
- Sollund, R. (2011). Expressions of Speciesism: The Effects of Keeping Companion Animals on Animal Abuse, Animal Trafficking and Species Decline. *Crime, Law and Social Change*, 55(5):437-451.
- Sotolu, R.O. (2016). *Assessment of Wildlife Policy and Its Impact on Human Wildlife Conflict Management in Cross River National Park, Nigeria. A Masters Degree Thesis Submitted to the Department of Wildlife and Range Management, Federal University of Agriculture, Makurdi Nigeria*. 80+xvipp.
- Sun, W. and Wyler, P. (2009). *International Illegal Trade in Wildlife: Threats and US policy*. Washington (DC) USA: Congressional Research Service.
- Sunde, S. (2010). Ett av tusen ulovlige reptiler i Norge blir beslaglagt? [One of a thousand reptiles confiscated?] *Miljøkrim. Tidsskriftet for miljøkriminalitet*. [online].
- UN Chronicle (2014). *Fighting Wildlife Trade in Kenya*. Vol. LI. No 2, 2014. The Magazine of the United Nations. 3pp.
- UNEP (2014). *Illegal Trade in Wildlife*. United Nations Environment Programme (UNEP) Year Book 2014 Emerging Issues Update. Pp 24-29.
- UNEP-CITES-IUCN-TRAFFIC (2013). “Elephants in the Dust – The Africa Elephant Crisis: A Rapid Response Assessment”: www.cites.org/common/resources/pub/Elephants_in_the_dust.pdf.
- van Uhm, D. (2014). *Illegal Wildlife Trade to the EU and Harms to the World*. In T. Spapens, R. White and. Huisman W (eds.). *Environmental Crime and the World*. London: Ashgate.
- Warchol G., Zupan L., and Clarke W. (2003). *Transnational Criminality: An analysis of the illegal wildlife market in Southern Africa*. *International Criminal Justice Review*. 13(1):1-26.
- WWF (2014). *World Wildlife Fund for Nature. Living Planet Report 2014. Species and Spaces, People and Places*. [online]. Accessed 7 October 2014.
- Wyatt, T. (2009). Exploring the Organization in Russia Far East’s Illegal Wildlife Trade: Two Case Studies of the Illegal Fur and Illegal Falcon Trades. *Global Crime*, 10 (1 & 2):144-154.
- Wyatt, T. (2013). *The Local Context of Transnational Wildlife Trafficking: The Heathrow Animal Reception Centre*. In R. Walters, D. Westerhuis, and T. Wyatt (eds.). *Emerging Issues In Green Criminology. Exploring Power, Justice and Harm*. Basingstoke: Palgrave.
- Wyler, L.S. and Sheikh, P.A. (2008). *International Illegal Trade in Wildlife: Threats and U.S. Policy*. CRS Report for Congress. 45+iii pp.
- Zimmerman, M. (2003). *The Black Market for Wildlife: Combating Transnational Organized Crime in the Illegal Wildlife Trade*. *Vanderbilt Journal of Transnational Law*. 1 (36): 1657.