

## Wildlife crime: a global problem

Linzi Wilson-Wilde

Accepted: 13 May 2010 / Published online: 29 May 2010  
© Springer Science+Business Media, LLC 2010

Wildlife crime, the illegal trade in animals and animal products, is a growing concern, with estimates of the cost ranging from US\$10 billion up to US\$20 billion globally per year [1–3]. This equates to approximately 5% of the size of the international drug trade [2–4]. However, resources allocated to combating this crime do not compare. While broader attention to this problem is beginning to occur, the application of forensic techniques is predominantly in the research and educational arenas. Currently a number of international networks have been established, including the INTERPOL Wildlife Crime Working Group (<http://www.interpol.int/public/EnvironmentalCrime/Wildlife>) and TRAFFIC (Wildlife Trade Monitoring Network) ([www.traffic.org](http://www.traffic.org)). However these networks have not been significantly funded and instead predominantly rely on public donations and member contributions.

Animals most commonly targeted include birds, reptiles, insects, fish and large game animals. Rare or endangered species are particularly targeted by collectors, or for the pet trade. Some species are chosen for the end product such as Shahtoosh wool from the Tibetan Antelope; which must be killed in order to harvest the wool. Recently the trade in rhinoceros horn and ivory has markedly increased. Traditionally rhinoceros horn is used for Yemeni dagger handles, but recently there has been a significant increase in illegal poaching and trafficking of the horn, on route to the Far East. This is due to the belief in the medicinal benefits of ground up horn in the treatment and prevention of cancer. Biopiracy (illegal, unauthorized use of genetic information taken from wildlife protected under wildlife

law for commercial gain) is also linked to scientists conducting research, such as in the creation of new pharmaceutical agents.

The trade in wildlife is very popular in China where it was found that there are a large number of CITES I and II (the Convention on International Trade in Endangered Species of Wilde Fauna and Flora) listed species offered for sale on the Chinese-Language internet (in China, Hong Kong and Taiwan); with over 20,000 advertisements in China alone [5]. An important move has been the internet's largest trading venue eBay prohibiting the trade in live animals (except some fish in the United States) and ivory.

Wildlife crime is one portion of a much bigger issue and although there is some active research in the area, there is a lack of a focussed effort that is backed by resources and political support. Offenders exploit this gap to circumvent the basic provisions currently in place for their apprehension. Without strong centralized or collaborative international control this important issue will continue and will increase. It is estimated that in Brazil 40% of organized crime is now associated with wildlife crime [6] and the figure is rising, due in part to the global economic turn-down and disparities between the penalties and financial gains when compared to other organised crime types.

There is a worldwide network of suppliers, distributors, middlemen and traffickers with contacts in habitat countries and involvement of customs officers in others. Offenders are often associated with other trafficking offences such as drugs, guns and humans and flow-on offences such as forgery, with the counterfeiting of CITES documents, export/import permits and documents to reflect fictitious breeding by registered breeders [7]. Offenders are often part of large groups which are organized, use jargon and nicknames to conceal communications and utilise technology such as Skype and the internet [8].

---

L. Wilson-Wilde (✉)  
ANZPAA National Institute of Forensic Science,  
Melbourne, Australia  
e-mail: linzi.wilson-wilde.nifs@anzpaa.org.au

Transnational wildlife crime is facilitated by the massive size of some countries with areas difficult to reach and police, inadequately controlled borders, limited economic alternatives for indigenous populations, livelihoods based on illegal activities due to inadequate resources for law enforcement, weak or disinterested governments with ineffective laws and penalties, and corruption. Contraband wildlife and its derivatives are exclusive products often in high demand and provide lucrative markets. Purchasers are often ignorant or uncaring of the mode in which the animals are transported, with up to 90% of live traffic dying in transit and subsequent flow on effects to the environment. Due to the lack of resources allocated to combating wildlife crime, Non-Government Organizations (NGOs) are becoming involved in law enforcement which should be of concern at the international level.

Wildlife crime impacts on the Australian and New Zealand environment due to the unique nature of the region's fauna and flora and its close proximity to south-east Asian criminal networks. The Australia New Zealand Policing Advisory Agency—National Institute of Forensic Science (ANZPAA NIFS) ([www.anzpaa.org.au](http://www.anzpaa.org.au)) facilitates the Australian Wildlife Forensics Network. At a recent INTERPOL meeting of the Wildlife Crime Working Group (Manaus, Brazil, September 2009) numerous international representatives provided examples of seizures of Australian animals illustrating that Australia is being targeted for its unique fauna by organized criminal networks. The INTERPOL Wildlife Crime Working Group is actively involved in conducting targeted operations on organized crime. This involves sharing intelligence, capability building initiatives including training and method development and general information.

There are few capacity building activities currently occurring globally. The Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN) initiative has the largest potential to affect Australia. However Australia is not currently involved in the ASEAN-WEN project; TRAFFIC has assisted in this initiative. Additionally, the world's only laboratory dedicated to the forensic analysis of wildlife crime (the US National Fish and Wildlife Forensic Laboratory) recently announced the creation of a Society for Wildlife Forensic Sciences and an associated tri-annual conference dedicated to wildlife forensic sciences (the first meeting was held in Ashland Oregon, 19–23 April 2010).

Partnerships between multiple agencies are very effective in identifying contraband and perpetrators and deterring

other offenders. Effective action requires collaboration between investigators, forensic specialists and Governments of source, transit and recipient countries. It requires the commitment of government and law enforcement agencies, international collaboration and information exchange and importantly the subsequent prosecution of offenders. The prosecution should focus on the theft of a public resource, which is motivated by profit and presents a potential risk to human health in the spread of diseases (such as avian influenza (H5N1) and severe acute respiratory syndrome (SARS) [1]). This effort needs to be in conjunction with wildlife and habitat protection, promotion of eco trade (which can also target former poachers), public outreach campaigns, sustainable agriculture and funding for further research. Eco-tourism communities can earn 2–3 times the money from tourism compared to poaching which ensures a long term funding source for these communities.

Research provides information that underpins the impact of wildlife crime and assists with the development of tools, such as species identification tests used to prosecute offenders. Initiatives such as the dedication of this edition of this journal to wildlife crime will provide attention but much more is needed if this issue is to be thoroughly addressed.

## References

1. Wyler LS, Sheikh PA. CRS report for congress—international illegal trade in wildlife: threats and U.S policy. Hauppauge: Nova Science Publishers; 2008.
2. Brack D. The growth and control of international environmental crime. *Environ Health Perspect.* 2004;112:80–1.
3. Holden J. By hook or by crook a reference manual on illegal wildlife trade and prosecutions in the United Kingdom. The Royal Society for the Protection of Birds; 1998.
4. Ong DM. The convention on international trade in endangered species (CITES 1973): implications of recent developments in international and EC law. *J Environ Law.* 1998;10.
5. Xianlin M. Law Enforcement activities regarding Falcons, Tibetan Antelope and trade on the internet. Presentation at the Interpol Wildlife Crime Working Group Meeting, Manaus, Brazil; 2009.
6. Renctas—national network to fight the trafficking of wild animals. First national report on wild fauna traffic. Brazil 2001; [www.rencta.org.br](http://www.rencta.org.br).
7. Lowther J, Cook D, Roberts M. Crime and punishment in the wildlife trade. A WWF/TRAFFIC Report. 2002; [www.wwf.org.uk](http://www.wwf.org.uk).
8. IFAW (International fund for animal welfare) caught in the web: wildlife trade on the internet. 2005; [http://www.ifaw.org/ifaw/dfiles/file\\_562.pdf](http://www.ifaw.org/ifaw/dfiles/file_562.pdf).