

**The Role of the Investigative and Forensic Accountant
in Combatting the Illegal Wildlife Trade**

Research Project for Emerging Issues/Advanced Topics Course

Master of Forensic Accounting Program University of Toronto

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1.0 Introduction

1.1 Executive Summary

Indicators of the illegal wildlife trade are present in all aspects of the supply chain, whether its customs and border patrol, the shipping and transport industry, or the final exchange of wildlife products sold to the ultimate buyer. Common throughout all stages of the supply chain is money. Like all other illicit crimes, the illegal wildlife trade is perpetrated for one sole purpose: profit.

Money is exchanged in all supply chain activities, including: the payment of services to actors in the supply chain (like poachers or transporters), the payment of bribes to officials who can help wildlife products move without suspicion, the sale of the wildlife products to the customer, and the transfer of profits back to the leaders in charge of the illegal wildlife trade network. While each impacted area of the supply chain has their own indicators (customs agents, transport companies, etc.) to help them identify whether illegal wildlife trade activities are occurring within their purview, an area that is often overlooked is the financials associated with this crime.

Financial investigations into illegal wildlife trade offences are essential to identifying the expansive networks associated with this crime. For example, custom agents seizing wildlife products at a border inspection will implicate the individual attempting to move the product across borders; however, this activity will not inform the customs agents who else is involved in this crime, beyond this individual. Since money is the common thread through which all activities in the illegal wildlife trade supply chain are connected, following the financial trail is essential to identifying all parties involved in the perpetration of this crime.

Financial investigations are an important component in solving the illegal wildlife trade problem and should be conducted, in parallel, to investigations undertaken related to the predicate offence. “Financial investigations into illegal wildlife trade offences will require coordination across a wide range of authorities who may not typically work together, such as environmental crime investigators, financial intelligence units, anti-corruption authorities”, or regulatory authorities.¹

This paper focuses on the financial investigation portion of illegal wildlife trade investigations. As such, this paper should be read with the mindset of financial investigations being conducted to support law enforcement or regulatory body investigations.

1.2 Objective, Background and Scope of Research

This paper examines laundering of funds and the associated financial patterns related to the illegal wildlife trade. Additionally, this paper explores how an Investigative and Forensic Accountant (“IFA”) can contribute to combatting wildlife crime. The illegal wildlife trade is one of the largest crimes in the world, producing proceeds estimated between 7 and 23 billion U.S. dollars, annually, across the globe.² This amount is approximately one quarter of the annual global proceeds generated from the legal wildlife trade.³

The motivation to write this paper comes from the continued development of the field of Forensic Accounting, with a goal to enhance education and knowledge in the

¹ *Following the money of the illegal wildlife trade to stop the trade in endangered species and the laundering of profits* (2020). Page 3. Issued by FATF.

² *Money Laundering and the Illegal Wildlife Trade* (2020). Page 13. Issued by FATF.

³ *Ibid.* Page 13.

Forensic Accounting field. This research will enable future Chartered Professional Accountants (“CPA”) and IFA’s working with anti-money laundering (“AML”), law enforcement, court systems, etc. to aid in providing objective, unbiased, and non-partisan evidence in illegal wildlife trade cases. In many jurisdictions, the number of financial investigations conducted into the illegal wildlife trade is not proportionate with the scale, international nature, and volume of proceeds tied to this crime.⁴

The scope of this paper, and the content reviewed, was obtained from the following materials:

- Canadian and international regulations regarding wildlife crime.
- Canadian banking regulations and financial intelligence guidance.
- International and Canadian guidance on money laundering and proceeds of crime indicators related to the illegal wildlife trade.
- Newspaper articles.
- Seaspiracy a Netflix Original Documentary.
- Interviews were conducted with the following individuals:
 - Stuart Davis, Scotiabank
 - Stuart Davis has more than 30 years’ experience working with global financial institutions in the U.S. and Canada, and is currently serving as the Executive Vice President and Group Chief AML Officer for Scotiabank’s Financial Crimes Risk Management division. He has spent more than half of his career as financial crimes risk professional,

⁴ *Money Laundering and the Illegal Wildlife Trade* (2020). Page 27. Issued by FATF.

running AML, sanctions and fraud programs, as well as associated data, analytics and technology. Mr. Davis is also an ardent supporter of human rights and, since 2015, has championed financial institutions in the fight against human trafficking and online child sexual exploitation. In 2020, he helped launch Project Shadow: a public-private partnership co-led by Scotiabank to detect and disrupt illicit financial flows from online child exploitation in Canada. Mr. Davis chairs the Canadian Banker's Association sub-committee on AML, Money Laundering Specialists Group, co-chairs Canada's Department of Finance's Advisory Committee on Money Laundering and Terrorist Financing, and is a member of WeProtect's policy board. In 2021, Mr. Davis joined the Global Coalition to Fight Financial Crime, in an effort to increase the effectiveness of the financial crime risk regime, globally.

- Detective Constable Rob Vingerhoets, York Regional Police, Financial Crimes Unit – Proceeds of Crime Section
 - Rob Vingerhoets has been a police officer with York Regional Police for over 18 years and is currently assigned to the Proceeds of Crime and Asset Forfeiture section of the Financial Crimes Unit, holding the rank of Detective Constable. In this role, he is part of a team investigating money laundering and proceeds of crime, identifying and seizing criminal assets which may be subject to forfeiture, and providing financial investigative support to other criminal

investigations. Detective Constable Vingerhoets previously spent six years in the Major Fraud Unit where he developed a specialization in investigating payment card frauds and identity thefts. Detective Constable Vingerhoets has built partnerships between law enforcement and the retail sector to combat organized retail crimes, and he has developed and currently teaches the York Regional Police Financial Crimes Investigations course for criminal investigators.

- In 2019 Detective Constable Vingerhoets was seconded to Interpol in Lyon, France, where he joined the Works of Art Unit and examined money laundering related to cultural heritage crime, specifically art theft and antiquities trafficking.
- Detective Constable Vingerhoets has a Master's degree in Forensic Archaeology from Bournemouth University in the United Kingdom. In addition to his financial crimes duties, he is a member of the York Regional Police Archaeological Forensic Recovery Team, which works to apply archaeological methodology to recover human remains and evidence.
- Other industry experts, who have given permission to use their comments in support of research conducted for this paper but have requested anonymity. Professor Len Brooks is aware of who these industry experts are.

1.3 Acronyms

AML/ATF	Anti-Money Laundering and Anti-Terrorist Financing
CPA	Chartered Professional Accountant
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
FATF	Financial Action Task Force
FinCEN	Financial Crimes Enforcement Network
FINTRAC	Financial Transactions and Reports Analysis Centre of Canada
IFA	Investigative and Forensic Accountant
MFAcc	Master of Forensic Accounting Program (at the University of Toronto Mississauga)
ML	Money Laundering
OSINT	Open-Source Intelligence
PCMLTFA	Proceeds of Crime (Money Laundering) and Terrorist Financing Act
SAR	Suspicious Activity Report (U.S. Regulations)
STR	Suspicious Transaction Report (Canadian Regulations)
TF	Terrorist Financing
Tor	The Onion Routing (a dark web browser enabling anonymous communication)
UNODC	United Nations Office on Drugs and Crime
WAPPRIITA	Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act
WAPTR	Wild Animal and Plant Trade Regulations

1.4 Definitions

The terms defined below are used throughout this paper. These definitions are outlined to assist the reader in understanding money laundering in the context of the illegal wildlife trade.

Wildlife Crime/Illegal Wildlife Trade/Wildlife Trafficking

Wildlife crime, also known as the illegal wildlife trade and wildlife trafficking, “refers to the trade of wild plant and animal species in contravention with both national and international laws and regulations. Wildlife crime can include commercial, import,

export, and re-export activity and can occur at any stage in the supply chain, including but not limited to sales, delivery, transport, purchase, and possession of protected species of flora and fauna.”⁵

Money Laundering

Money laundering (“ML”) is defined by the Government of Canada as “the process used to conceal or disguise the origin of criminal proceeds to make them appear as if they originated from legitimate sources.”⁶

The ML cycle is broken down into three stages:⁷

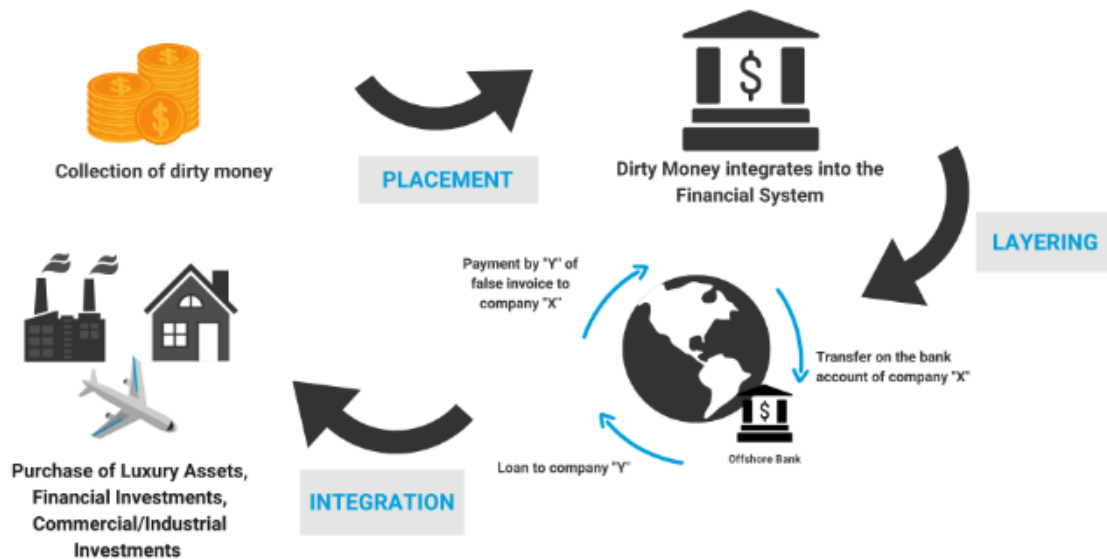
1. Placement: moving funds received from the crime into the legitimate financial system.
2. Layering: the transfer of funds between people, entities, and institutions to disguise the original source.
3. Integration: criminals gain access to the money, which now appears to be from legitimate sources.

⁵FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

⁶ Government of Canada (2023). Canada's Anti-Money Laundering and Anti-Terrorist Financing Regime: Report on Performance Measurement Framework. Retrieved from <https://www.canada.ca/en/department-finance/programs/financial-sector-policy/canadas-anti-money-laundering-and-anti-terrorist-financing-regime-report-performance-measurement-framework-released-march-2023.html>

⁷ UNODC (n.d.). Money Laundering. Retrieved from <https://www.unodc.org/romena/en/money-laundering.html>

The United Nations Office on Drugs and Crime (“UNODC”) visualizes the ML cycle, as outlined below:



Source: United Nations Office on Drugs and Crime (n.d.). Retrieved from <https://www.unodc.org/romena/en/money-laundering.html>

Investigative and Forensic Accountant

Investigative and Forensic Accountants (“IFA’s”) are trained in conducting “rigorous investigation of the financial aspects of a particular situation, usually with the objective of establishing evidence relating to possible or pending criminal or civil legal proceedings.”⁸

⁸ University of Toronto Mississauga (n.d.). The Master of Forensic Accounting Program. Retrieved from <https://mfacc.utoronto.ca/mfacc/program>

Open-Source Information and Open-Source Intelligence

Open-source information is publicly available information. Open-source intelligence (“OSINT”) is “intelligence produced by collecting, evaluating and analyzing publicly available information with the purpose of answering a specific intelligence question.”⁹

2.0 Overview of the Regulatory Environment

2.1 Canadian Banking Environment

The Canadian Banking System is fundamental to the Canadian economy. According to the Canadian Bankers Association, in 2020, 476 million transactions were logged at bank-owned Automated Banking Machines in Canada, 489 million online banking transactions were completed with the six largest banks in Canada, and 947 million mobile banking transactions were completed with the six largest banks in Canada.¹⁰

Like any Banking System, the Canadian Banking System can be exploited by individuals making money from committing crimes, who need to legitimize their proceeds of crime. The Financial Transactions and Reports Analysis Centre of Canada (“FINTRAC”) is a federal Government Agency that was established as Canada’s financial intelligence unit.¹¹ FINTRAC’s mandate, as Canada’s anti-money laundering and anti-terrorist financing (“AML/ATF”) regulator, is to help “combat money

⁹ SANS (February 23, 2023). What is Open-Source Intelligence? Retrieved from <https://www.sans.org/blog/what-is-open-source-intelligence/>

¹⁰ Canadian Bankers Association (2023). Focus: Fast Facts About the Canadian Banking System. Retrieved from <https://cba.ca/fast-facts-the-canadian-banking-system>

¹¹ Government of Canada (December 15, 2022). Financial Transactions and Reports Analysis Centre of Canada. Retrieved from <https://fintrac-canafe.canada.ca/intro-eng#>

laundering, terrorist activity financing and threats to the security of Canada, while ensuring the protection of personal information under its control”.¹²

FINTRAC assists law enforcement and national security agencies by developing actionable financial intelligence that helps provide evidence for investigations of ML and terrorist financing (“TF”) activities.¹³ The Proceeds of Crime (Money Laundering) and Terrorist Financing Act (“PCMLTFA”) is enforceable by FINTRAC.¹⁴ “The object of the PCMLTFA is:

- to implement specific measures to detect and deter money laundering and the financing of terrorist activities to facilitate the investigation or prosecution of money laundering and terrorist financing offences, including
 - establishing record keeping and client identification requirements for financial services providers and other persons that engage in businesses, professions or activities that are susceptible to being used for money laundering, and the financing of terrorist activities,
 - requiring the reporting of suspicious financial transactions and of cross-border movements of currency and monetary instruments, and
 - establishing an agency that is responsible for dealing with reported and other information;
- to respond to the threat posed by organized crime by providing law enforcement officials with the information they need to investigate and prosecute money

¹² Government of Canada (March 12, 2022). Mandate. Retrieved from <https://fintrac-canafe.canada.ca/fintrac-canafe/1-eng>

¹³ Ibid.

¹⁴ Ibid.

laundering or terrorist financing offences, while ensuring that appropriate safeguards are put in place to protect the privacy of persons with respect to personal information about themselves; and

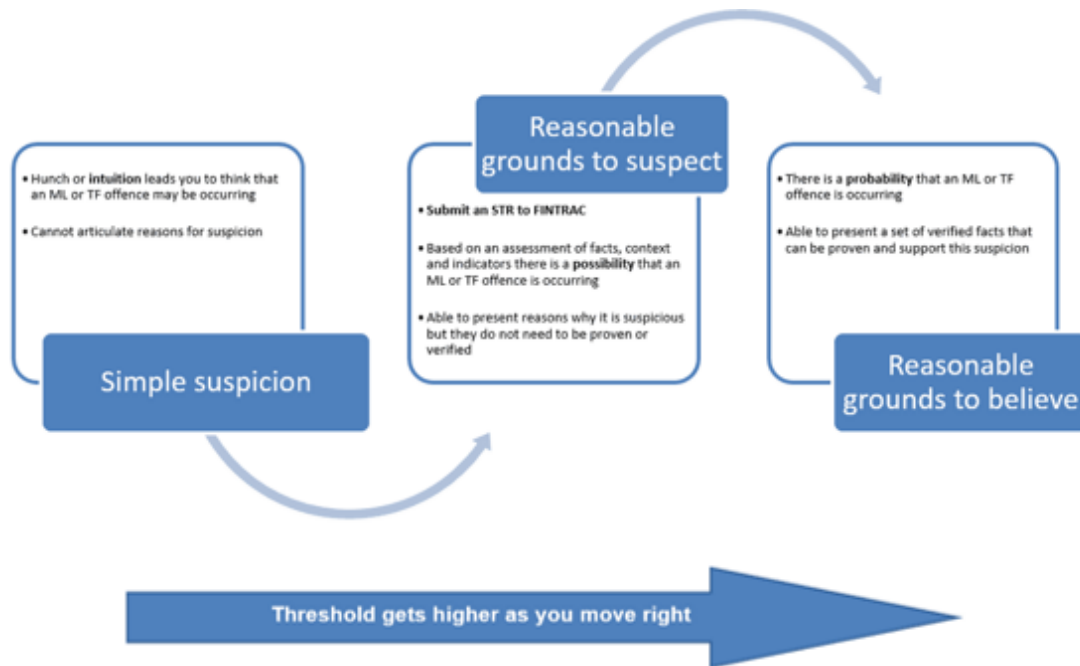
- to assist in fulfilling Canada's international commitments to participate in the fight against transnational crime, particularly money laundering and the fight against terrorist activities.”¹⁵

To assist with the reporting of suspicious financial transactions and of cross-border movements of currency and monetary instruments, the PCMLTFA requires that financial institutions report suspicious transactions to FINTRAC. A suspicious transaction report (“STR”) must be submitted to FINTRAC if a financial institution believes “there are reasonable grounds to suspect that a financial transaction that occurs or is attempted in the course of their activities is related to the commission or the attempted commission of an ML/TF offence.”¹⁶

Reasonable grounds to suspect are present when there is likelihood that an ML/TF act has occurred. The visualization below outlines FINTRAC’s threshold for suspicion:

¹⁵ Government of Canada (February 20, 2022). FINTRAC’s act and regulations. Retrieved from <https://fintrac-canafe.canada.ca/act-loi/1-eng#s1>

¹⁶ Government of Canada (2021). What is a suspicious transaction report? Retrieved from <https://fintrac-canafe.canada.ca/guidance-directives/transaction-operation/Guide2/2-eng>



Source: Government of Canada (2021). What is a suspicious transaction report? Retrieved from <https://fintrac-canafe.canada.ca/guidance-directives/transaction-operation/Guide2/2-eng>

2.2 International Wildlife Crime Regulatory Environment

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (“CITES”) is an international agreement between governments to protect wildlife from over-exploitation through international trade.¹⁷ To ensure international trade in specimens of wild plants and animals does not threaten their survival, CITES ensure trades of this nature are carefully regulated and controlled by all participating nations.¹⁸ Countries voluntarily join CITES, however, once joined each country is responsible for the creation of national laws to implement CITES.¹⁹ Since the trade in wild flora and

¹⁷ Government of Canada (July 6, 2017). Trade in protected species: frequently asked questions. Retrieved from https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/frequently-asked-questions.html#_01_1

¹⁸ Ibid.

¹⁹ Ibid.

fauna crosses borders between countries, the regulatory environment requires international cooperation to ensure certain species are safeguarded from over-exploitation and possible extinction.²⁰

2.3 Canadian Wildlife Crime Regulatory Environment

CITES came into force in Canada on July 3, 1975.²¹ In response to CITES, Canada implemented the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act (“WAPPRIITA”), federally.²² WAPPRIITA law was adopted in 1992, coming into force on May 14, 1996 when the Wild Animal and Plant Trade Regulations (“WAPTR”) supporting regulations were adopted.²³

WAPPRIITA “applies to the following animal and plant species:

- species on the CITES control list
- foreign species whose capture, possession, and export are prohibited or regulated by laws in their country of origin
- Canadian species whose capture, possession, and transportation are regulated by provincial or territorial laws
- species whose introduction into Canadian ecosystems could endanger Canadian species

²⁰ The Convention on International Trade in Endangered Species of Wild Fauna and Flora (n.d.). What is CITES? Retrieved from <https://cites.org/eng/disc/what.php>

²¹ Government of Canada (July 6, 2017). Trade in protected species: frequently asked questions. Retrieved from https://www.canada.ca/en/environment-climate-change/services/convention-international-trade-endangered-species/frequently-asked-questions.html#_01_1

²² Ibid.

²³ Ibid.

The act forbids the import, export and interprovincial transportation of these species, unless the specimens are accompanied by the appropriate documents (licences, permits). In all cases, the act applies to the plant or animal, alive or dead, as well as to its parts and any derived products.”²⁴

WAPTR identifies the flora and fauna species that are subject to the restrictions outlined in WAPPRIITA.²⁵

3.0 Wildlife Crime and Impacts on Society

3.1 Why is Wildlife Traded?

Wild animals and plants are used by humans for many reasons, including but not limited to: fashion, décor, medicine, construction, food, pets, religious ceremonies, and entertainment (zoos, aquariums, souvenirs, theme parks like SeaWorld, illegal fighting).²⁶ Not all wildlife trade is illegal; legal wildlife trade “involves thousands of different fauna and flora species, provides a source of income for millions of producers, raw materials for businesses and local collectors, and a staggering array of goods for hundreds of millions of consumers. It plays an undeniably fundamental role in regional, national, and international economies.”²⁷ However, broad impacts are present when wildlife trade is performed illegally. These impacts are outlined in sections 3.2 to 3.5 below.

²⁴ Government of Canada (February 8, 2023). About WAPPRIITA: wild species protection and trade. Retrieved from <https://www.canada.ca/en/environment-climate-change/services/environmental-enforcement/acts-regulations/wild-species-protection.html>

²⁵ Ibid.

²⁶ TRAFFIC (n.d.). Legal Wildlife Trade. Referenced from <https://www.traffic.org/about-us/legal-wildlife-trade/>

²⁷ Ibid.

3.2 Environmental Impacts

Wildlife crime poses many threats to animal species and the world's various ecosystems. Devastating impacts are already present around the world affecting our land, oceans and water, the air we breath, and the climate we live in. Next to habitat destruction, wildlife crime is the second-largest threat to various species, with declines seen of "populations of species on earth...by an average 40% between 1970 and 2000".²⁸

The most evident problem stemming from wildlife crime is when it causes overexploitation.²⁹ The impacts of overexploitation on the environment and earth's ecosystems are massive. This can cause species to be at risk of extinction, an issue which is prevalently publicized regarding elephants, rhinos, and tigers in Africa and Asia. Populations of species that are not currently endangered or threatened risk becoming endangered or threatened if wildlife trade is not completed sustainably.³⁰

Biodiversity and the balance of nature is greatly impacted on the entire food chain. For example, when tigers are poached and their population is close to extinction, more of their prey survives and breeds, increasing the population of these species. With increased prey populations, more grazing will occur as more prey requires food. With overgrazing, the resources of the natural environment (like grass) become overexploited, and the consequences continue down the food chain.

Another issue, which stems from overexploitation present in the fishing industry, is the impacts of bycatch. Bycatch is defined as "the incidental capture of non-target

²⁸ World Wildlife Fund (n.d.). Second-biggest direct threat to species after habitat destruction. Retrieved from https://wwf.panda.org/discover/our_focus/wildlife_practice/problems/illegal_trade/

²⁹ Ibid.

³⁰ Ibid.

species such as dolphins, marine turtles and seabirds”.³¹ When fishing gear is deployed, all types of marine life can get caught and hauled out of the water; unfortunately, a shocking amount of non-target species are included in the haul, and most are discarded overboard already dead or in the process of dying.³² To provide numbers on the size of this problem, the Netflix Original Documentary *Seaspiracy* provided the following bycatch statistics:³³

- 00:21:45. Studies estimate that up to 40% of all marine life caught is thrown overboard as bycatch.
- 00:24:47. Over 300,000 whales, dolphins and porpoises are killed every year by bycatch.
- 00:29:41. Approximately 500,000 sea turtles are killed every year by bycatch.
- 00:21:35. Approximately 50 million sharks are killed every year as bycatch.

Furthermore, issues arise when invasive species are introduced into ecosystems they are not native to. For example, in 2022 there were many media stories released in Canada related to ‘murder hornets’. These hornets, formally named Northern Giant Hornets (*Vespa mandarinia*), and also known as Japanese giant hornets, are native to “temperate and tropical regions in China, Korea, Japan and northern India”.³⁴ It is unknown how the northern giant hornet made it into Canada, and the only confirmed

³¹ World Wildlife Fund (July 6, 2015). Bycatch Overview. Retrieved from <https://www.worldwildlife.org/threats/bycatch#:~:text=Wherever%20there%20is%20fishing%2C%20there,the%20world's%20oceans%20each%20day>.

³² Ibid.

³³ *Seaspiracy*, A Netflix Original Documentary (2021). Ali Tabrizi Filmmaker / Director, Lucy Tabrizi Filmmaker / Assistant-Director, Kip Andersen Executive Producer.

³⁴ Government of Ontario (November 16, 2022). Northern Giant Hornets. Retrieved from <https://www.ontario.ca/page/northern-giant-hornets>

sightings have been in British Columbia.³⁵ But the question begs to be asked: why should Canadians care about the Northern Giant Hornets entering our country? “Northern Giant Hornets are predators of honey bees...as their colonies expand, Northern Giant Hornets can attack full-sized honey bee colonies, killing all the bees within the colony in...less than 24 hours”.³⁶ The importance of honey bees to food security and the overall health of the planet³⁷ had been widely publicized in recent years. Given the importance of honey bees, it is easy to understand the detriment ‘murder hornets’ could have to the Canadian environment, should their populations continue to expand.

3.3 Animal Welfare and Human Health

Animals, which are required to be kept alive when being traded, are often kept in horrible, inhumane conditions.³⁸ For example, fish farming “is a form of aquaculture in which fish are raised in enclosures to be sold as food”.³⁹ Per Seaspiracy, fish farms in Scotland were found to be in terrible conditions; fish were swimming around in circles where the water was filled with their own waste, in addition, fish were also seen being eaten alive by parasites in the farm.⁴⁰ Studies have shown that “farmed fish can get anemia, lice infestations, infectious diseases, chlamydia and heart disease”.⁴¹

³⁵ Government of Ontario (November 16, 2022). Northern Giant Hornets. Retrieved from <https://www.ontario.ca/page/northern-giant-hornets>

³⁶ Ibid.

³⁷ United Nations Environment Program (May 18, 2022). Why Bees are Essential to People and Planet. Retrieved from <https://www.unep.org/news-and-stories/story/why-bees-are-essential-people-and-planet>

³⁸ World Wildlife Fund (n.d.). Second-biggest direct threat to species after habitat destruction. Retrieved from https://wwf.panda.org/discover/our_focus/wildlife_practice/problems/illegal_trade/

³⁹ Animal Welfare Institute (n.d.). Fish Farming. Retrieved from <https://awionline.org/content/fish-farming>

⁴⁰ Seaspiracy, A Netflix Original Documentary (2021). Ali Tabrizi Filmmaker / Director, Lucy Tabrizi Filmmaker / Assistant-Director, Kip Andersen Executive Producer.

⁴¹ Ibid. 01:04:50

Wildlife crime also has significant impacts to human health. Zoonotic disease is an emerging public health threat according to the World Health Organization.⁴² Zoonoses (the plural form of zoonotic) are defined by the World Health Organization as “those diseases and infections naturally transmitted between people and vertebrate animals”.⁴³ The World Health Organization estimates “that, globally, about one billion cases of illness and millions of death occur every year from zoonoses. Some 60% of emerging infectious diseases that are reported globally are zoonoses. Over 30 new human pathogens have been detected in the last three decades, 75% of which have originated in animals”.⁴⁴

Animals kept in poor conditions have an increased likelihood of developing zoonoses, which by its definition can be transmitted to humans. The World Health Organization conducted a study into the origins of the SARS-CoV-2 virus (most commonly known as Covid-19). Within this study, four possible transmission pathways were reviewed, and diagrams were created to visualize each pathway, as contained in Appendix I.

3.4 Economic Impacts

Particularly in underprivileged countries, the economic impacts of wildlife crime are staggering. Some families, especially in rural areas, rely on local animals and plants for food, income, and fuel supply.⁴⁵ The commercial fishing industry in Somalia is an example of how wildlife crime can impact individuals’ livelihoods. The antics of

⁴² World Health Organization (n.d.). Zoonotic disease: emerging public health threats in the Region. Retrieved from <https://www.emro.who.int/about-who/rc61/zoonotic-diseases.html>

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ United Nations Environment Program (May 18, 2022). Why Bees are Essential to People and Planet. Retrieved from <https://www.unep.org/news-and-stories/story/why-bees-are-essential-people-and-planet>

Somalian pirates were publicized worldwide related to the Maersk Alabama hijacking, which was turned into the film Captain Phillips, starring Tom Hanks.⁴⁶ What might not be as well known, is the possible reasons Somalians engage in acts of piracy. Per Seaspiracy, piracy in Somalia began in part because of illegal fisheries.⁴⁷ Many Somalians rely on the native fish supply to feed their families and as a source of income. With the presence of illegal commercial fishing vessels in Somalia, the population of fish began to decrease rapidly as overexploitation occurred. As a result, Somalians could not rely on fishing as a stable food supply or source of income. In turn, Somalian pirates began invading fishing vessels to steal fish back.

3.5 Connections to Other Crime Types

Wildlife crime is a lucrative, low risk business, run by international networks and organized crime groups.⁴⁸ The organized crime groups committing wildlife crime are often linked to other criminal activity, such as the trafficking of illegal drugs and firearms, as well as human trafficking⁴⁹. Additionally forced labour, a modern form of slavery, is reported to be utilized in 47 countries dealing in seafood trade.⁵⁰

⁴⁶ Encyclopedia Britannica (April 1, 2023). Maersk Alabama hijacking piracy incident, Indian Ocean [2009] Retrieved from <https://www.britannica.com/event/Maersk-Alabama-hijacking>

⁴⁷ Seaspiracy, A Netflix Original Documentary (2021). Ali Tabrizi Filmmaker / Director, Lucy Tabrizi Filmmaker / Assistant-Director, Kip Andersen Executive Producer.

⁴⁸ World Wildlife Fund (n.d.). Illegal Wildlife Trade. Retrieved from <https://www.worldwildlife.org/threats/illegal-wildlife-trade>

⁴⁹ Ibid.

⁵⁰ Seaspiracy, A Netflix Original Documentary (n.d.). Join the Movement. Retrieved from <https://www.seaspiracy.org/>

Since wildlife crime is a low risk, high profit business, it suggests that organized crime groups utilize wildlife crime to grow their profits; this helps fund other criminal activities in which the groups are engaged.⁵¹

4.0 Recent Research and Ties to the Banking Industry

4.1 FINTRAC Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade (Canada)

On January 31, 2023, FINTRAC published Laundering the Proceeds of Crime from Illegal Wildlife Trade Operational Alert (“The Operational Alert”). This Operational Alert was released with the intention to help entities recognize financial transactions that are suspect of being related to laundering funds associated with the illegal wildlife trade of animals.⁵² Many species native to Canada are high-risk for the illegal wildlife trade, including “bears (particularly black, grizzly and polar bears), cougars, geese, lynx, moose, crabs, eels (elvers), lobsters, turtles (particularly blanding’s and spotted turtles), sharks and wolves.”⁵³

The results of FINTRAC’s review found the following:

- General ML Methods⁵⁴
 - Primary transaction tenders were cash, wire transfers, and email money transfers.

⁵¹ FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

- Money was laundered using nominees (an individual authorized to open accounts and conduct transactions on behalf of another person or entity), front companies (owned by wildlife traffickers or their associates), and funds were layered between related accounts.
- Many individuals investigated were involved, or suspected to be involved in, other criminal activities such as fraud, drug trafficking, etc. and were members of organized crime groups.
- **Illegal Import of Wildlife into Canada⁵⁵**
 - Primary transaction tenders were frequent wire transfers to nations where wildlife crime is a prevalent concern such as China, including Hong Kong, Australia, and Sub-Saharan Africa.
 - Transactions were often in rounded dollar amounts.
 - Funds were frequently sent to individuals that are linked to the illegal wildlife trade when reviewed via open-source information.
 - Individuals associated with the illegal importation of wildlife into Canada made payments outside of their normal account activity, to entities involved with animals (i.e., zoos, aquariums, etc.).
 - Canadian importers being used as financial intermediaries for wildlife trafficking were found to receive funds from recipients and then send those funds to suppliers in other jurisdictions.
 - See Appendix II, for an image depicting the illegal importation of exotic wildlife into Canada.

⁵⁵ FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

- Illegal Export of Wildlife from Canada⁵⁶
 - Individuals associated with the illegal exportation of wildlife from Canada made excessive purchases to postal services, shipping entities, animal logistics services, and cargo services.
 - Excessive purchases were made related to animal transportation, including cages and freight equipment.
 - Received funds came from individuals or entities involved with animals (i.e., zoos, aquariums, pet stores, etc.) and often came from the U.S. or countries overseas, such as China.
 - Funds were received primarily from electronic money transfers, often in rounded dollar amounts.
 - Remittance information sometimes referred to animals or species that are high-risk for being trafficked.
 - See Appendix II, for an image depicting the illegal exportation of exotic wildlife from Canada.

Through FINTRAC’s analysis, ML indicators were developed to assist entities in identifying and reporting transactions suspected of being related to the illegal wildlife trade. See Appendix II for ML indicators developed by FINTRAC.

4.2 FATF Report: Money Laundering and the Illegal Wildlife Trade (Global)

The Financial Action Task Force (“FATF”) is the “global money laundering and terrorist financing watchdog. The inter-governmental body sets international standards

⁵⁶ FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

that aim to prevent these illegal activities and the harm they cause to society.”⁵⁷ In June 2020, FATF published a report on Money Laundering and the Illegal Wildlife Trade (“The FATF Report”). The FATF Report was released with the intention to help support jurisdictions in combatting ML related to the illegal wildlife trade.⁵⁸

The results of FATF’s review found the following:

- Supply Chain and Related Financial Flows⁵⁹
 - Each country is impacted differently on the illegal wildlife trade supply chain. The impact also depends on the species being trafficked in each nation.
 - Organized criminal groups involved in wildlife crime usually target countries where law enforcement and criminal justice may be weaker, and the biodiversity is rich. These groups are typically involved in poaching, harvesting, or breeding in these countries.
 - These groups also transit the wildlife through various countries, with a goal of obscuring the end-destination. These countries typically see higher level of corruption. Bills of lading can be falsified or switched in intermediary countries to conceal the country of origin.
 - Proceeds of wildlife crime typically flow back to the country where organized crime leadership is based, and stay within the organized crime group to:
 - Cover the costs of continued criminal activity.
 - Provide leaders with profits.

⁵⁷ FATF (2023). Who We Are. Retrieved from <https://www.fatf-gafi.org/en/the-fatf/who-we-are.html>

⁵⁸ *Money Laundering and the Illegal Wildlife Trade* (2020). Page 5. Issued by FATF.

⁵⁹ *Ibid.* Pages 14-16.

- Funds are laundered throughout the supply chain process, including poaching and transit.
- Like other organized crimes (i.e., drug trafficking, human trafficking, etc.) organized crime groups related to wildlife crime are composed of multiple distinct sub-networks or actors, each providing criminal services and skills in their specialized areas.
- Organized crime groups typically delegate:
 - Sourcing to locals who speak the language and know the local environment.
 - Transportation preparation to local intermediaries to pack and prepare wildlife for transport.
 - Transportation to complicit officials (i.e., customs, immigration, or transportation officials) across the source and destination countries.
- See Appendix III for FATF's example of the illegal wildlife trade supply chain and payments.
- ML Methods⁶⁰
 - Under the placement and layering stages of ML, funds were found to occur from the following tenders:
 - Cash deposits (disguised as loans or other payments).
 - Electronic fund transfers and electronic payments, tied to credit cards or banks accounts.

⁶⁰ *Money Laundering and the Illegal Wildlife Trade* (2020). Pages 17-22. Issued by FATF.

- Licenced value services, taking in cash or cheques and completing a payment to a beneficiary.
 - Wire transfers through third-party banks.
- The use of front companies was often seen to conceal proceeds and launder funds through co-mingling of legal and illicit proceeds.
- The use of shell companies (i.e., companies without a physical location, employees, or actual economic activity) to facilitate transfer of funds between organized crime group members, buyers, and sellers, etc.
- Under the integration stage of ML, common methods of integration were found to be the purchase of luxury goods, such as real estate, vehicles, art, jewelry, etc.

Through FATF’s analysis, ML indicators were developed to assist entities in identifying and reporting transactions suspected of being related to the illegal wildlife trade. See Appendix III for ML indicators developed by FATF.

4.3 FinCEN Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data (U.S.)

The Financial Crimes Enforcement Network (“FinCEN”), is a bureau of the United States Department of the Treasury, with a mission “to safeguard the financial system from illicit use and combat money laundering and promote national security through the collection, analysis, and dissemination of financial intelligence and strategic use of financial authorities.”⁶¹ Similar to FINTRAC, which collects STR’s, FinCEN collects

⁶¹ FinCEN (n.d.). What We Do. Retrieved from <https://www.fincen.gov/what-we-do>

Suspicious Activity Reports (“SAR”) to provide intelligence to aid in collecting evidence for investigations of ML activities occurring in the U.S.

On December 20, 2021, FinCEN released a Financial Threat Analysis related to the Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data (“The FinCEN Threat Analysis”). The FinCEN Threat Analysis was released with the intention to provide the public with knowledge regarding threat pattern and trend information specific to wildlife trafficking.⁶²

The results of the FinCEN Threat Analysis were:

- Corruption and Transnational Criminal Organizations⁶³
 - 10% of illegal wildlife trade related SAR’s were tied to corruption.
 - Corruption includes bribes to government officials to ignore the illegal activity and sometimes help facilitate the transport of wildlife.
 - Organized crime groups were commonly found to be involved in illegal wildlife trafficking. These groups appeared to be international criminal organizations that engage in other illegal activities (i.e., drug and narcotic trafficking).
 - See Appendix IV for the trending and source of SAR’s related to the illegal wildlife trade.
- Financial Activity⁶⁴

⁶² *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data* (December 20, 2021). Page 1. Issued by FinCEN.

⁶³ *Ibid.* Pages 4-5.

⁶⁴ *Ibid.* Pages 7-9.

- Fund transfers between banks were the most common tender seen in illegal wildlife trade transactions.
- Other tenders seen were money service business transfers, cash, electronic fund transfers, and cheques.
- See Appendix IV for the countries seen sending and receiving payments related to the illegal wildlife trade.
- ML Related to the Illegal Wildlife Trade⁶⁵
 - Similar patterns were seen related to laundering funds received from the illegal wildlife trade, as are present for other major crimes (i.e., drug trafficking).
 - Laundered funds typically end up in the country where the leader of the organized crime group resides.
 - Laundering is seen throughout the supply chain stages of the illegal wildlife trade, including poaching and transportation.
 - Laundering may be completed by the organized crime groups themselves or may be outsourced to a third party or established ML organization.

Through FinCEN's analysis, ML indicators were developed to assist entities in identifying and reporting transactions suspected of being related to the illegal wildlife trade. See Appendix IV for ML indicators developed by FinCEN.

⁶⁵ *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data* (December 20, 2021). Page 10. Issued by FinCEN.

4.4 UNODC World Wildlife Crime Report: Trafficking in Protected Species (Global)

UNODC is a global office with a mission to “contribute to global peace and security, human rights and development by making the world safer from drugs, crime, corruption and terrorism.”⁶⁶ In 2020, UNODC published its second World Wildlife Crime Report (“The UNODC Report”), following the first report published in 2016. The UNODC Report was released with the intention to provide an updated overview of the world landscape and prevalent risks related to the illegal wildlife trade, given the changes that have occurred since 2016; including the COVID-19 pandemic.

The results of the UNODC Report were:

- Profit⁶⁷
 - Like many illegal markets, the illegal wildlife trade market is driven by profit.
- The Illegal Trade in Ivory and Rhino Horn⁶⁸
 - Traffickers often conceal ivory in legitimate cargo by land, air, and sea.
 - Illicit supply chain activities face the risk of detection and arrest by law enforcement. When this occurs, product is confiscated by authorities and lost to the perpetrators of the crime.
 - The supply chain model can be broken down into six trade levels, listed below:

- Poachers can be independent or hired by trafficking groups.

Independent poachers self-finance their poaching activities and sell the

⁶⁶ UNODC (n.d.). UNODC Strategy 2021-2025. Retrieved from <https://www.unodc.org/unodc/en/strategy/index.html>

⁶⁷ *World Wildlife Crime Report: Trafficking in Protected Species* (2020). Pages 107-110. Issued by UNODC.

⁶⁸ *Ibid.* Pages 107-10

product to the highest bidder. Poachers employed at organized crime groups are hired and financed by those higher up in the organized crime group.

- Runners or brokers are known as “low-level traffickers” and typically live close to poaching sites and are familiar with community leaders and individuals who purchase the poached products.
 - Intermediaries or dealers are typically based in large urban areas and operate on a national level. They are responsible for aggregating product and selling them to exporters or arranging the exports themselves, including the logistics behind the sale and transport.
 - Exporters/importers are typically members of organized crime groups. They are responsible for arranging international trafficking and preparing the trafficked product for transport. Transport occurs by air, sea, or land, so exporters/importers tend to reside near international airports or seaports.
 - Wholesale traders are responsible for receiving the trafficked product in the destination country. Once received, they process and sell the products to the end consumers (i.e., jewelry stores, retail stores, online).
 - Retail traders are the last link in the supply chain. Retailers are responsible for selling trafficked products in the destination country.
- Corruption is often accompanied by the illegal wildlife trade for local police officers and park rangers to turn a blind eye on illegal poaching and

internationally by customs officers and high-level officials in destination countries.

- See Appendix V for illustrations of illicit financial flows, income, and income management.

5.0 IFA's and the Illegal Wildlife Trade

5.1 Definition of the Role of an IFA

IFA's are required to follow the Standard Practices for Investigative and Forensic Accounting Engagements guidelines ("the Standards Practices"), issued in 2006 by the Canadian Institute of Chartered Accountants and reissued by the Chartered Professional Accountants of Canada. The Standard Practices outline "the minimum standard practices that should be met by all chartered accountants conducting IFA engagements."⁶⁹

The Standard Practices define IFA engagements as engagements that:

- “(a) require the application of professional accounting skills, investigative skills, and an investigative mindset; and
- (b) involve disputes or anticipated disputes, or where there are risks, concerns or allegations of fraud or other illegal or unethical conduct.”⁷⁰

Given the definition of an IFA engagement IFA's have a skillset that is robust and unique, allowing IFA's to be valuable assets in various types of engagements involving

⁶⁹ *Standard Practices for Investigative and Forensic Accounting Engagements* (2006). Page 1. Issued by the Canadian Institute of Chartered Accountants and reissued by the Chartered Professional Accountants of Canada.

⁷⁰ *Ibid.* Page 2.

allegations of illicit activities. In particular, the following skills are commonly utilized by IFA's during IFA engagements:

- Professional accounting skills: the ability to understand how businesses work, including: the documentation, recording, reporting, management, and control processes. The ability to analyze this information to interpret the business' environment and draw relevant and appropriate opinions and conclusions.⁷¹
- Investigative skills: the ability to understand the situation being investigated to identify and obtain relevant information. The ability to analyze information to establish whether motivation, intent, or bias is present, as well as whether information is fabricated or concealed. IFA's understand that any information obtained, and the work performed on this information, may be subject to disclosure and could be used as evidence. IFA's have the ability to develop, document, and present investigative findings to assist in decision-making.⁷²
- Investigative mindset: requires professional skepticism to identify, analyze and evaluate relevant information, including the consideration of whether information obtained is falsified, biased, or incomplete. IFA's have the ability to develop hypotheses, and perform work to prove or disprove these hypotheses, for the purpose of addressing the issues that are being investigated.⁷³
- Legal system knowledge: IFA's are trained with knowledge of laws and the legal system, allowing IFA's to obtain evidence and intelligence that is lawful, and

⁷¹ *Standard Practices for Investigative and Forensic Accounting Engagements* (2006). Page 2. Issued by the Canadian Institute of Chartered Accountants and reissued by the Chartered Professional Accountants of Canada.

⁷² *Ibid.* Pages 2-3.

⁷³ *Ibid.* Page 3.

complete work in a manner that meets legal requirements, should the IFA's work be entered as evidence in a court of law.

- Interview skills: IFA's are trained to interview individuals that may have information that will assist an investigation including management, bystanders or witnesses, victims, suspects, etc.
- Independence: IFA's have a duty to remain independent and provide objective, unbiased, non-partisan evidence and testimony to the trier of fact, within their area of expertise.
- Quantitative analysis: IFA's are trained in completing loss and damages quantifications, that are reasonable and calculated with independence.
- Communication: the ability to present findings in a clear, concise, and easily understandable manner, both verbally and written. IFA engagements can be complicated and complex in nature, making communication an essential skill for IFA's.

5.2 IFA Skills and Role in Combatting the Illegal Wildlife Trade

“Wildlife criminal cases very often start and end with the seizure, with limited investigation into the wider criminal network beyond the poacher or courier. Financial investigation and anti-money-laundering techniques are rarely used in the fight against wildlife crime”.⁷⁴

The above statement made by UNODC in their 2020 *World Wildlife Crime Report: Trafficking in Protected Species* Report is extremely insightful into the gaps of the current illegal wildlife trade investigation process. Focusing investigations solely on the poacher

⁷⁴ *World Wildlife Crime Report: Trafficking in Protected Species* (2020). Page 107. Issued by UNODC.

or courier does not get to the root of the problem; while this effectively stops the specific activity that was caught (for example, an instance of transporting illegal wildlife products), it does not shut down the leaders of the operation and/or organized crime group. With the leaders of the organized crime group still operational, the illegal wildlife trade problem persists as they can continue to fund future wildlife crimes, including replacing the poachers or couriers who were caught. See Appendix III for FATF's example of the illegal wildlife trade supply chain and payments.

“Similar to other major proceeds-generating crimes, transnational syndicates involved in wildlife crime are often composed of multiple distinct sub-networks or actors who each provide specialised criminal services and skills. Depending on size and geographic focus of the criminal group, the syndicate leadership may be more or less centralised. This is one of the reasons why following the financial flows is an important means of identifying links between individuals and the broader network”.⁷⁵

To solve the problem of illegal wildlife trade, the financial flows need to be followed to identify all sub-networks and actors involved in this crime. Without being able to follow the financial flows, the leaders of organized crime groups may never be known or held accountable for their crimes. If the leaders continue to operate, no matter how many poachers and couriers are caught, the illegal wildlife trade will continue, similar to Heracles beheading the Hydra; where one head is cut off, two more heads will grow back in its place. To slay the Hydra once and for all, Heracles required help from his nephew, Iolaus, to cauterize the wounds as Heracles cut off each head.⁷⁶ IFA's can help fill the

⁷⁵ *Money Laundering and the Illegal Wildlife Trade* (2020). Page 15. Issued by FATF.

⁷⁶ Encyclopedia Britannica (October 20, 2022). Hydra Greek Mythology. Retrieved from <https://www.britannica.com/topic/Hydra-Greek-mythology>

role of Iolaus, to cauterize the illegal wildlife trade wounds, by connecting wildlife crimes to the organized crime leaders through the flow of financial information. Providing tactile financial evidence will assist law enforcement in obtaining sufficient evidence to move forward in investigations and pursue criminal charges.

Alternatively, following the financial flows may provide an opportunity to cause disruption to organized crime groups, which may help deter future wildlife crime. While this may not lead to persecution of organized crime leaders, disruption can defer organized crime by making it more challenging to complete the crime and receive the associated rewards. As previously mentioned, wildlife crime is a high profit, low risk business. Causing disruptions to wildlife crime could change this statement, making wildlife crime less lucrative and attractive to organized crime groups.

Outlined below is the role and skillset an IFA could provide when assisting in the prevention and detection of the illegal wildlife trade:

Professional Accounting Skills

To launder funds related to wildlife crime, organized crime groups commonly utilize front companies and shell companies. “Importantly, criminals incorporate shell and front companies in the both source or destination countries for the illicit wildlife, but also take advantage of the weak regulatory environments in some financial and incorporation centres to set up complex company structures (e.g. multiple layers of ownership, and multijurisdictional). This suggests that trade data, and information on company business

activities and tax reporting, are important sources to identify anomalies and suspicious behaviour for wildlife crime.”⁷⁷

IFAs are trained accountants, with many holding CPA, or equivalent, designations. This could be a highly useful skillset in a wildlife crime investigation as a CPA has knowledge of accounting practices, including Generally Accepted Accounting Principles, and accounting standards, including International Financial Reporting Standards (for public companies), Accounting Standards for Private Enterprises, and Accounting Standards for Not-for-Profit Organizations. CPAs are trained in the preparation of financial statements and understand how general business practices are conducted. This allows CPAs to interpret financial statements, business activities, tax reporting, etc. in a way that could provide indicators of whether the business is engaged in the illegal wildlife trade. These insights may not be gleaned by a reader who does not have the equivalent financial and accounting acumen.

Investigative Skills

FATF states the following information, which demonstrates the benefits an IFA can provide in the prevention and detection of the illegal wildlife trade:

1. “To move, hide and launder their proceeds, wildlife traffickers exploit weaknesses in the financial and non-financial sectors, enabling further wildlife crimes and damaging financial integrity. Despite this, jurisdictions rarely investigate the financial trail left by this crime.”⁷⁸;

⁷⁷ *Money Laundering and the Illegal Wildlife Trade* (2020). Page 18. Issued by FATF.

⁷⁸ *Ibid.* Page 5.

2. “The majority of criminals involved in illegal wildlife trade did not outsource the financial or laundering elements to a third party.”⁷⁹; and
3. “Financial investigations are a key component of efforts by law enforcement to investigate and prosecute ML. They can also deprive criminals of their illicit proceeds and instrumentalities by helping to determine where those assets originate, how they are moved, and how they are used”.⁸⁰

One of the recommendations proposed by FATF to stop the trade in endangered species and the laundering of profits is “in all cases related to major proceeds-generating offences, these designated law enforcement authorities should develop a pro-active parallel financial investigation when pursuing money laundering, associated predicate offences and terrorist financing... Countries should ensure that competent authorities have responsibility for expeditiously identifying, tracing and initiating actions to freeze and seize property that is, or may become, subject to confiscation, or is suspected of being proceeds of crime. Countries should also make use, when necessary, of permanent or temporary multidisciplinary groups specialised in financial or asset investigations”.⁸¹

Including an IFA on the investigative team for illegal wildlife trade investigations would be an effective implementation of the FATF recommendation outlined above. IFAs have the skillset to conduct a parallel financial investigation, including the expeditious completion of identifying, tracing, and initiating actions to freeze and seize property suspected of being linked to proceeds of crime.

⁷⁹ *Money Laundering and the Illegal Wildlife Trade* (2020). Page 15. Issued by FATF.

⁸⁰ *Ibid.* Page 27.

⁸¹ FATF (2020). *Following the money of the illegal wildlife trade to stop the trade in endangered species and the laundering of profits*. Pages 4-5.

The investigative skills of an IFA can help perform financial investigations, by following the financial trail of ML activities to find implicit sub-networks and actors. This can be particularly helpful in complex investigations, where there are many sub-networks and actors at play. The bigger the financial net, the more complicated the financial trail becomes and in turn, the more helpful an IFA can be in weaving through the trail of connections and creating concrete links.

Creating links is especially important as wildlife crime relies heavily on corruption. During COVID-19, the true reliance on corruption in the illegal wildlife trade business was proven, as the pandemic greatly disrupted the usual supply chain channels. For example, challenges with moving wildlife product via airplanes arose because:⁸²

- Flights were cancelled or not scheduled as countries restricted access of people and products into their borders.
- Corrupted officials (i.e., custom agents, etc.) were not working because of pandemic lockdowns.
- Flights were rerouted through alternate countries, where traffickers did not have a corrupt contact to clear the smuggled product without question.

Corruption can be difficult to prove; however, effective financial analysis may hold the key to linking suspected corrupted officials to the crime. Linking suspicious funds or money transfers to bank accounts of officials suspected of accepting bribes, or other forms of corruption would provide concrete financial evidence, as the trail of money does

⁸² Wildlife Justice Committee (2020). Rapid Assessment of the Impact Of COVID-19 on Wildlife Trafficking. Retrieved from <https://wildlifejustice.org/publications/rapid-assessmen-of-the-impact-of-covid-19-on-wildlife-trafficking/>

not lie. Alternatively, assuming IFA's have access to relevant and reliable information, an IFA could perform a wealth analysis on individuals suspected of corruption related to wildlife crimes. If payroll or tax information is available, an IFA could compare salary information to the expenses, purchases, and assets of the individual in question, to understand whether the individual is living beyond their means. Living a lavish lifestyle is a good indicator that ML or other illicit activity is occurring.

Another area that an IFA's investigative skills could assist in, related to the prevention and detection of the illegal wildlife trade, is causing disruptions. A perfect example of disruption comes from the well-known story of Al Capone's arrest; Al Capone was sent to prison for 11 years for tax evasion, despite being known as one of the most notorious criminals of the 1920's and 1930's.⁸³ While Al Capone was not arrested for any of the notorious crimes he was suspected of committing, his work and network were disrupted by his arrest. No longer could he carry out his 'kingpin' status behind prison bars.

Much like Al Capone's story, which caused disruption based on his financials, IFA's can assist in the disruption of wildlife crime funds. Criminals perpetrating wildlife crime also rely on corruption, bribery, complex fraud, and tax evasion to help carry out their wildlife crimes.⁸⁴ IFA's can help identify financial information and connections that may be able to assist in providing information to cause disruption. This could occur via identifying bank accounts created for the purpose of ML and closing those accounts, working with the Canada Revenue Agency (or other nations' tax officials) to identify individuals who are performing tax evasion, or exposing officials that are accepting

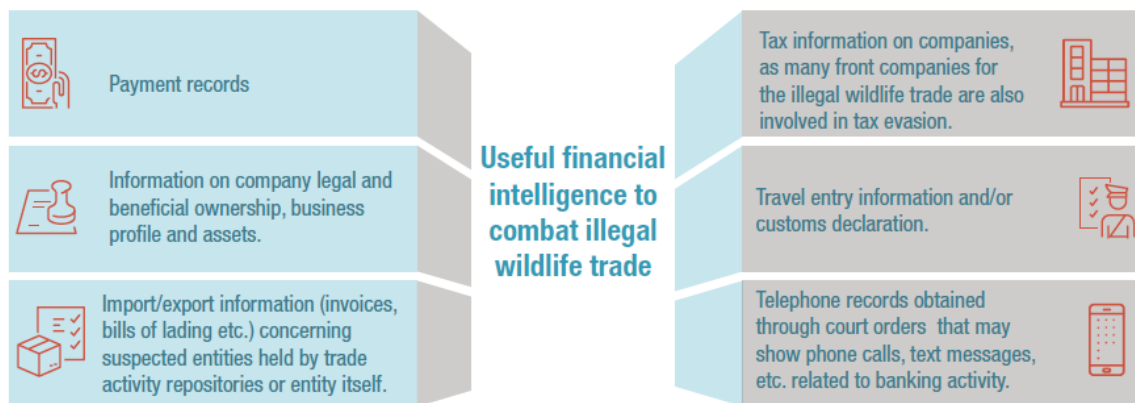
⁸³ History (October 14, 2021). Al Capone goes to prison. Retrieved from <https://www.history.com/this-day-in-history/capone-goes-to-prison>

⁸⁴ *Money Laundering and the Illegal Wildlife Trade* (2020). Pages 5-7. Issued by FATF.

bribes to remove them from their position of power. All these disruptions would cause challenges for organized crime groups perpetrating wildlife crime, detracting from the value and appeal of completing future wildlife crimes.

Investigative Mindset

FATF provides the following financial intelligence information that is useful in combatting the illegal wildlife trade:



Source: FATF (2020). *Following the money of the illegal wildlife trade to stop the trade in endangered species and the laundering of profits*. Page 3.

IFA's are trained to identify documentation that is relevant to an investigation, and always consider whether information they have received is biased, false, unreliable and/or incomplete.⁸⁵ IFA's can assist in identifying whether information received has been changed or falsified, rendering it unreliable. This is a very important skillset, especially if the investigation proceeds to a court of law. Additionally, IFA's are trained to look for inculpatory and exculpatory evidence, avoiding the potential pitfalls of confirmation bias.

⁸⁵ *Standard Practices for Investigative and Forensic Accounting Engagements* (2006). Page 9. Issued by the Canadian Institute of Chartered Accountants and reissued by the Chartered Professional Accountants of Canada.

Legal System Knowledge

All evidence collected and relied upon by an IFA is appropriately documented and controlled to ensure the chain of custody is maintained. IFA's are trained to prepare documentation in accordance with applicable evidence laws, to ensure information is suitable for use in a court of law, if required.

Interview Skills

IFA's are trained to interview individuals as part of the investigation process, including obtaining relevant information and evidence. This can be particularly helpful in an investigation where a law enforcement interview is not required, but an interview would be helpful to assist in obtaining or understanding evidence. Additionally, being interviewed by an IFA may be less intimidating, compared to being interviewed by law enforcement; individuals may feel more comfortable and, as a result, be more open and honest answering an IFA's questions.

Independence

An IFA's ultimate duty is to the trier of fact, to provide independent, objective, unbiased, and non-partisan evidence and testimony, within the IFA's area of expertise. An IFA's area of expertise includes the financial flows of the case which can be complex, depending on the size of the investigation and network of criminals.

Quantitative Analysis

IFA's are trained to perform quantitative analyses. In complex ML cases, calculating totals (for example, total money transferred from or to an individual, total value of assets

owned by an actor, etc.) could be complicated and messy. An IFA is trained to work through the weeds to calculate reasonable, independent figures.

Communication

In complex cases, outlining the flow of financial information in an easily understandable format can be quite difficult, especially if there are many sub-networks and actors involved. IFA's are trained to communicate in a clear, concise manner, and are experienced in communicating to individuals who may not have the same financial acumen as an IFA. This skillset is especially important when complex financial information needs to be outlined in layman's terms, to the trier of fact, who is not experienced in complex financial matters.

5.3 Tools and Technology IFA's can Leverage in Combatting the Illegal Wildlife Trade

Much like everything else in society, the illegal wildlife trade has expanded greatly with the development and widespread use of the internet. "Advances in technology and connectivity across the world, combined with rising buying power and demand for illegal wildlife products, have increased the ease of exchange from poacher to consumer. As a result, an unregulated online market allows criminals to sell illegally obtained wildlife products across the globe. Purchasing elephant ivory, tiger cubs, and pangolin scales is as easy as click, pay, ship."⁸⁶

With the illegal wildlife trade depending heavily on technological advancements, including the internet, it is necessary for IFA's and other investigators of these crimes to

⁸⁶ World Wildlife Fund (n.d.). Coalition to End Wildlife Trafficking Online <https://www.worldwildlife.org/pages/coalition-to-end-wildlife-trafficking-online>

maintain parallel technological prowess. There are many tools and technologies available that can assist an IFA during investigations. The tools and technologies outlined below can aid in an IFA's ability to analyze information effectively and expeditiously, to provide valuable information in a timely manner.

Data Mining and Data Analytics

Data mining is the “process of uncovering patterns and other valuable information from large data sets”.⁸⁷ This is an essential skillset for an IFA, as large datasets are common in today's world, but can be rendered useless without the proper analysis. Data analysis can transform raw data into useful knowledge, allowing informed decision-making to take place.⁸⁸ An IFA has the skillset to work with large data sets to uncover patterns and other relevant information. In the context of the illegal wildlife trade, this could include review of large transaction sets to identify transactions related to the illegal wildlife trade, including links to other actors involved in the perpetration of this crime. Effective data analysis can aid in the creation of data visualizations, which can be especially helpful to explain complex data in an easily understandable format.

Link Analysis and Link Charts

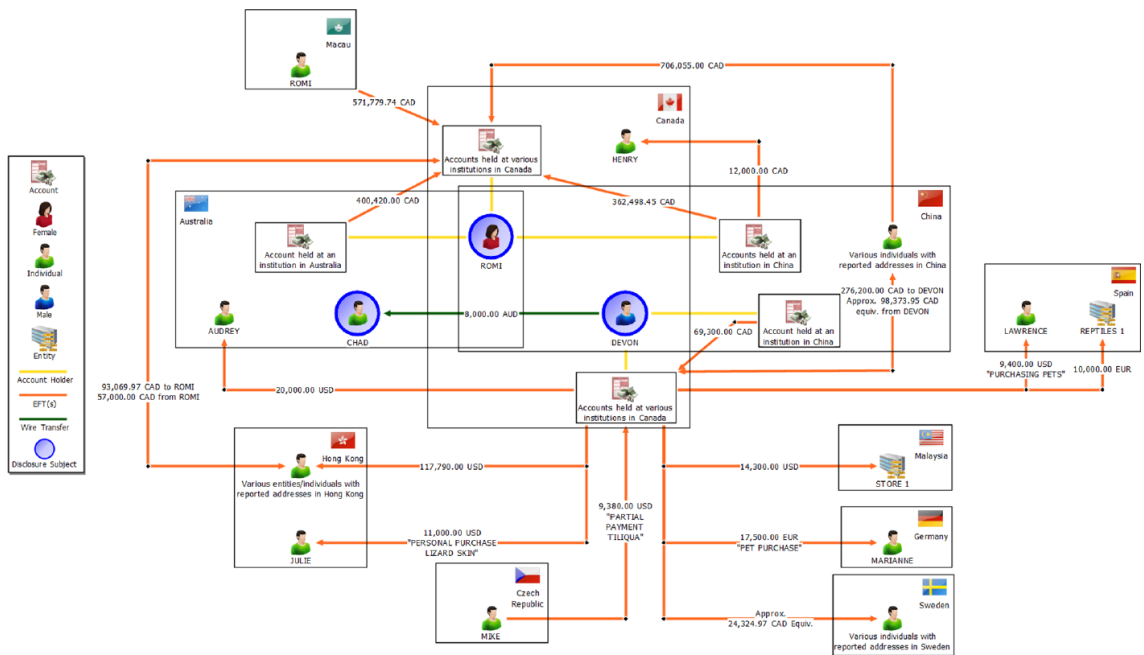
As mentioned previously, the illegal wildlife trade is typically conducted by organized crime groups composed of multiple sub-networks and actors.⁸⁹ This demonstrates the importance of following the financial flows to identify links across the organized crime group's network(s). Links analysis can result in a huge spiderweb of

⁸⁷ IBM (n.d.). What is data mining? Retrieved from <https://www.ibm.com/topics/data-mining>

⁸⁸ Ibid.

⁸⁹ *Money Laundering and the Illegal Wildlife Trade* (2020). Pages 14-16. Issued by FATEF.

information that needs to be conveyed in an easily understandable manner. Link charts are an effective way to diagram links in a visual representation that is complete and easy to follow and interpret. The image below demonstrates the impact a link chart can have in visualizing an international financial flow, between multiple individuals suspected of being involved in the illegal wildlife trade.



Source: FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

Asset Tracing

The illegal wildlife trade is an international, cross-border crime which involves the movement of money and laundering of funds internationally, as well. This adds an additional layer of difficulty in tracing and identifying misappropriated assets.

“Globalization has facilitated the transfer and movement of assets to all parts of the world with each international jurisdiction enforcing their local laws and regulations.

Accordingly, in today's environment sophisticated 'criminals' are deploying (and ever more so) complex financial vehicles to conceal the location and source of misappropriated assets. Resultantly, it is difficult to identify assets located across multiple jurisdictions and moreover it is problematic to obtain a favorable decree and enforce the recovery claim in these international jurisdictions."⁹⁰

Asset tracing can be a challenge in: proving the ultimate ownership of assets, proving that assets were purchased with proceeds of crimes, of quickly and discreetly seizing assets while complying with local laws and regulations, etc.⁹¹ IFA's are knowledgeable in the different avenues and associated assets criminals can use to launder funds, including investments, real estate, luxury items, etc. This knowledge, coupled with an IFA's training in asset tracing, allows IFA's to: identify assets related to the illegal wildlife trade, verify the ownership of the asset, map assets to owners, and classify types of assets involved in this crime.⁹² Asset tracing is essential to disrupting the illegal wildlife trade, particularly/especially to find out where misappropriated funds have gone and how to get those funds back. This skillset will provide innumerable benefits to combatting the illegal wildlife trade and hitting the criminals where it hurts: in their profits and misappropriated assets.

Text Analytics

Per FINTRAC's Operational Alert, the following ML indicators were present:⁹³

⁹⁰ Deloitte (2015). *Asset Tracing and Recovery: Tracing and chasing the money trail.*

⁹¹ Ibid.

⁹² Ibid.

⁹³ FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

- Import into Canada: Transaction details (email address, remittance information) make reference to traditional medicine or the traditional medicine market.
- Export into Canada: Individual or entity received multiple email money transfers or wire transfers referencing species or animal parts of concern for illegal wildlife trade from Canada (e.g., bear, geese, eels).

These ML indicators can provide strong evidence of an individuals' involvement in the illegal wildlife trade. However, the data for these indicators can prove challenging to work with as much of this data is stored in an unstructured format. Unstructured data does not have a predefined format, which makes traditional analysis tools (such as spreadsheets) ineffective for analyzing this type of data.⁹⁴ Due to this, specialized tools are required to analyze unstructured data to glean useful insights.⁹⁵ IFA's can utilize these tools to analyze unstructured data in an efficient manner.

For example, if IFA's have access to banking records that contain details and descriptions for many electronic money transfers incoming and outgoing from an account, analyzing the description fields would be beneficial to an investigation to identify the movement of funds tied to wildlife crimes. Utilizing text analytics tools to perform key word searches on the unstructured data contained in the description field will quickly identify transactions that should be reviewed in more detail.

⁹⁴ IBM (n.d.). Structured vs. Unstructured Data: What's the Difference?
<https://www.ibm.com/cloud/blog/structured-vs-unstructured-data>

⁹⁵ Ibid.

Education on Language/Slang Used in Wildlife Crime

Often in the description field for transactions or electronic money transfers, criminals will reference the Latin, local names, or local slang terms for animals or wildlife parts being exchanged. Performing effective text analytics will, in part, rely on the knowledge of these terms. Performing research on local animal names (for example, the Chinese name and characters, or the Latin name) could significantly aid in locating implicated transactions.

Open-Source Intelligence and Navigating Online Selling Platforms

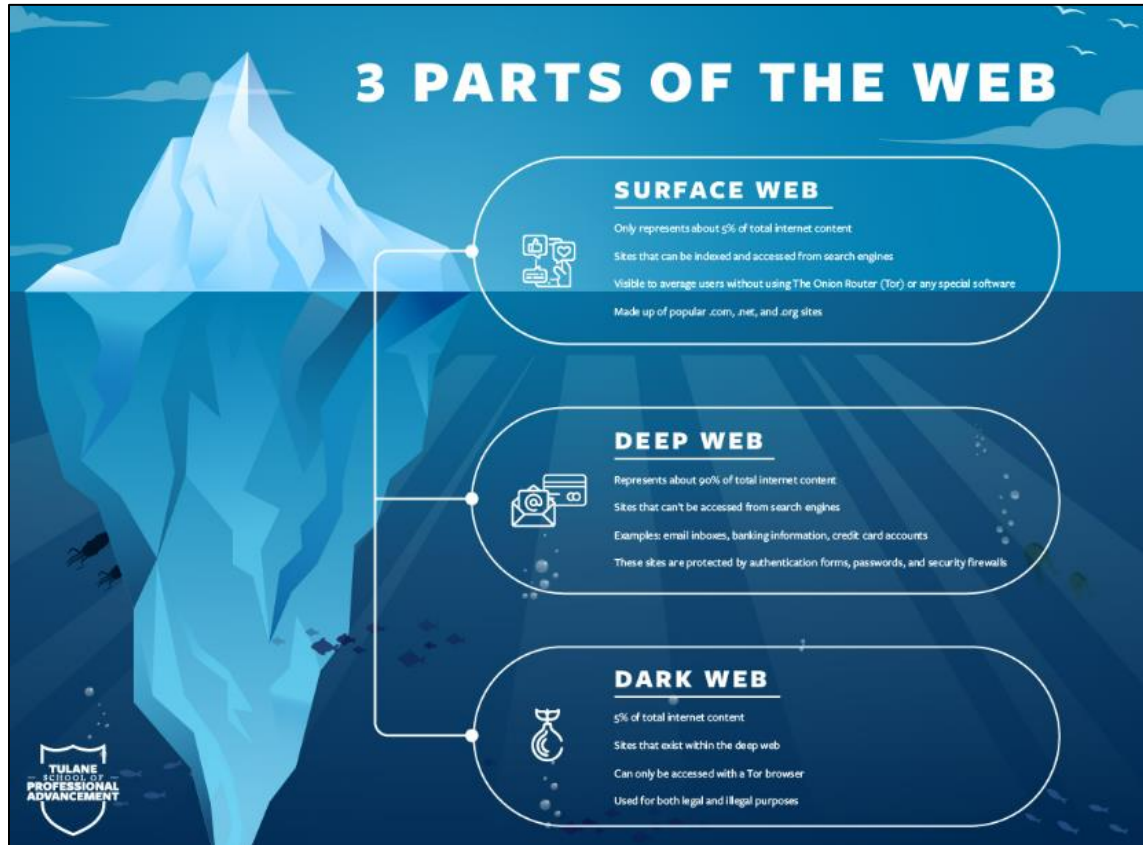
Per FINTRAC’s Operational Alert, one of the general wildlife trade ML indicators is an “individual or an entity has open source information linking them to the possession and/or advertising the sale of species of concern for illegal wildlife trade, particularly endangered species (e.g., geckos, turtles, and tortoises)”.⁹⁶

This ML indicator outlines the importance of performing OSINT searches related to individuals suspected of being complicit in wildlife crime. It is astonishing what information can be found through publicly available information. Social media profiles, news articles, reselling platforms (such as Facebook Marketplace, eBay, etc.), company documents (including ownership and operational staff information), financial statements, etc. are all great sources of information that can be accessed legally through open sources. IFA’s can perform OSINT searches to help prove or disprove a suspect’s association to wildlife crime.

⁹⁶ FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

Dark Web

The internet is composed of three parts, as outlined in the illustration below:



Source: Tulane University (n.d.) Everything You Should Know About the Dark Web. Retrieved from <https://sopa.tulane.edu/blog/everything-you-should-know-about-dark-web>

The dark web allows users to browse the internet completely anonymously, using the onion routing (“Tor”) browsers.⁹⁷ “When users access a site through Tor, their information is routed through thousands of relay points that cover the user's tracks and make their browsing virtually impossible to trace”.⁹⁸ While not inherently illegal, the dark web is often used for nefarious purposes, including the perpetration of illegal

⁹⁷ Tulane University (n.d.) Everything You Should Know About the Dark Web. Retrieved from <https://sopa.tulane.edu/blog/everything-you-should-know-about-dark-web>

⁹⁸ Ibid.

crimes. Included on the dark web may be the buying and selling of animals or animal materials obtained from the illegal wildlife trade. Knowing how to safely use the dark web could provide a valuable source of information to an investigation of wildlife crimes. IFA's can obtain training related to the safe use of the dark web, to provide additional valuable resources to an illegal wildlife trade investigation.

6.0 Proposed Changes to IFA Education

6.1 Overview of the Master of Forensic Accounting Program

The Master of Forensic Accounting (“MFAcc”) Program at the University of Toronto Mississauga “is designed to provide a graduate professional accountant, or equivalent, with the skills, knowledge, insights and professional characteristics necessary to successfully respond effectively to:

- the challenges of investigating fraud, other aspects of white-collar crime, money laundering, and other financial disputes, and
- the provision of reports, advice and evidence to clients, lawyers and courts for the resolution of situations relating to possible or pending civil or criminal legal proceedings”.⁹⁹

The MFAcc Program is a unique educational offering, as the demand for IFA's is steadily increasing despite a scarcity of university courses and programs designed to educate IFA's.¹⁰⁰ The MFAcc Program helps fill this educational void, to train future

⁹⁹ University of Toronto Mississauga (n.d.). The Master of Forensic Accounting Program. Retrieved from <https://mfacc.utoronto.ca/mfacc/program>

¹⁰⁰ Ibid.

IFA’s in the knowledge and skills required to investigate white collar crimes and disputes that require resolution.¹⁰¹

The MFAcc Program consists of ten graduate credits spanning over a two-year period, with courses completed one at a time, in the following order:¹⁰²

Year	Course Code	Course Title
Year 1	IFA 1900H	Forensic Accounting & Investigation, Fraud & Cybercrime
	IFA 1905H	Fraud Prevention, Risk Assessment & Investigation, Data Analytics & Security
	IFA 1906H	Money Laundering, Asset Tracing & Recovery & International Aspects of Fraud
	IFA 1901H	Forensic Accounting Professional & Practice Issues
	IFA 1907H	Legal & Legal Process Issues for Forensic Accounting
Year 2	IFA 2900H	Loss Quantification
	IFA 2905H	Advanced Forensic Investigation & Psychological Aspects of White Collar Crime
	IFA 2906H	Business Valuation, Bankruptcy & Insolvency, & Advanced Loss Quantification
	IFA 2903H	Research Project on Emerging Issues/Advanced Topics
	IFA 2904H	Integrative Capstone

From the course list outlined above, content specific to ML is taught in IFA 1906H. Course IFA 1906H Money Laundering, Asset Tracing & Recovery, & International Aspects of Fraud is designed to “cover the recovery of proceeds of crime, the recovery of assets which have ‘disappeared’, and the international aspects of fraud. Specific topics will include:

- related regulatory and legal matters including use of Mareva injunctions;
- Anton Piller and the Norwich Pharmacal orders;
- data gathering, tracing and recovery methods;

¹⁰¹ University of Toronto Mississauga (n.d.). The Master of Forensic Accounting Program. Retrieved from <https://mfacc.utoronto.ca/mfacc/program>

¹⁰² Ibid.

- bribery and corruption of foreign officials...; and
- avenues of recovery under criminal and civil processes including insurance claims, and the use of the *Bankruptcy & Insolvency Act*.¹⁰³

IFAs operate in a field that requires a wide range of knowledge. In response, the MFAcc program covers a variety of topics. While the MFAcc program provides sufficient knowledge and teachings surrounding ML, which allows an IFA to understand the basic principles, motivations, strategies, techniques, etc. related to ML, continuous improvement is always strived for.

6.2 Background for Proposed Changes to IFA Education

To ground the proposed changes, outlined in the next section of this paper, I feel it is important to describe my background and motivation for selecting the topic of the illegal wildlife trade to write about for this course. Throughout my professional career and continuing education, I have become extremely interested in how the banking sector can help protect and identify, through prevention and detection, areas where vulnerable people and/or animals are being exploited. When I first became a CPA, I never thought this was an area I could expand into. However, the first audit I worked on was AML/ATF at a small Canadian Bank. During this audit, my eyes were opened to how patterns of financial transactions could tell stories. For example, I never knew you could use transaction history to assess whether an account is being used to assist in the communication or solicitation of sexual services, which is illegal in Canada. Financial indicators of this crime include, but are not limited to, frequent transactions at hotels,

¹⁰³ University of Toronto Mississauga (n.d.). The Master of Forensic Accounting Program. Retrieved from <https://mfacc.utoronto.ca/mfacc/program>

including booking multiple hotel rooms for the same night, purchases of advertisements on websites associated with pornographic or sexual services, frequent hair and nail salon appointments, late night fast food purchases, ride sharing (i.e., Uber or Lyft) and taxi transactions, large cash withdrawals, as well as an absence of usual lifestyle purchases such as veterinary visits, movie theatres, vacations, and household utilities.

Each crime has unique typologies and patterns of financial transactions that indicate the account holder is participating in illicit activities. The financial indicators related to the illegal wildlife trade are outlined in Appendices II to V. Upon learning patterns in financial transaction histories could tell these stories, I realized I needed more professional purpose, and decided to pursue a career in the prevention, detection, and investigations of fraud and other illicit activities. I have always had a huge passion for animals, and the topic of the illegal wildlife trade aligns with my interest in helping to protect and rescue vulnerable people and/or animals.

6.3 Proposed Changes to IFA Education

Given the background provided in the section above, I feel the education provided in the MFACC program focused mostly on preparing an IFA to become an expert witness, with a career in loss or damages quantifications. While this is a very important component of IFA education and is beneficial to learn as these calculations can get quite complicated, I am not actively pursuing a career in loss or damages quantification. To clarify, the education and skillset I have received from the MFACC program is still relevant and valuable to my current and aspirational career path; however, I would have enjoyed the addition of a course that focused on other career paths of an IFA, including proceeds of crime investigations.

As such, I propose the following changes to IFA education:

- Create a new course in the MFAcc program designed to cover ML in depth, including financial crimes and associated career paths for IFA's.
- Alternatively, expand the scope of the IFA 1906H Money Laundering, Asset Tracing & Recovery, & International Aspects of Fraud course, to include the additional content outlined below, that is not already covered in the current course outlined for IFA 1906H:

- Week 1: Introduction of ML including the definition of ML, how AML differs from fraud, the stages of ML, common ML techniques, how are assets concealed, AML regulators and regulations (Canadian and International), the impacts of ML on financial institutions and society, etc.
- Week 2: The relationship between ML and other crimes, with a focus corruption and major crimes including human trafficking, child sexual exploitation, the illegal wildlife trade, etc. Review of financial indicators tied to each crime.
- Week 3: Guest speaker from FINTRAC to discuss the Canadian regulatory environment, FINTRAC's role, responsibilities and authority, the creation of STR's, the creation and insights of operational alerts, etc.
- Week 4: Guest speaker from the financial industry; for example, a Canadian Bank, to discuss their responsibilities for compliance with AML regulations, their processes and policies in place relating to AML, etc.
- Week 5: Guest speaker from law enforcement, in the financial crimes and/or proceeds of crime investigation department, to discuss how proceeds of crime

investigations are conducted and evidence that is collected and utilized in these investigations.

- Week 6: Combining the knowledge of the guest speakers and providing a holistic review of how the role and skillset of an IFA can contribute to successful proceeds of crimes investigations.
- Week 7: Guest speaker from the Forensic Accounting Management Group, a section of the Canadian government's Public Services and Procurement Canada Departmental Oversight Branch. This will provide students with accounts of real-life experiences of an IFA working as part of a "team that supports federal, provincial and municipal law enforcement agencies in fraud, proceeds of crime, money laundering, terrorist financing and many other types of investigations."¹⁰⁴
- Week 8: In depth case study of a complex ML case, highlighting the value a forensic accountant can provide in obtaining evidence. This class will build on previous classes and will tie to the relevant IFA skills outlined in week 6. This class will also focus on how to simplify and effectively communicate complex financial networks and topics to a trier of fact.

Note: this proposal is a basic outline created for the purposes of this paper. Mention of proposed guest speakers would need to be confirmed if this course is created, and content is subject to change, and requires approval by relevant university officials.

¹⁰⁴ Government of Canada (December 21, 2020). Career opportunities in forensic accounting at Public Services and Procurement Canada. Retrieved from <https://www.tpsgc-pwgsc.gc.ca/dgsc-dobc/ocjspac-cofapspc-eng.html#s1>

7.0 Conclusion

The illegal wildlife trade is a prolific crime that has many negative impacts on the earth's environment and biodiversity, human health and animal welfare, and economic stability of underprivileged nations. It also aids in the perpetration of other major crimes. If the illegal wildlife trade continues operating to the same extent that it does today, irreparable damage may occur, including extinction of species, destruction of oceans and other natural habitats, transmission of zoonotic diseases which could lead to new human health concerns and an increased risk of future pandemics, etc. Stopping this crime is essential to protecting the planet's health and contributing to greater unity of all the species on this planet. However, this is easier said than done.

Combatting the illegal wildlife trade is a multi-national, multi-jurisdictional initiative that benefits from the combined skillsets of law enforcement, regulatory authorities, environmental crime investigators, anti-corruption authorities, customs agents, and IFA's. Without following the financial trail and identifying relevant links among individuals, companies, etc. the problem of the illegal wildlife trade will persist. IFA's can be an essential tool aiding in the completion of financial investigations of illegal wildlife trade cases. IFA's are trained in accounting, investigation techniques, maintaining an investigative mindset, creating evidence that can withstand the court of law, and communication (oral and written) to explain complex matters in an easily understandable format. All these skills will aid in illegal wildlife trade investigations, especially where large networks and associated financial flows are present, which can quickly become complicated.

Utilizing IFA's for investigations of illegal wildlife trade offences can help decrease the appeal and ease in which these crimes are currently committed. Financial evidence is often irrefutable, as the money trail is concrete and does not lie. Providing strong financial evidence can increase the conviction rate for illegal wildlife trade crimes, which helps to detract from the attractiveness of committing the crime. Additionally, IFA's can help cause disruptions to illegal wildlife trade networks, which would make future wildlife crimes more challenging to commit.

More convictions and more disruptions will, in turn, diminish funding of organized crime groups, which will decrease the amount of money invested into future crimes. Additionally, many organized crime groups that engage in illegal wildlife trade use profits from this crime to help fund other illicit activities they are involved in, such as trafficking of narcotics, illegal arms, and human trafficking. As such, preventing future wildlife crimes could decrease the ability of criminals to perpetrate other types of crime, making the world a better and safer place for all its inhabitants.

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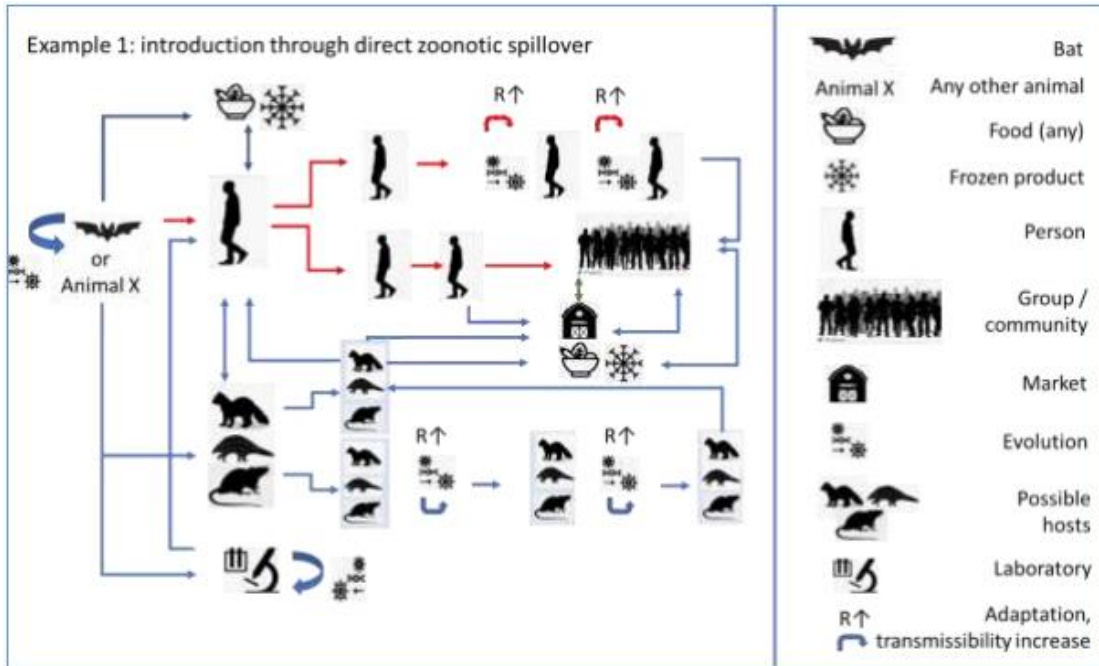
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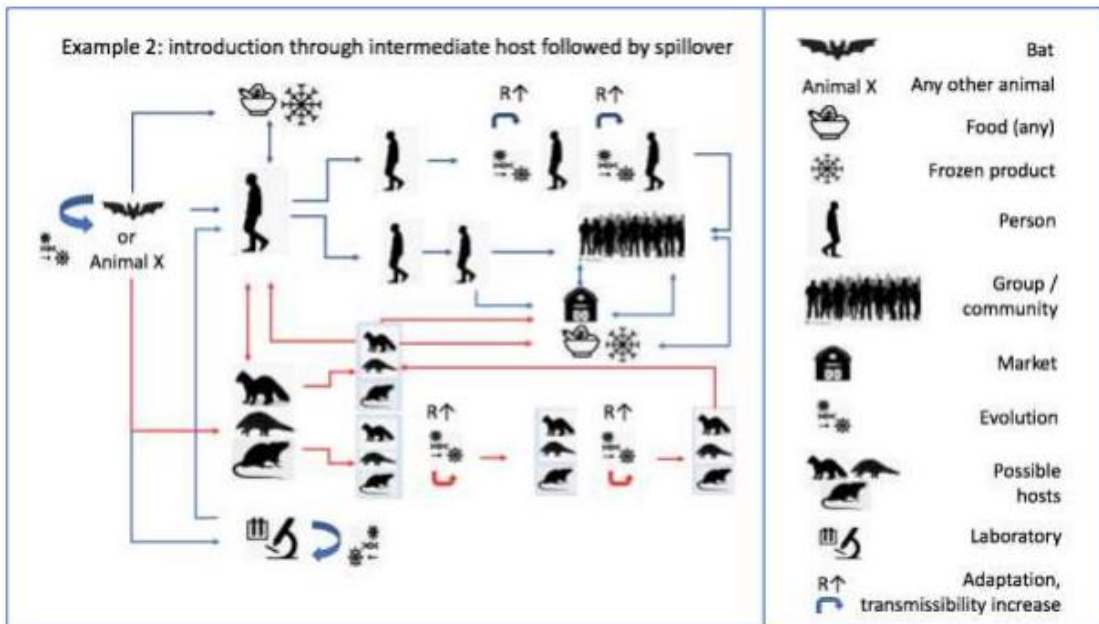
9.0 Appendix I – World Health Organization Transmission Pathways

9.1 Direct Zoonotic Transmission (Also Termed: Spillover)



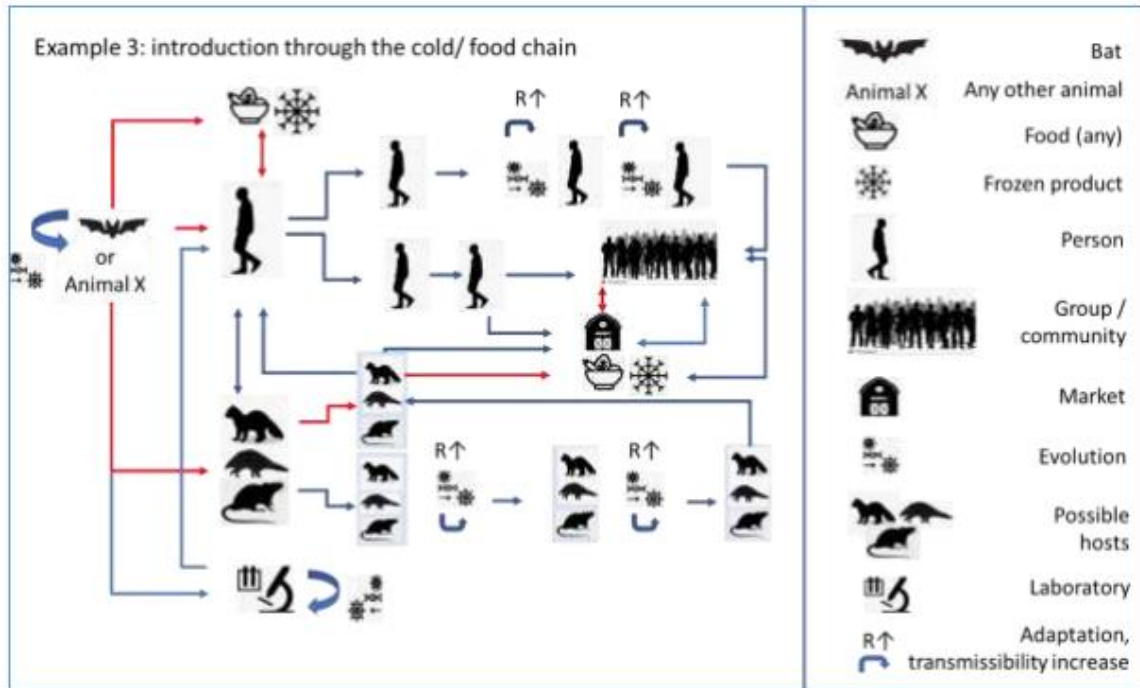
Source: WHO-convened Global Study of Origins of SARS-CoV-2: China Part (2021).
Page 113. Issued by World Health Organization and China.

9.2 Introduction Through an Intermediate Host Followed by Zoonotic Transmission



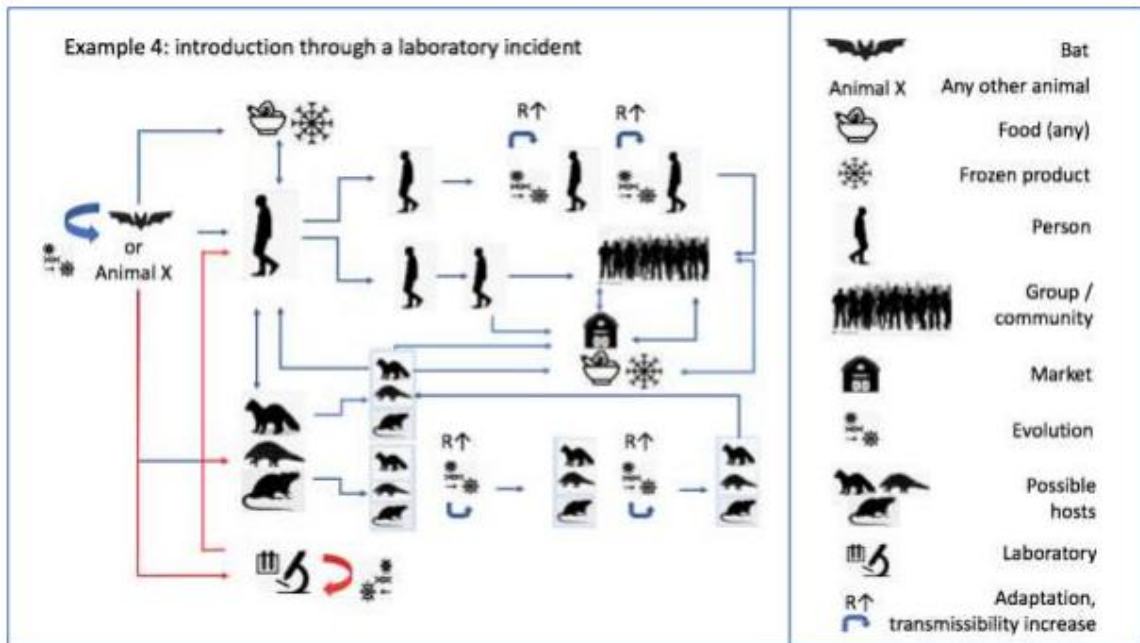
Source: WHO-convened Global Study of Origins of SARS-CoV-2: China Part (2021).
Page 115. Issued by World Health Organization and China.

9.3 Introduction Through the Cold/ Food Chain



Source: WHO-convened Global Study of Origins of SARS-CoV-2: China Part (2021).
Page 117. Issued by World Health Organization and China.

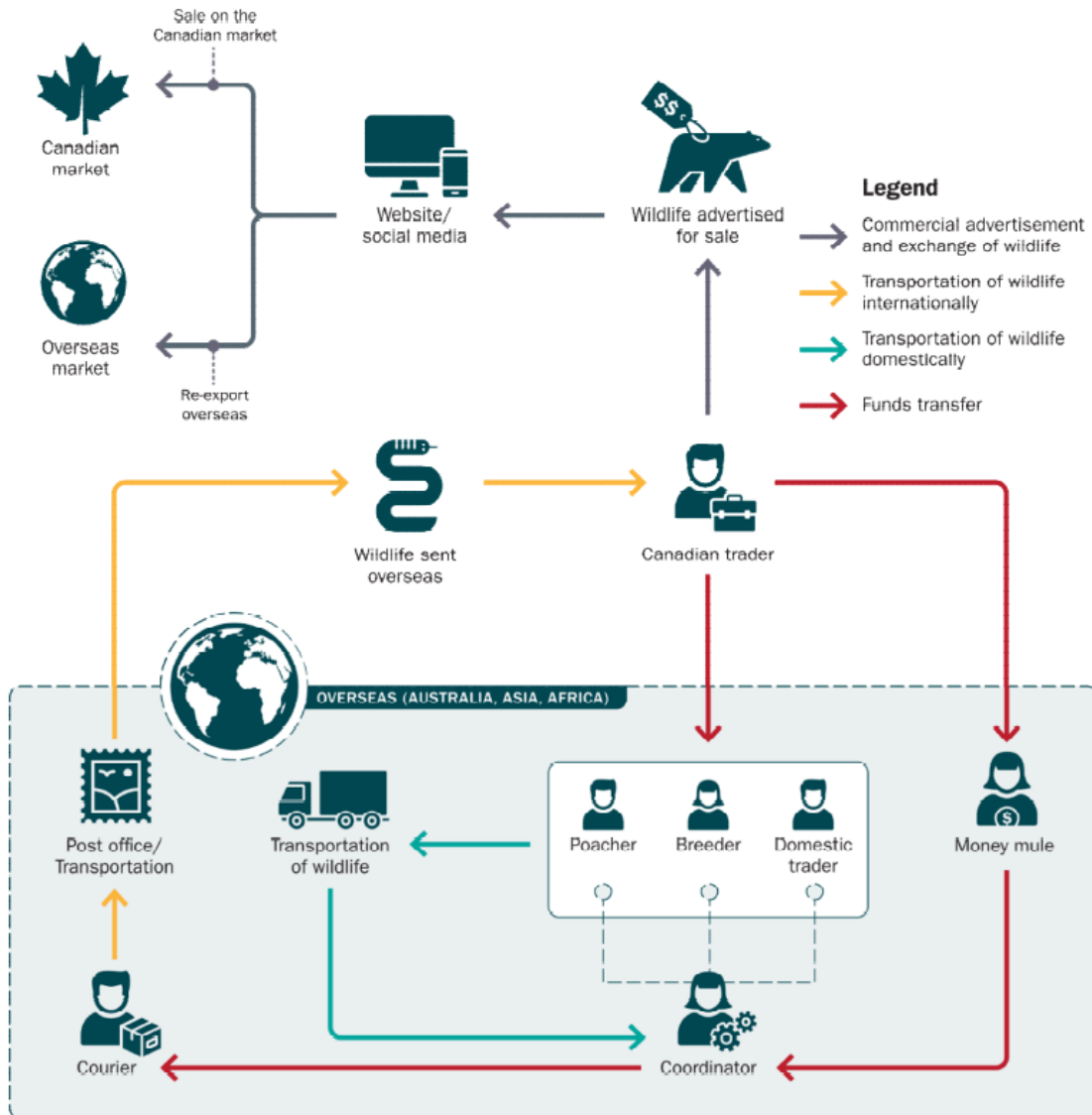
9.4 Introduction Through a Laboratory Incident.



Source: WHO-convened Global Study of Origins of SARS-CoV-2: China Part (2021).
Page 119. Issued by World Health Organization and China.

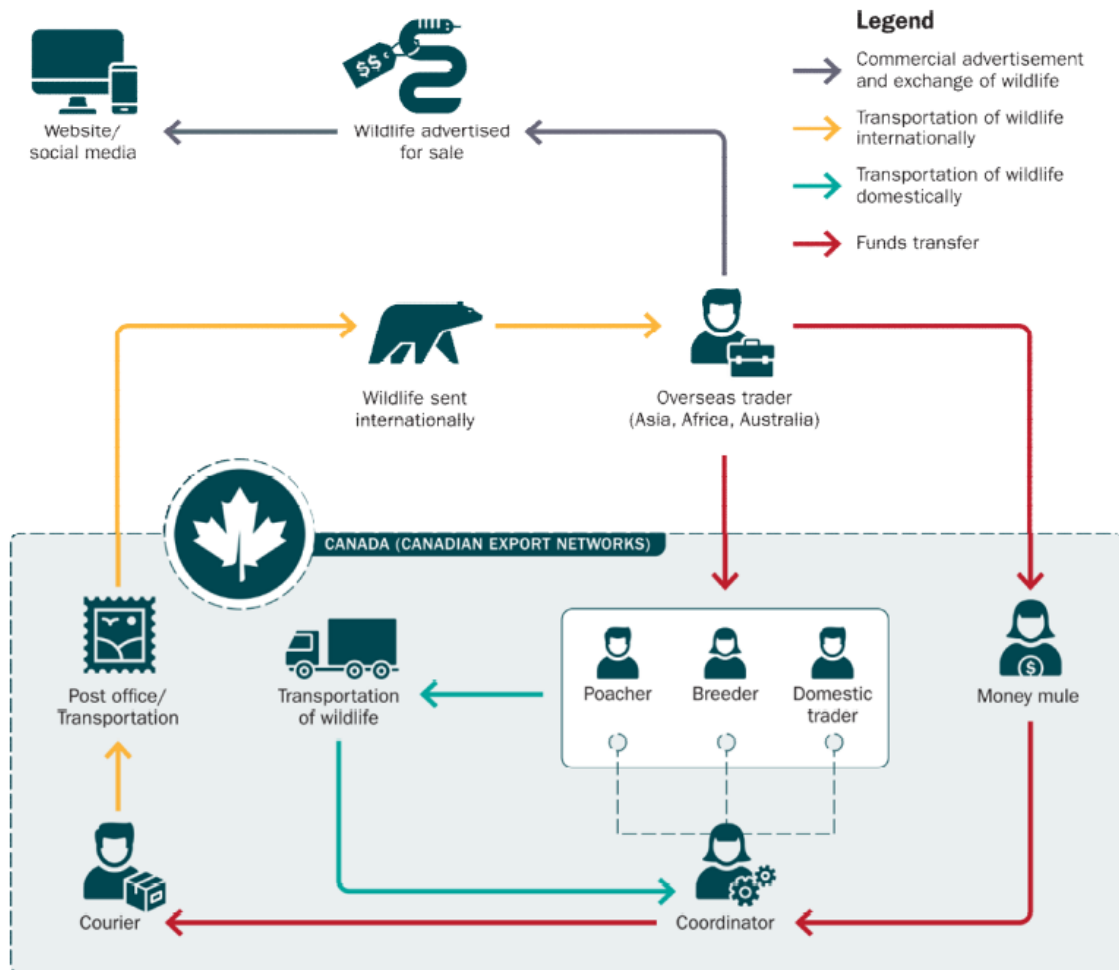
10.0 Appendix II – FINTRAC Operational Alert

10.1 FINTRAC's Depiction of an Illegal Wildlife Import Network (into Canada)



Source: FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

10.2 FINTRAC's Depiction of an Illegal Wildlife Export Network (from Canada)



Source: FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

10.3 FINTRAC's Illegal Wildlife Trade ML Indicators

General wildlife trade

- Transaction details (email address, remittance information) make reference to species or animal parts of concern for illegal wildlife trade, particularly endangered species (e.g., ivory, tusk, scales, shark fin, tortoise, gecko).

- Media and/or law enforcement information links client or transacting parties to the illegal wildlife trade.
- Transaction details (contact name, email address, remittance information) specifies the role of the beneficiary of funds (e.g., poacher, coordinator, supplier, breeder, trader, courier).
- An individual is the owner, operator, employee or associated with an industry that could be used to facilitate illegal wildlife trade (e.g., import/export of goods, fisheries wholesaler, pet store, freight company, animal control).
- Individual or an entity has open-source information linking them to the possession and/or advertising the sale of species of concern for illegal wildlife trade, particularly endangered species (e.g., geckos, turtles, and tortoises).
- Individual received numerous transfers with wildlife-trade references from several parties, followed by outgoing transfers to an individual(s) who has also received similar email money transfers from other parties. The individual had very few or no other transactions in their account. (The individual may be a financial intermediary/nominee in a wildlife trade network and may be a collector of illegal wildlife-related funds).
- Individual or entity provides misleading or falsified documentation concerning wildlife trade (e.g., incorrect permits).

Import into Canada

- Frequent transfers to individuals and/or entities located in jurisdictions of concern for wildlife crime (e.g., China, Hong Kong, Australia, and Sub-Saharan Africa).
- Payments to entities operating in the traditional medicine market.

- Transaction details (email address, remittance information) make reference to traditional medicine or the traditional medicine market.
- Payments made to individuals and/or entities involved in an animal-related business (e.g., aquarium, zoo, veterinary clinic) that are inconsistent with the client's profile.
- Purchases and/or payments for travel-related purchases (e.g., airfare, lodging) to and from jurisdictions of concern for wildlife crime.

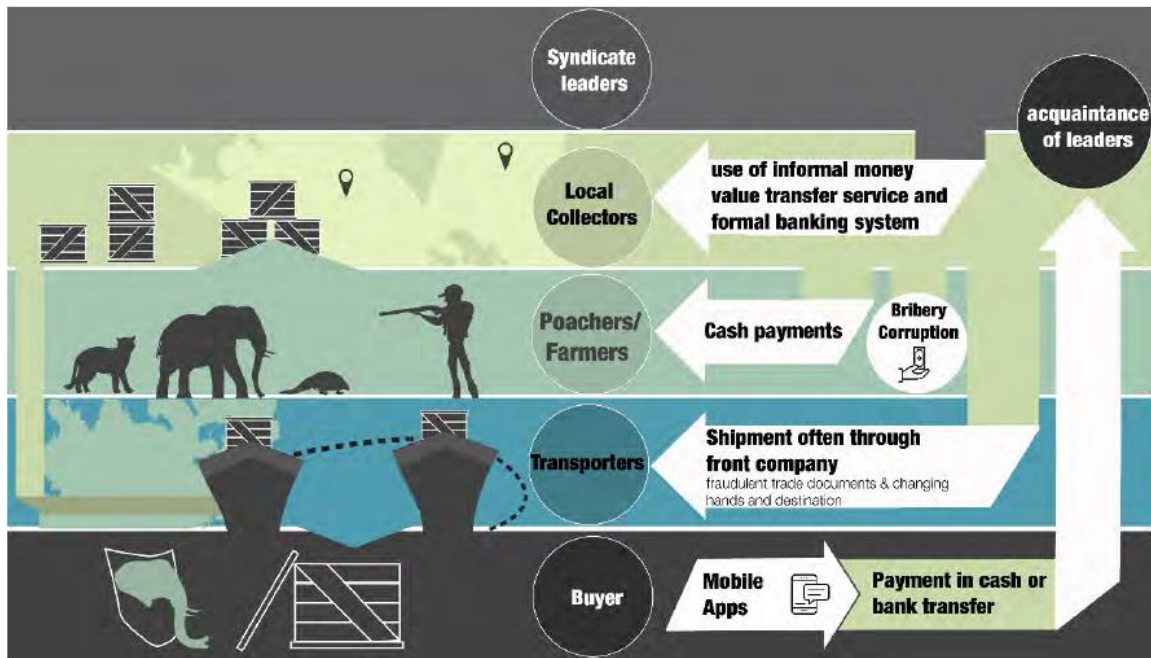
Export from Canada

- Individual or entity received multiple email money transfers or wire transfers referencing species or animal parts of concern for illegal wildlife trade from Canada (e.g., bear, grease, eels).
- Frequent purchases and/or payments for animal related goods and services (e.g., animal supplies, cages, freight equipment).
- Frequent payments to shipping entities, postal services, and/or cargo services.
- Payments received from individuals and/or entities involved in an animal-related business (e.g., aquarium, zoo, pet store) that are inconsistent with the client's profile.

Source: FINTRAC (January 31, 2023). Operational Alert: Laundering the Proceeds of Crime from Illegal Wildlife Trade. Retrieved from <https://fintrac-canafe.canada.ca/intel/operation/oai-wildlife-eng>

11.0 Appendix III – FATF Report

11.1 FATF's Depiction of the Illegal Wildlife Trade Supply Chain and Payments



Note: Syndicate leaders is defined by FATF as organized crime group leaders.

Source: Money Laundering and the Illegal Wildlife Trade (2020). Page 16. Issued by FATF.

11.2 FATF's Illegal Wildlife Trade ML Indicators

Client profiles (individuals and corporates)

- Involvement of international trade companies, including import-export, freight forwarding, customs clearance, logistics, or similar types of companies operating in the following commodities long high-risk corridors or ports⁸² for IWT supply and demand: raw or squared wooden logs, plastic waste or pellets, frozen food, fish maws, various kinds of beans, stone or quartz blocks.

- Use of common containers, consignees, transporter, clearing agents, or exporters as seen in other cases believed to involve IWT.
- Activity involving PEPs and wealthy businessmen/women, particularly those with environmental, game, or forestry oversight or environmental or wildlife related businesses.
- Involvement of legal wildlife-related entities such as private zoos, breeders, (exotic) pet stores, safari companies, pharmaceutical companies making medicines containing wildlife and wildlife collectors or reserves.
- Individual or beneficial owner(s) of a corporate domiciled in jurisdiction that is a prominent transit or demand country for illegal wildlife.

Transactions and client account activity

- Large cash deposit by government officials working in wildlife protection agencies, border control or customs and revenue officials.
- Large cash or other deposits, wire transfers, multiple cash deposits and withdrawals, and/or unexplained wealth from government officials working in forestry agencies, wildlife management authorities, zoo and wildlife park employees, or CITES Management Authorities (CMAs).
- Large cash or other deposits, multiple cash deposits and withdrawals, and/or unexplained wealth from government officials from environment or other ministries who have specific management or oversight authority of government stockpiles of seized ivory, rhino horn, timber, or other illegal wildlife products.
- Shipments of legal wildlife (fauna and flora) with anomalous, incomplete, or otherwise suspicious CITES certificates.

- Transactions using names of ingredients or products in the traditional medical trade that refer to CITES species.
- Illogical or anomalous loans between trading or import/export companies in key IWT source or transit countries.
- Switched bills of lading by traders previously implicated in criminal activity involving wildlife trafficking or trade fraud investigations or prosecutions.
- Transactions having discrepancies between the description or value, of the commodity in customs and shipping documents and invoice, relative to the actual goods shipped or quoted price or the actual value in payments made.
- Illogical or anomalous purchases, payments, or other transactions related to gold trading from business accounts of clients. *Payments for wildlife shipping are often masked as payment for gold or to gold trading business.*
- Escrow-type transactions from/to accounts and companies with same beneficial owner in particular for payment of cross-border and transcontinental shipments.
- Transactions from known traffickers to individuals who then pay for couriers or packages via the post.
- Transactions for hired vehicles and domestic accommodation from known members of a trafficking syndicate who are not present in the country or region within a country.
- Third-party wire transfers/cash deposits to, or withdrawals by, known wildlife poachers and traffickers.
- Transaction references using specimen names or veiled speech.

- Transactions between licensed pet shop suppliers/breeders and known wildlife poachers and traffickers.
- Transactions to licenced pet shop suppliers/breeders that originate from overseas, and/or incommensurate with stated business activities.
- Large transactions to licenced pet shop suppliers/breeders where there is significant discrepancies between the animal/product ordered and the value of the good.
- International wire transfers from known wildlife traffickers to a relative's accounts as tuition, allowance, or family support payments.
- Large dollar wire transfers between wildlife farms and firms operating in inconsistent lines of business. Particular attention should be given to payments with firms that produce goods which may be used as "cover loads" to hide illicit wildlife products (e.g. manufacturers / traders of coffee, tea, beans, or used clothing).
- Payments between entities operating in disparate lines of business.
- Individuals or companies suspected of being involved, or linked to, IWT networks using bank accounts and addresses located in different countries.
- Middleman transactions – large incoming payments followed by smaller outgoing payments.
- Rental card transactions with two bookings close in time in neighbouring countries.

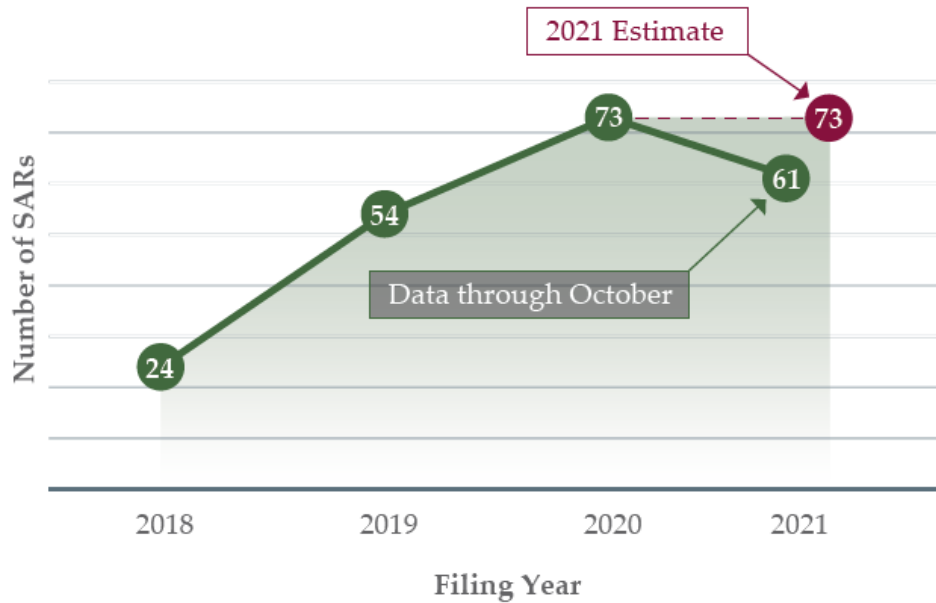
Other

- Adverse media connected to wildlife or environmental crimes identified in open and available sources on individuals and/or entities involved in reviewed financial transactions.
- Airline passengers traveling on high-risk IWT routes on tickets paid for by a third party or in cash.
- Payments from companies/owners from industries using IWT products (including traditional medicine manufacturers, leather producers, auctioneers of wildlife products, exotic food providers [including butchers, chefs, stall holders wildlife markets and restaurants]) to known wildlife traders or their associates or other entities above that have been identified as involved in IWT.

Source: Money Laundering and the Illegal Wildlife Trade (2020). Pages 60-62. Issued by FATF.

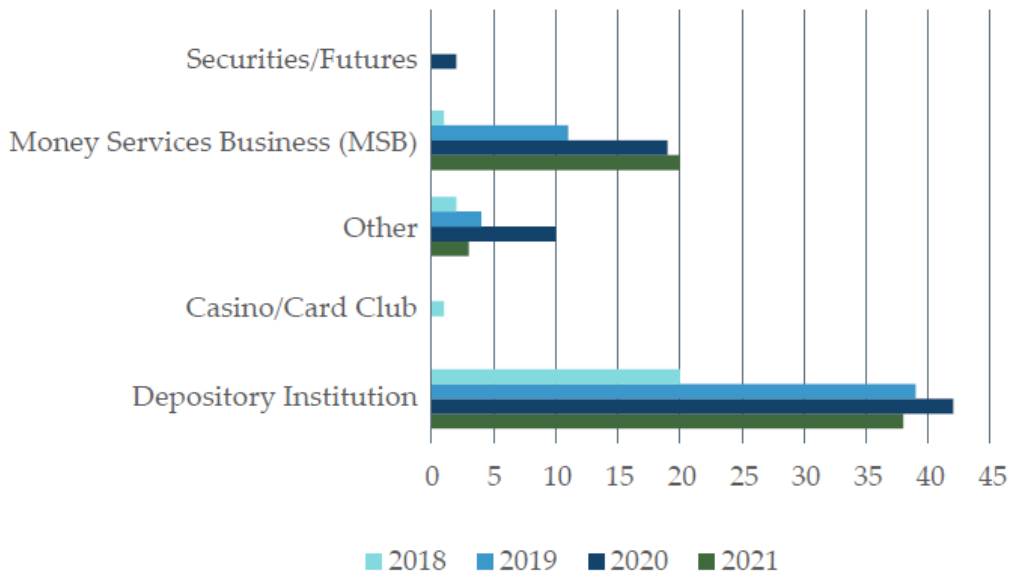
12.0 Appendix IV – FinCEN Threat Analysis

12.1 FinCEN’s Volume of Illegal Wildlife Trade SAR’s



Source: FinCEN (December 20, 2021). Page 6. *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data.*

12.2 FinCEN’s Source of Illegal Wildlife Trade SAR’s



Source: FinCEN (December 20, 2021). Page 7. *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data.*

12.3 FinCEN’s SAR’s Containing Illegal Wildlife Trade Payments (Sending and Receiving)

Location of Sending Party	Number of SARs	Location of Receiving Party	Number of SARs
United States	89	United States	106
People’s Republic of China	35	People’s Republic of China	30
Hong Kong Special Administrative Region	28	Hong Kong Special Administrative Region	27
United Arab Emirates	26	United Arab Emirates	27
Vietnam	25	Kenya	22
Kenya	20	United Kingdom	21
Uganda	20	Singapore	13
Canada	19	Tanzania	13
South Korea	15	Canada	12

Source: FinCEN (December 20, 2021). Page 9. *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data.*

12.4 FinCEN’s Illegal Wildlife Trade ML Indicators

Wildlife Trafficking-related Activity Indicators

- Prevalence of Import-Export and Logistics Companies
 - FinCEN’s analysis of wildlife trafficking-related SARs found international trade companies, including import-export, freight forwarding, customs clearance, logistics, travel agencies, or similar types of companies may be associated with wildlife trafficking, either to knowingly or unknowingly move animals or animal-associated products or parts, or may be used as front companies for the movement or laundering of illicit proceeds.
- Transactions Involving Wildlife-associated Entities

- Several SARs identified by FinCEN’s analysis mentioned private zoos, animal importers, breeders, pet stores, exotic parks, circuses, safari parks, or hunting-related businesses. For example, wildlife trafficking-related SARs referenced hunting (20 SARs), safaris (18 SARs), and zoos (five SARs).
- Transactions Referencing Wildlife-associated Care or Equipment
 - Some illicit actors engaged in wildlife trafficking conduct transactions related to the purchase or maintenance of enclosures, aquariums, food, poaching-related equipment, large game equipment, or harnesses. Wildlife-related medication or veterinary services also may be associated with the storage or care of illegally trafficked animals.
 - Additionally, transactions appearing to benefit medical or pharmaceutical research could be indicative of animals illegally trafficked for medical research.
- Convergence with Gold, Jewelry, Precious Metals, and Antiquities
 - Payments for wildlife shipping can be masked as payment to gold, diamonds, or precious metals dealers or to precious metal trading business. Additionally, gold, diamonds, and other precious metals might be used to facilitate payment as trade for wildlife or to conceal proceeds of wildlife trafficking. For example, FinCEN identified references to jewelry (11 SARs), gems (seven SARs), gold (six SARs), and precious metals (six SARs) in wildlife traffic-related SARs during the review period.
 - FinCEN also found that wildlife trafficking may be associated with the antiquities trade and illicit actors may make fraudulent claims regarding the

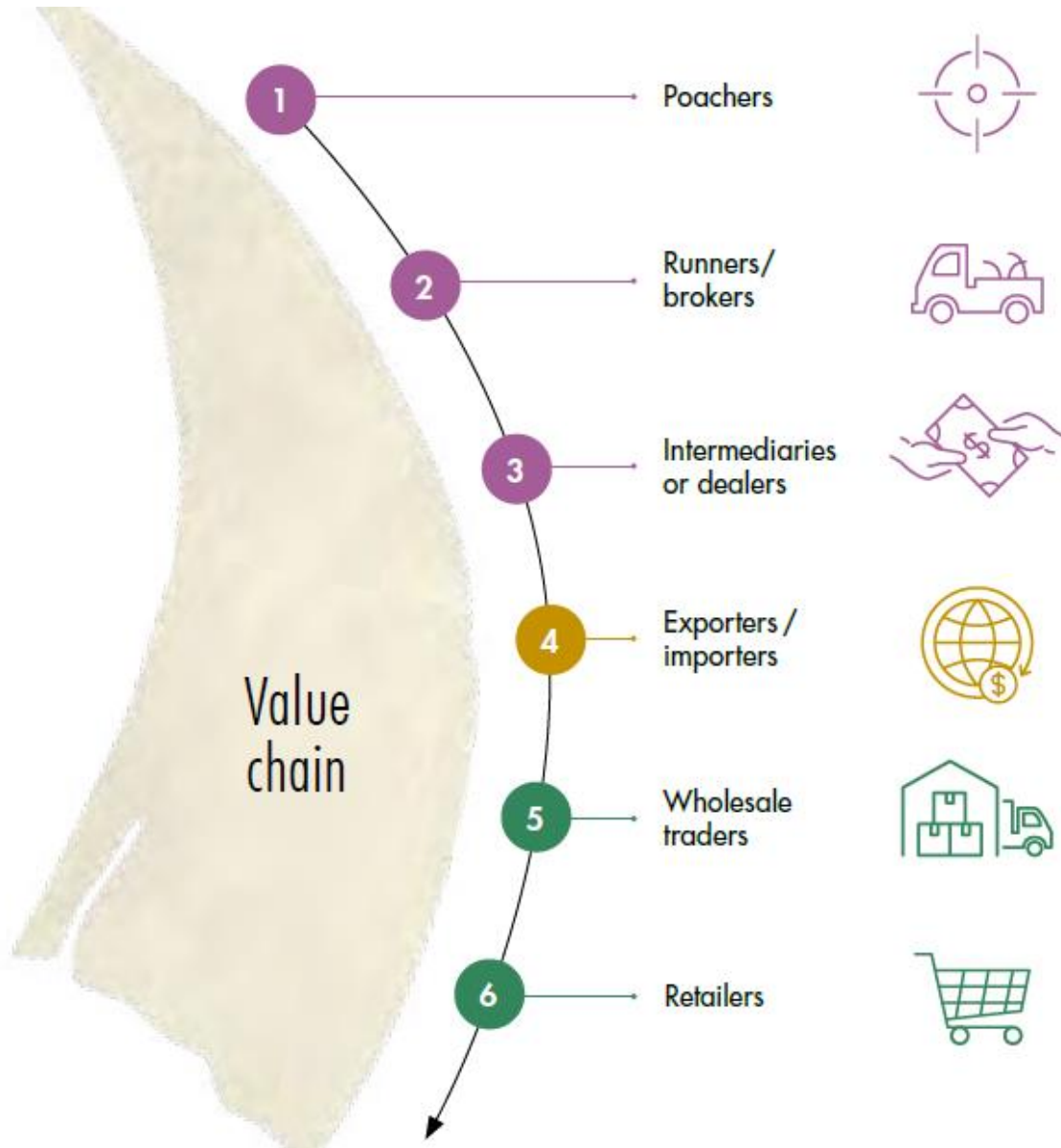
age of animal-related items or parts to avoid restrictions related to their trade, such as ivory.

- Overt or Covert References to Wildlife, Wildlife Parts, or Wildlife Products
 - Some SARs indicate that illicit actors may overtly mention wildlife or wildlife trafficking in chats or messages on platforms that support both communication and financial transactions, as well as make references in the information field of a funds transfer. FinCEN assesses that others could use images, symbols, or icons (often linked to the animal or animal part) to covertly mask wildlife trafficking activity.

Source: FinCEN (December 20, 2021). Pages 12-13. *Financial Threat Analysis: Illicit Finance Threat Involving Wildlife Trafficking and Related Trends in Bank Secrecy Act Data*.

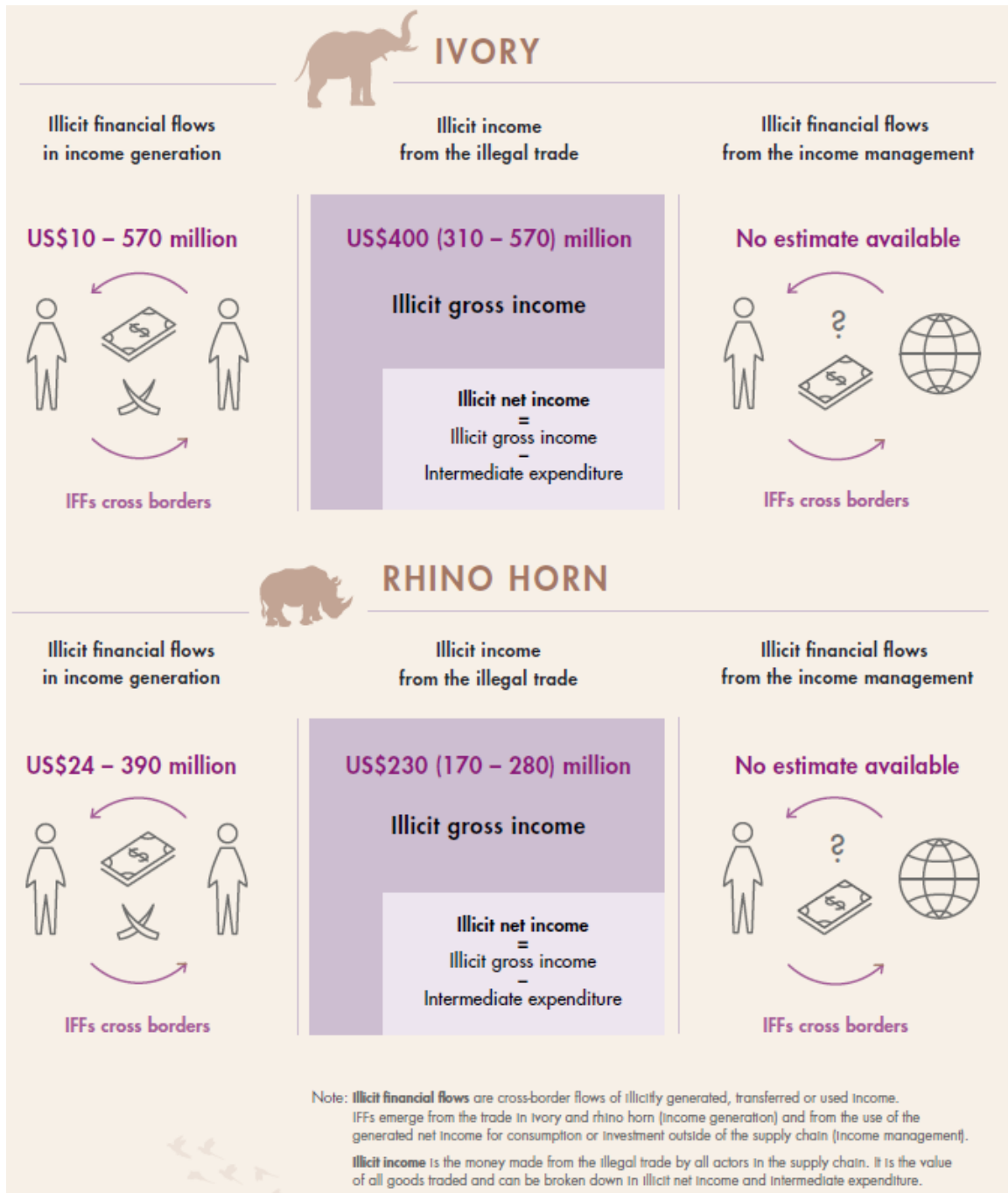
13.0 Appendix V – UNODC Report

13.1 UNODC’s Depiction of the Illegal Wildlife Trade Value Chain



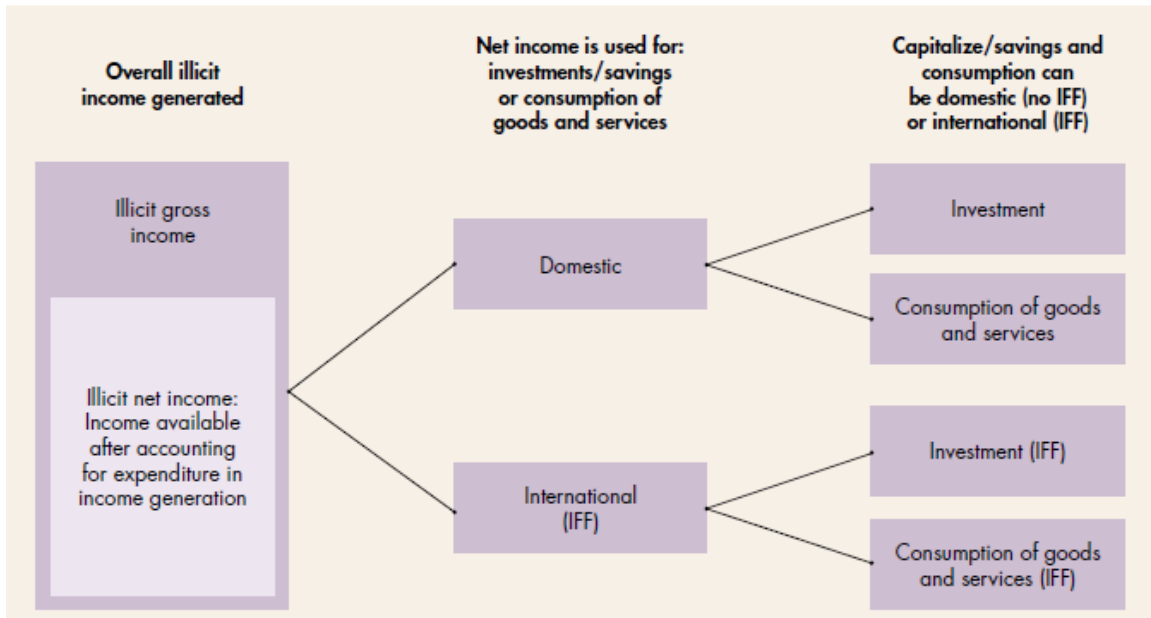
Source: UNODC (2020). Page 110. *World Wildlife Crime Report: Trafficking in Protected Species*.

13.2 UNODC Illustration of Illicit Income and Financial Flows



Source: UNODC (2020). Page 126. *World Wildlife Crime Report: Trafficking in Protected Species*.

13.3 UNODC's Depiction of Streams of Illicit Income Management



Source: UNODC (2020). Page 127. *World Wildlife Crime Report: Trafficking in Protected Species*.