STILL TRADING IN EXTINCTION

THE DARK SIDE OF HONG KONG’S WILDLIFE TRADE

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Glossary

Acronyms

AFCD | Agriculture, Fisheries and Conservation Department, Government of the Hong Kong SAR
AMC | Animal Management Centre
C&ED | Customs and Excise Department, Government of the Hong Kong SAR
CITES | Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMP | Courtroom Monitoring Programme
DoJ | Department of Justice
EIA | Environmental Investigation Agency
ENB | Environment Bureau, Government of the Hong Kong SAR
FHB | Food and Health Bureau, Government of the Hong Kong SAR
HKIA | Hong Kong International Airport
HKSAR | Hong Kong Special Administrative Region
IPBES | Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
ISD | Information Services Department, Government of the Hong Kong SAR
IUCN | International Union for Conservation of Nature
MT | Metric Tonnes (equivalent to 1,000 kilograms)
NGO | Non-Governmental Organisation
OSCO | Organised and Serious Crimes Ordinance (Cap.455)
PESAPO | Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586)
SB | Security Bureau
Sp. | Species of a genus (singular)
Spp. | Multiple species of a genus
SCIB | Syndicate Crimes Investigation Bureau’s
UNODC | United Nations Office on Drugs and Crime
US DOJ | United States Department of Justice
USFWS | United States Fish and Wildlife Service
WCO | World Customs Organisation
WiPS | Hong Kong Wildlife Product Seizures Database

Specific Terminology

Conservation

Endangered animal | Term used by the Government of the Hong Kong SAR when referring to CITES-regulated species.

“Critically Endangered” | IUCN designation for a taxon considered to be facing an extremely high risk of extinction in the wild.

“Endangered” | IUCN designation for a taxon considered to be facing a very high risk of extinction in the wild.

“Vulnerable” | IUCN designation for a taxon considered to be facing a high risk of extinction in the wild.

“Near Threatened” | IUCN designation for a taxon considered close to qualifying for or is likely to qualify for a threatened category (i.e. Vulnerable, Endangered or Critically Endangered) in the near future.

“Least Concern” | IUCN designation for a taxon that does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are often included in this category.

“Other Endangered Species” | Term used by the Government of the Hong Kong SAR when referring to CITES-regulated wildlife products that are not elephant, pangolin or wood logs.

CITES Appendix I, II or III | Appendices I, II or III to the Convention are lists of species regulated to various degrees or types of protection from over-exploitation. Appendix I lists species that are the most endangered among CITES-listed animals and plants. Appendix II lists species that are not necessarily now threatened with extinction but that may become so unless trade is closely controlled. Appendix III is a list of species included at the request of a Party that already regulates trade in the species and that needs the cooperation of other countries to prevent unsustainable or illegal exploitation.

Legal

Summary offence | Summary offences are typically less serious offences (i.e. littering, disorderly behaviour) and can only be tried in Magistrates’ Courts, unless linked to more serious offences.

Indictable offence | Indictable offences are more serious offences including those where the maximum available sentence for such a crime exceeds four years imprisonment.

District Court | Hong Kong’s District Court deals with indictable offences (i.e. drug trafficking) transferred to it from the Magistrates’ Courts. Indictable offences are criminal offences triable on indictment before a Judge alone or with a jury. A District Court Judge sits alone without a jury. They can impose a maximum sentence of 7 years imprisonment.

Magistrates’ Court | Magistrates’ Courts hear a wide range of offences, both summary and indictable. The more serious indictable offences are referred to either the District Court or the Court of First Instance. All matters appear initially in the Magistrates’ Courts. Most are disposed of at that level. They can impose a maximum sentence of 2 years imprisonment for a single offence.

Members’ Bill | Although most bills in Hong Kong are Government bills, Legislative Council Members may also introduce bills into the Legislative Council.
EXECUTIVE SUMMARY

BACKGROUND

For decades, leading scientists from around the world have been sounding the alarm citing biodiversity loss, including species extinction, as a driver of impending ecosystem collapse and, more recently, as a contributor to pandemic risk. Wildlife trade is recognized as a cause of biodiversity loss and, according to the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), around 24% of all wild terrestrial mammals and, for several notable species, has even worsened.

It should be noted that the findings are based on two main datasets:

1) The Customs and Excise Department’s (C&ED) summary data provide perhaps the best indication of overall volumes and values for wildlife seized in Hong Kong annually.

2) The Wildlife Product Seizures (WiPS) Database provides seizure details and specifically not available in C&ED’s data, thus enabling continued characterisation of the illegal trade.

WILDLIFE SEIZURES SURPASS THE PRECEDING DECADE, WHILE DYNAMICS CHANGE

In 2018 and 2019, Hong Kong authorities seized over 649 Metric Tonnes (MT) of wildlife across 1,404 seizures. These figures are indicative that despite Hong Kong’s small size, trafficking in the city is comparable to that of leading nations. In 2019, Hong Kong’s wildlife seizures (375MT) equated to almost a third of the volume seized by mainland China’s customs agency that year (1,237MT).²

The volumes seized in Hong Kong in each of 2018 and 2019 surpassed all annual totals for the preceding decade, excluding 2015 when a single exceptionally large seizure of wood took place. While the trade continues unabated, the dynamics have changed, with a decline in ivory seizures (historically a focus for local enforcement) and a dramatic increase of “Other Endangered Species” seizures (i.e. everything that is not ivory, pangolin or wood).

Indeed, 30.4MT of these “Other” species were seized in 2019 – an all-time high, and a tripling of the volume seized in 2018, which was itself threefold the volume seized in 2017. This growth also hints at diversification within the illegal wildlife trade. The increase in Other Endangered Species is of concern not least because of a general lack of transparency concerning the actual species in trade, but because many of those that could be identified are rare and threatened species destined for the exotic pet trade.

PANGOLINS REMAIN A STAPLE OF HONG KONG’S TRAFFICKERS

Pangolins, unfortunately best known as the “most trafficked mammal in the world⁴”, remain a staple of Hong Kong’s illegal wildlife trade. In 2018 and 2019, scales and carcasses equating to as many as 50,000 pangolins were seized, equivalent to a pangolin being poached every 21 minutes for the Hong Kong trade. Hong Kong is clearly playing a pivotal role in driving these creations towards extinction.

Each of these two years marked grim milestones. In 2018, the total volume of pangolin seized surpassed all records for the preceding eight years. In 2019, authorities made the largest pangolin seizure in the city’s history, comprising 8.3MT of pangolin scales (along with 2.1MT of raw elephant tusks). This single seizure equates to the scales of as many as 13,800 pangolins and the tusks of 200 elephants.⁶

The significance of the illegal wildlife trade in Hong Kong is further evidenced by the volume of pangolin scales seized in the Territory arriving from Nigeria – the leading exit point for pangolin trafficked out of Africa. Of the 78MT seized from Nigerian consignments across the world in 2018 and 2019, Hong Kong’s seizures amounted to over a quarter.⁸
EXECUTIVE SUMMARY

In terms of species, Hong Kong’s authorities seized hundreds of tonnes of ‘threatened’ wildlife, the majority of which are at risk of extinction. A diverse range of species and products were encountered including (but not limited to) Hawksbill sea turtle shell bracelets, ivory figurines, rhino horns, rosewood logs, totoaba maws, tiger bones, shark fins, dried seaweases, live Ploughshare tortoises, European eels and Humphhead wrasses.

Live animals were also trafficked in large numbers, with the Agriculture, Fisheries & Conservation Department (AFCD) reporting 6,993 endangered animals seized over 2018 and 2019. Although data is sparse on the manner of such smuggling, at least 2,407 live animals were discovered in checked and carry-on luggage of air passengers, with some being stuffed into clothing such as socks, as well as being concealed in trucks and cars.

Concerns are compounded by decisions not to pursue prosecutions in connection to three of Hong Kong’s most infamous seizures. 7.2MT of elephant tusks valued at HK$72 million in July 2017 (16), 8.3MT of pangolin scales (along with 2.1MT of raw elephant tusks) valued at HK$62 million in February 2019 (17) and 82.5kg rhino horn valued at HK$16.5 million in April 2019. The lack of prosecution in these cases is stark, since the Security Bureau (SB) cited these as prime examples of their Syndicate Crimes Investigation Bureau’s (SCIB) “determination and capacity to conduct in-depth investigations in wildlife smuggling and combat organized crime networks.” (18)

Despite the high values involved, none of the 2,542 wildlife trafficking cases investigated in Hong Kong between 2015 and 2019 have been linked to money laundering offences, despite strong indications from entities including the United Nations Office on Drugs and Crime (UNODC) (19), US Department of Justice (20) and Environmental Investigation Agency (EIA) (21) that such offences are being committed locally and in parallel with wildlife crimes.

THE DEVIL IS IN THE DETAIL

A snapshot of seizure events throughout 2018 and 2019 captured a total of 785kg of wildlife products as well as 1,234 live turtles discovered in checked and carry-on luggage of air passengers, with some being stuffed into clothing such as socks, as well as being concealed in trucks and cars.

In 2018 and 2019, illegal wildlife valued at HK$207 million was seized in Hong Kong. Compared to other lucrative crimes, the values of these seizures rank in the top five of the S8 ordinances on which the C&ED act. However, this figure is likely an underestimate of the true value of the illegal trade, not least because only a fraction of the trade is intercepted. Based on a subset of seizure data (164 events) documented in WiPS, at least 1-in-5 was valued at HK$1 million or more, six of which were estimated to be worth more than HK$5 million. The most highly valued single seizure identified was HK$62 million worth of pangolin and ivory combined.

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MONEY MATTERS

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Just 108 such events indicate that in 2018 and 2019, wildlife was seized arriving from at least 38 countries across six continents. Most seizures were from passengers arriving at Hong Kong International Airport (HKIA). From a subset of data, it can be seen that out of 164 seizure events, 73 air passengers carried a total of 785kg of wildlife products as well as 1,234 live turtles and tortoises.

By volume, however, the overwhelming majority of wildlife was seized at Hong Kong’s seaport in Kwai Chung. The largest of these were consigned from Central American nations, with six seizures from containers amounting to 245MT of wood logs arriving from Guatemala, Honduras and Panama.

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IMPRISONING PAWNS WHILE KINGPINS ROAM FREE

Based on observations of court proceedings as well as a review of publicly available data since 2017, it appears that prosecutions most frequently target comparatively insignificant carriers or ‘mules’. Where data were available, offenders were frequently observed to be financially strapped, without a prior criminal record, supporting or caring for multiple dependents and had committed the crime at the behest of a friend, boss or other contact. Almost without exception, none of those convicted appeared to be critical to the operations of criminal syndicates and it remains unclear whether others in the supply networks are typically pursued.

This compounds a longstanding issue, wherein prosecutions do not appear to be forthcoming in relation to the largest seizures made in the city. Of 19 seizures involving sea cargo containers (holding 398MT of wildlife products) in 2018 and 2019, arrests are only known for seven, resulting in one successful prosecution.

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Time for Reform - From Trafficking Hub to Global Leader

To address the lack of deterrence as evidenced by the continued rise in Hong Kong seizures, an enhanced enforcement strategy is needed. Policy reform is required, to ensure that wildlife crimes are investigated thoroughly and that those who are responsible for orchestrating and/or financing these crimes are deterred. One mechanism to do this is to use the existing legal framework and to elevate wildlife offences in the legislature, with the onus on the police and customs to investigate and prosecute. This can be achieved by incorporating wildlife crime offences under the Territory’s Organised and Serious Crimes Ordinance (Cap. 455). Indeed, in 2016 Hong Kong’s SB declared that it is “open-minded” to application of powers available under Cap. 455 in cases related to wildlife crimes. In early 2021, a Members’ Bill for such policy reform was prepared and as this document goes to print, is in the process of being submitted to the government’s legislature.

In conclusion, Hong Kong continues to have a vastly disproportionate ecological footprint for a city, let alone one of its size. As an international trade hub and a gateway to mainland China, we have an outsized responsibility to ensure that the illegal wildlife trade is not proliferating through or within our city.

This position provides us with a unique opportunity to detect, disrupt and deter organised and serious wildlife crimes as they bottleneck within the city. By updating the capacities of enforcement agencies, adopting conservation-centred approaches and meting out truly deterrent sentences to criminals and syndicates, Hong Kong can pivot from being at the heart of the problem to become a global leader in the fight against the illegal wildlife trade - with potentially far-reaching benefits for global biodiversity.

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Despite the high values involved, none of the 2,542 wildlife trafficking cases investigated in Hong Kong between 2015 and 2019 have been linked to money laundering offences, despite strong indications from entities including the United Nations Office on Drugs and Crime (UNODC) (19), US Department of Justice (20) and Environmental Investigation Agency (EIA) (21) that such offences are being committed locally and in parallel with wildlife crimes.

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INTRODUCTION

WILDLIFE CRIME THRIVES AT THE EXPENSE OF GLOBAL BIODIVERSITY

Our planet’s biodiversity is in a precarious situation. Leading scientists have been sounding the alarm for decades, citing species extinction and biodiversity loss as drivers of impending ecosystem collapse and more recently as drivers of pandemic risk. The trade and consumption of wildlife are recognised as leading causes of such biodiversity loss, and according to Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) about 24% of all wild terrestrial vertebrate species are currently in the international trade.¹⁴

The wildlife trade is estimated to have increased more than five-fold in value in the last 14 years and was estimated to be worth US$107 billion in 2019.¹⁵In parallel, the illegal trade continues to thrive and is conservatively estimated to be worth US$7-23 billion dollars annually.²⁸

Despite the scale of the illegal wildlife trade, too little action is being taken to combat the organised and serious syndicates driving this transnational criminal enterprise. Hong Kong is no exception. In fact, the Territory plays a disproportionately large role in the global flows of wildlife – both legal and illegal. Report after report has highlighted the city as a major trafficking hub.¹⁹,²³,²⁴,²⁵,²⁶,²⁷,²⁸

In January 2019, members of the Hong Kong Wildlife Trade Working Group released ‘Trading in Extinction: The Dark Side of Hong Kong’s Wildlife Trade’²⁹. Based on extensive research and interviews, the report, for the first time, provided quantifiable data on the extent and nature of wildlife crime in Hong Kong spanning 2013 to 2017. This bulletin ‘Still Trading in Extinction: The Dark Side of Hong Kong’s Wildlife Trade’³⁰ builds on that first report and provides an overview of wildlife seizures (2018-2019) and prosecutions relating to wildlife crime (2017-2020).

These offences, for the most part, relate to wildlife (live and dead animals, animal derivatives as well as plants) seized in contravention of the Protection of Endangered Species of Animals and Plants Ordinance (PESAPO)³¹. As such, for the most part the seizures relate to animals and plants threatened with extinction.

HOW TO READ THIS REPORT

In reading this bulletin it should be noted that two main datasets have been used to quantify and analyse wildlife seizures and prosecution (Box 1):

1. The Wildlife Product Seizures (WiPS) Database collates governmental data plus all publicly available data from the following sources:
   - press releases (AFCD, C&ED, ISD);
   - departmental annual reports (AFCD, C&ED);
   - Notices of Seizure (C&ED);
   - court records (DuJ, HK Judiciary);
   - courtroom observations;
   - direct correspondence with government personnel, NGO partners; and
   - media reports.

   The WiPS dataset, spanning 2013-2021, provides seizure details such as type of product, country of consignment, prosecution details, concealment methods, mode of transport, etc. The data are updated, on a monthly basis. It should be noted, however, that not all parameters are consistently available for all seizures and not all seizures reported by C&ED in their annual figures have been identified and thus included in the dataset. The dataset can therefore be viewed as the best snapshot available.

2. The Customs & Excise Department (C&ED) Annual Summary Data is understood to include all cases of both products/specimens and live animals seized by the department per year by weight. The data is provided for four categories: "Ivory Tusks or Products", "Pangolin, Parts or Specimen", "Wood logs" and "Other Endangered Species, Parts or Specimen". This dataset does not provide a breakdown of the constituents of the "Other Endangered Species, Parts or Specimen" category, nor does it provide specifics such as species or product type for the pangolin, ivory and wood seizures. Instead, C&ED has indicated that it only maintains a ‘broad classification’, i.e. the four categories.

The C&ED’s summary data provide perhaps the best indication of overall volumes and values for wildlife seized in Hong Kong annually.

The WiPS data provides seizure details and specificity not available in C&ED’s data, thus enabling continued characterisation of the illegal trade. However, this dataset does not cover all of C&ED reported seizures, since not all of these data are publicly available. Rather it tracks multiple seizures as identified from the sources noted in Box 1.

C&ED vs WiPS: The number of seizures cannot be directly compared between the two datasets, because of differences in counts of seizure cases/events, which are likely the result of different methods of classifying a seizure, e.g. incident or individuals involved.²⁹ Nevertheless, the wildlife product volumes seized and estimated values in both datasets indicate considerable overlap, despite this range in seizure numbers.

These two datasets considered together then provide the best insight into wildlife trafficking in Hong Kong. In addition, supplemental data was also identified for live animals (Section 3.1).

KEY

AFCD – Agriculture Fisheries and Conservation Department
C&ED – Customs and Excise Department
DuJ – Department of Justice
ISD – Information Services Department
NGO – Non-Governmental Organisation

The Report has been divided into three parts:
PART I Documents seizure volumes, values, indications of species, countries and modes of transport, as well as product use
PART II Examines the prosecutions following seizures
PART III Draws conclusions

PART I

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PART II

Examines the prosecutions following seizures

PART III

Draws conclusions

Box 1 Hong Kong Wildlife Seizure Data

1. The Customs & Excise Department (C&ED) Annual Summary Data

   - Volume (MT)*
   - Value (HK$)

2. The Wildlife Product Seizures (WiPS) Database

   - Volume (MT)
   - Value (HK$)

Details available

- Pangolin
- Ivory
- Wood
- Other Endangered Species
- Live animals

C&ED and WiPS Dataset Overview

- Seizure Events
- Species
- Country of Consignment
- Mode of Transport
- Penalties

WiPS

*Including live animals

PART III

Draws conclusions

The C&ED vs WiPS:

- C&ED
- WiPS

Details available

- Pangolin
- Ivory
- Wood
- Other Endangered Species
- Live animals

Species were identified for 36% of the 164 events, with higher taxonomy identification for the remainder

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PART I - SEIZURES

1. OVERVIEW OF SEIZURES

1.1 VOLUMES CONTINUE TO RISE

The C&ED reported a total of 1,404 seizure cases over 2018 and 2019 (Figure 1) categorised according to:

- Ivory Tusks or Products (elephant ivory)
- Pangolin, Parts or Specimen (pangolin)
- Wood logs, and
- Other Endangered Species, Parts or Specimen (referred to as Other Endangered Species)

By number of cases, Other Endangered Species dominated in both years and comprised seizures of live animals as well as products, and included mammals, reptiles, amphibians, birds, plants and fish. However, further breakdown (i.e. to species level) is not available in this dataset.

By volume, wildlife products seized in both years surpassed all annual totals for the preceding decade (excluding 2015 when an exceptionally large seizure of wood took place32), with 273MT (2018) and 376MT (2019) (Figure 2).

Indeed, 2018 marked a 331% increase over 2017, and 2019 saw a further increase over 2018 by 37%.

Hong Kong customs made 1,404 wildlife seizures over 2018 and 2019

In 2019 the value of Hong Kong’s wildlife seizures were the second highest in the last decade1.1

Wildlife seizures in 2019 were valued by the government at HK$134 million34—the second highest annual total in the last decade (after 2017 which was HK$142 million35) (Figure 3).

In 2019, Other Endangered Species and pangolin products accounted for over two-thirds of the value of all seizures. These were the highest values recorded for these categories since 201336 and involved HK$53 million of Other Endangered Species and HK$44 million of pangolin.

These figures place the wildlife trade, among the most highly-valued commodities/contraband seized in Hong Kong by C&ED (Box 2), as well as revealing an apparent shift away from ivory and diversification in the illegal trade of wildlife.

Seizures of pangolin products (predominantly scales33) were numerous and high volume in 2018, with an annual record-breaking 17.6MT seized in 54 cases. In 2019, while the number of cases was lower at 11, the volume remained high with 8.9MT seized.

Ivory seizures were also numerous in 2018 but yielded a comparatively low volume, with 0.37MT netted across 55 cases. In 2019, the number of cases declined to 23, though the volume rose to 2.1MT.

The Other Endangered Species made up just 3% and 8% of the volumes seized in 2018 and 2019 respectively (Figure 3), in large part because of the heavy wood seizures (246MT and 334MT), in those years.

Product volume alone however, is a poor indicator of the significance of seizures, noting that of the 39.5MT of Other Endangered Species products seized, including but not limited to rhino horn, orchids, dried seahorses, American ginseng, shark fins and live reptiles, many were from species on the brink of extinction (Section 3.2).
Part I - Seizures

Of the 58 Ordinances acted on by C&ED, seizures made under the Endangered Species Protection Ordinance consistently ranked among the five highest in terms of value.

It is noted that in C&ED’s Departmental Review 2019 (released in 2021), the figure is slightly higher at HK$135 million. However, HK$134 million has been used for the analysis as this data was broken down into four categories as noted in section 1.1.

Data Source: C&ED Departmental Reviews 2011-2019

It should be noted that Government estimates of product values have been found to be conservative in many instances (Box 3). As such, the value of wildlife seizures is probably considerably higher than estimated, not to mention that seizures represent only a fragment of the wildlife contraband likely entering Hong Kong.

Box 2 High Value Seizures Seized Under Hong Kong Ordinances in Hong Kong

<table>
<thead>
<tr>
<th>Ordinance</th>
<th>HK$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dangerous Drugs Ordinance</td>
<td>1,367,694</td>
</tr>
<tr>
<td>Import and Excise Ordinance</td>
<td>582,445</td>
</tr>
<tr>
<td>Dutiable Commodities Ordinance</td>
<td>257,644</td>
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<tr>
<td>Protection of Endangered Species Ordinance</td>
<td>135,464</td>
</tr>
<tr>
<td>Trade Descriptions Ordinance</td>
<td>118,636</td>
</tr>
</tbody>
</table>

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Data Source: C&ED Departmental Reviews 2011-2019

Box 3 Example of Conservative Endangered Species Value Estimates

HK$ 816,555

57

In September 2019, a male passenger was arrested at Hong Kong International Airport with 57 Critically Endangered tortoises in his possession. According to court filings, the total value of the tortoises was estimated at HK$816,555. However, based on market values, the individuals seized were likely worth twice as much.

HK$ 11,200 PER KG

Similar issues arise in the valuations of ivory. The Hong Kong Government has estimated the value of ivory seizures, seemingly regardless of whether it is raw, cut or worked, at around HK$9,500-11,200 per kg. This contrasts with the estimates of authorities in Mainland China, where values are four-times this amount for raw ivory.

2. THE DEVIL IS IN THE DETAIL

2.1 UNPACKING WILDLIFE PRODUCTS AND LIVE ANIMAL SEIZURES

As noted, in contrast to C&ED’s summary data, the WiPS database allows some characterisation of the illegal wildlife trade in Hong Kong, based on a smaller but representative dataset.

With the exception of live animals (where supplemental data has been identified), the following analyses are based on 164 seizure events throughout 2018 and 2019. A seizure event refers to the number of instances in which a seizure was known to be made at a specific time and location, e.g. two individuals with three different products being apprehended together arriving at Hong Kong International Airport (HKIA) would be counted as one ‘Seizure Event’.

These seizure events yielded 417 MT and 6,039 pieces of wildlife, dominated by wood logs (376 MT) (Figure 4a & b). Excluding the logs, it can be seen that the largest volume was pangolin scales (22 MT) (Figure 4c).

Furthermore, these seizure events included 2,541 live animals, according to government figures. AFCD has, however, separately reported the total numbers of live animal seizures, indicating several thousand more animals than indicated in the 164 seizure events reviewed. There is, unfortunately, no species breakdown and these numbers are therefore used for reference only (Table 1).

Figure 4 Seizures by Weight (2018-2019)

Data Source: WiPS (2020)

a) Volume

90%

5%

5%

0.03%

C&ED Data

649 MT

Elephant Ivory

54%

6%

40%

C&ED Data

68 MT

Pangolin

41 MT

Wood Logs

56%

6%

40%

C&ED Data

603 MT

Rosewoods

6%

5%

4%

C&ED Data

68 MT

Sandalwoods

1%

1%

1%

C&ED Data

68 MT

Agarwood

1%

1%

1%

C&ED Data

68 MT

Other Endangered Species

1%

1%

1%

C&ED Data

68 MT

0%
Table 1 Live Animal Seizure Data

<table>
<thead>
<tr>
<th>Data</th>
<th>Live Animals</th>
<th>2018</th>
<th>2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFCD</td>
<td>All Animals</td>
<td>4,794</td>
<td>2,813*</td>
<td>7,607</td>
</tr>
<tr>
<td></td>
<td>Endangered (CITES-listed animals)</td>
<td>4,140</td>
<td>2,851**</td>
<td>6,991</td>
</tr>
<tr>
<td>WIPS</td>
<td>All Animals</td>
<td>2,012</td>
<td>529</td>
<td>2,541</td>
</tr>
<tr>
<td></td>
<td>Endangered (CITES-listed animals)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 Live Animal Seizure Data

* FHB (2020) Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2020-21. Controlling Officer’s Reply (FHB(FE)021).

** ENB (2020) Replies to initial written questions raised by Finance Committee Members in examining the Estimates of Expenditure 2020-21. Controlling Officer’s Reply (ENB001).

2.2 A DIVERSE RANGE OF SPECIES TRAFFICKED

Following trends first observed in Trading in Extinction, a diverse array of taxa has been seized over the two years reviewed.

Thirty-seven distinct species were identified in 59 of the 164 seizure events, including 18 species that had not been previously recorded in the WiPS database (Figure 5, Table 2). For most of the remainder, identification was to a higher taxonomic level only, i.e. species was not available, and for five events, taxonomic data was not available.

Of those seizure events with higher level taxonomic information only, 22 Orders, 26 Families and 30 Genera were identified. Eleven of these higher taxonomies were new to WiPS (Table 3).

Because of the variability in taxonomic identification, the total number of species trafficked into and through Hong Kong cannot be accurately determined through WiPS data. Nevertheless, the data reveals the diversity of wildlife products that continue to be trafficked in Hong Kong.
# Part I: Seizures

## Table 2
Wildlife Seized in Hong Kong (2018-2019) Identified to Species-level, Based on 59 Seizure Events (includes products and live animals) Seizure Data

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Family</th>
<th>Genus</th>
<th>Species</th>
<th>CITES App</th>
<th>Conservation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Art, Décor and Jewellery</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pink / Queen conch</td>
<td>Strombidae</td>
<td>Strombus</td>
<td>gigas</td>
<td>II</td>
<td>NE</td>
</tr>
<tr>
<td><strong>Food, Tonics and Medicine</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian black bear</td>
<td>Ursidae</td>
<td>Ursus</td>
<td>thibetanus</td>
<td>I</td>
<td>VU</td>
</tr>
<tr>
<td>Saussurea (aka Aucklandia)</td>
<td>Asteraceae</td>
<td>Saussurea</td>
<td>costus</td>
<td>I</td>
<td>CR</td>
</tr>
<tr>
<td>Tiger</td>
<td>Felidae</td>
<td>Panthera</td>
<td>tigris</td>
<td>I</td>
<td>EN</td>
</tr>
<tr>
<td><strong>Furniture</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemalan rosewood</td>
<td>Leguminosae</td>
<td>Dalbergia</td>
<td>lucurensis</td>
<td>II</td>
<td>EN*</td>
</tr>
<tr>
<td>Honduran rosewood</td>
<td>Leguminosae</td>
<td>Dalbergia</td>
<td>stevensonii</td>
<td>II</td>
<td>VU</td>
</tr>
<tr>
<td><strong>Pets, Zoos and Breeding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American ginseng</td>
<td>Araliaceae</td>
<td>Panax</td>
<td>quinquifolius</td>
<td>II</td>
<td>NE</td>
</tr>
<tr>
<td><strong>Seafood</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mediterranean tortoise**</td>
<td>Testudinidae</td>
<td>Testudo</td>
<td>mediterraneus</td>
<td>I</td>
<td>EN</td>
</tr>
<tr>
<td><strong>Key:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shade denotes species new to the WiPS database</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* indicates species seized from a single Yuen Long village house raid in 2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>IUCN Conservation Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC: Least Concern, VU: Vulnerable, EN: Endangered, CR: Critically Endangered, NE: Not Evaluated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Conservation Status

**Legend:**
- LC: Least Concern
- VU: Vulnerable
- EN: Endangered
- CR: Critically Endangered
- NE: Not Evaluated

*Indicates species seized from a single Yuen Long village house raid in 2018.

**Not Evaluated** at the time of seizure but has since been re-categorised as ‘Endangered’ by the IUCN Red List.

**Assessed as ‘Endangered’ at the time of seizure but has since been re-categorised as ‘Critically Endangered’ by the IUCN Red List.**

---

1. **Pets, Zoos and Breeding**
   - Big headed turtle: Platysternidae, Platysternon megacephalum
   - Black pond turtle*: Geoemydidae, Geoemyda hamiltonii
   - Hawksbill sea turtle: Cheloniidae, Eretmochelys imbricata
   - Indian roof turtle: Geoemydidae, Pangshura tecta
   - Indian star tortoise: Testudinidae, Geochelone elegans
   - Masked palm civet**: Viverridae, Paguma larva
   - Pig nosed turtle: Carettochelyidae, Carettochelys insculpta
   - Ploughshare tortoise: Testudinidae, Astrochelys yniphora
   - Radiated tortoise: Testudinidae, Astrochelys radiata
   - *Assessed as ‘Endangered’ at the time of seizure but has since been re-categorised as ‘Critically Endangered’ by the IUCN Red List.

2. **Seafood**
   - Silky shark: Carcharhinidae, Carcharhinus falciformis
   - European eel: Anguillidae, Anguilla anguilla
   - Humphead wrasse: Labridae, Cheilinus undulatus
   - Totoaba: Sciaenidae, Totoaba macdonaldi

**Note:**
- Not Evaluated at the time of seizure but has since been re-categorised as ‘Endangered’ by the IUCN Red List.
- *Assessed as ‘Endangered’ at the time of seizure but has since been re-categorised as ‘Critically Endangered’ by the IUCN Red List.

**IUCN Conservation Status**
Table 3
Wildlife Seized in Hong Kong (2018-2019) Identified to Order, Family or Genera-level Only. Limited to Only Those Taxa Not Previously Recorded in WiPS (includes products and live).

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Order</th>
<th>Family</th>
<th>Genus</th>
<th>Species (not including subspecies)</th>
<th>Species included in CITES Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stony coral</td>
<td>Scleractinia</td>
<td></td>
<td>5 suborders</td>
<td>Thousands of genera Thousands of species</td>
<td>All SCLERACTINIA spp. are included in Appendix II (Except fossils)</td>
</tr>
<tr>
<td>Cacti</td>
<td>Caryophyllales</td>
<td>Cactaceae</td>
<td>133 genera</td>
<td>1,554 species</td>
<td>All CACTACEAE spp. are included in Appendix II (Except the 39 species included in Appendix I and except Pereskiia spp., Pereskiopsis spp. and Quiabentia spp)</td>
</tr>
<tr>
<td>Orchids</td>
<td>Asparagales</td>
<td>Orchidaceae</td>
<td>917 genera</td>
<td>24,746 species</td>
<td>All ORCHIDACEAE spp. are included in Appendix I or II</td>
</tr>
<tr>
<td>Potato orchids</td>
<td>Asparagales</td>
<td>Orchidaceae</td>
<td>Gastodia</td>
<td>~100 species</td>
<td>All Gastodia spp. are included in Appendix I or II</td>
</tr>
<tr>
<td>Saiga</td>
<td>Artiodactyla</td>
<td>Bovidae</td>
<td>Saiga</td>
<td>2 species</td>
<td>All Saiga spp. are included in Appendix II (Zero Quota for Wild Specimens)</td>
</tr>
<tr>
<td>Wood</td>
<td>Fabales</td>
<td>Leguminosae</td>
<td>Guibourtia</td>
<td>9 species</td>
<td>3 Guibourtia spp. are included in Appendix II</td>
</tr>
<tr>
<td>Giant salamander*</td>
<td>Caudata</td>
<td>Crypto-branchidae</td>
<td>Andrias</td>
<td>2 species</td>
<td>All Andrias spp. are included in Appendix I</td>
</tr>
<tr>
<td>Slow loris*</td>
<td>Primates</td>
<td>Lorisidae</td>
<td>Nyticetus</td>
<td>8 species</td>
<td>All Nyticetus spp. are included in Appendix I</td>
</tr>
<tr>
<td>Flapshell / soft shell turtle</td>
<td>Testudines</td>
<td>Trionychidae</td>
<td>Lissemys</td>
<td>3 species</td>
<td>All Lissemys spp. are included in Appendix II</td>
</tr>
<tr>
<td>Otter*</td>
<td>Carnivora</td>
<td>Lutrinae</td>
<td>8 genera</td>
<td>12 species</td>
<td>All Lutrinae spp. are included in Appendix II (10 species) or II</td>
</tr>
<tr>
<td>Manta ray</td>
<td>Myliobatiformes</td>
<td>Mobulidae</td>
<td>Manta</td>
<td>2 species</td>
<td>All Manta spp. are included in Appendix II</td>
</tr>
</tbody>
</table>

Notes:
- Shaded area indicates where further taxonomic information was not available.
- * indicates species seized from a single Yuen Long village house raid in 2018.

Local seizures of pangolins, the most heavily trafficked mammals on the planet, are worthy of examination in greater detail.

The WiPS database documented 20 seizures involving pangolin products in 2018 (15) and 2019 (5), amounting to 22.3MT (Figure 6). The majority were scales, predominantly from Africa. Over 90% were seized from inbound maritime containers (Section 2.8). A total of 330kg of pangolin carcasses were also seized over this period.

Four seizures weighed in excess of 1.5MT, all from containers arriving from Nigeria. The largest of these was a record seizure in February 2019, of 8.3MT scales equivalent to as many as 13,800 pangolins (Appendix)(Box 4).

Figure 6 Pangolin Seizures in Hong Kong (2018-2019)
Data Source: WiPS (2020)

Scales and carcasses from as many as 50,218 pangolins were seized in Hong Kong in 2018-2019

By comparison, the C&ED reported seizures of 26.5MT of pangolin products over the same period (Figure 7), indicating that the WiPS database likely captured approximately 84% of the volume seized. The difference between the C&ED and WiPS reported figures is therefore 4.3MT.

Relying on insights from WiPS, which includes data on country of consignment and product (i.e. scales or carcasses), the seizures of pangolin over this two-year period could then represent scales and carcasses from as many as 50,218 pangolins (Appendix) - equivalent to the poaching of one pangolin every 21 minutes.
Regarding Other Endangered Species, the bulk of seizures documented in WiPS (by volume) comprised American ginseng, followed by shark fin and seahorse (Figure 8). Of the 173kg of rhino horn identified, the majority (83%) was from just seven seizure events in 2019. Just over a half (90kg) was seized from air passengers at HKIA. Two record-breaking seizures of rhino horn occurred in both February and April of 2019 at HKIA. The first comprised 24 rhino horns (40.6kg), seized from two passengers en route to Vietnam. This marked the largest seizure recorded until the second seizure of 82.5kg from air cargo. This seizure is estimated by the government to be worth HK$16.5 million and potentially represents the killing of 14 white (or 31 black) rhinos.

By number of pieces, 6,002 pcs of various products were seized. Cacti were trafficked in the greatest numbers, followed by live turtles, live lizards and Saussurea roots.

According to the World Customs Organization (WCO), American ginseng, Saussurea and cacti were among the top five most frequently seized flora around the world in 2018 and 2019. The WCO also notes that Hong Kong had especially frequent seizures of flora, ranking third after Germany and the Netherlands.

2.4 TRENDING TOWARDS OTHER ENDANGERED SPECIES

Hong Kong ranks third after Germany and the Netherlands for seizures of flora

Box 4 Singapore also Makes Record Pangolin Seizures in 2019

Within a matter of weeks of Hong Kong’s record pangolin seizure in February 2019, Singaporean customs officials and the National Parks Board seized 12.7MT and 12.9MT of pangolin scales from containers arriving from Nigeria en route to Vietnam. These seizures, which occurred just 5 days apart in April 2019, are the largest pangolin seizures recorded globally.

The C&ED has indicated that the volumes (MT) of wildlife seized and reported include live animals (Table 1). It should be noted that live reptile volumes identified and documented in WIPS however were just 1.62kg (sea turtles) and yet 2,385 live reptiles (section 2.5) were also identified from all government data available. When data is requested from the government, the live animal data are usually provided in heads/pieces and not by weight (live European eels are the exception).
2.5 LIVE ANIMALS IN THE THOUSANDS

The AFCD has reported that 7,607 live animals (birds, pet reptiles and “Other mammals”, i.e. excluding cats and dogs) were seized in 2018 and 2019, the majority of which were reptile species. The Department separately reported seizures of 6,991 ‘live endangered’ animals (i.e. regulated under CITES) over 2018 and 2019, comprising mostly tortoises, lizards, birds, snakes, fish and stony corals. The vast majority were seized at HKIA, with the remainder primarily seized at land-boundary control points, most outbound via Man Kam To (916 animals) and Shenzhen Bay (210 animals) (Section 2.8).

WiPS data accounted for 2,541 live animals which were assumed to be a subset of the 6,991 live endangered animals reported by AFCD over the same period. As such, WiPS likely provided further details for around 36% of the live animals seized and reported by the government (Figure 9).

Of these, it was possible to determine the species for 1,085 animals which amounted to 23 species, three-quarters of which were from 11 “Endangered” and “Critically Endangered” species. Reptiles made up 94%, comprising 2,385 individuals from at least 11 species (Figure 9).

An additional 29kg of live European eels were also documented. European eels are Critically Endangered, and their trade has boomed over the last decade. Hong Kong has been identified as the “most common destination” for illegal shipments of European eels by the United Nations Office on Drugs and Crime (UNODC). It should also be noted that post-seizure care remains a considerable challenge given the scale of seizures and variety of species (Box 5).

Box 5 AFCD Seizures & Seized Animals Euthanised (2018-2019)

AFCD reported euthanising a total of 7,370 live animals (excluding cats and dogs) in 2018 and 2019. Two-thirds of these occurred in 2018, i.e. mainly animals confiscated under Cap. 586 or notably in connection with the zoonotic outbreak at the Yuen Po Street Bird Garden. Nevertheless in 2019 alone, 2,363 animal were euthanised, mainly those confiscated under Cap. 586.

Capacity at the government’s Animal Management Centres (AMCs) would also appear to be tested. In 2019, 2,890 animals (mainly those seized under Cap. 586) were received and kept by AFCD, despite there being only 25 bird cages and 16 enclosures for holding animals other than cats and dogs at government AMCs. On average, such animals were kept in an AMC for 15.1 days in 2019.

* In 2018, the number was 6,033, however, this included birds seized and culled upon detection of avian influenza in Yuen Po Street Bird Garden.

Using WiPS data, the value of the wildlife products seized were determined for 89 of the 164 seizure events (2018-2019), and amounted to between HK$170-200 million (Figure 10). It should be noted that WiPS estimates include values provided in the courts where ranges, as opposed to absolute values, are often put forward to account for uncertainty of product values.

Despite WiPS documenting markedly fewer seizure events than reported by C&ED (probably due to differences in defining a seizure), the values were comparable to C&ED’s annual summary data of HK$207 million through 2018 and 2019 (Figure 10).

In at least 31 of the 89 seizure events reviewed, the maximum estimated value was equal to or exceeded HK$1 million. Of these, six were estimated to be worth more than HK$5 million, with one single seizure of pangolin and ivory valued at HK$62 million.

Taking the maximum total value estimated (HK$200 million for 89 cases), seizures from maritime containers alone amounted to as much as HK$64 million, followed by air passengers at HK$64 million (Figure 11).

VALUE BY PRODUCT CATEGORY

To determine values by product category, mixed seizures (Figure 12) were removed from the analysis (Figure 13), since it is not possible to identify the specific product values. This leaves a maximum of HK$114 million, of which Other Endangered Species made up 55%, followed by wood logs.

Mixed Seizures

‘Mixed seizures’ refer to seizures that include more than one wildlife product type. Government departments routinely provide estimates for the combined value of all goods seized, meaning that it is not possible to determine the values of specific products in such seizures.
The last country of consignment for inbound shipments and passengers could be determined in 108 seizure events, arriving from 38 countries across six continents (Figure 14). By frequency, the largest number of seizures were made as wildlife products arrived overland from Mainland China.

2.7 ACROSS COUNTRIES AND CONTINENTS

The largest volume of wildlife products originated from North America (predominantly Central America) (Figure 15). This was largely due to six seizures from containers amounting to 245MT of wood logs across arriving from Guatemala, Honduras and Panama.
Africa was the main continent from which pangolin and ivory arrived (Figure 16). Whereas Asia was the main source region for the consignment of Other Endangered Species, the majority of which was American ginseng from Mainland China. Four hundred kilograms of shark and seahorse products were also seized arriving from Indonesia, making it the second largest source country for Other Endangered Species.

The volume of pangolin scales seized in Hong Kong arriving from Nigeria - the leading exit point for pangolin trafficked out of Africa, highlights the significance of Hong Kong in this trade. Of the 78MT seized from Nigerian consignments across the world in 2018 and 2019, Hong Kong amounted to over a quarter.

Live animals were also seized in large numbers as they arrived from across Asia and Africa.

### Figure 15
Breakdown of Seizure Volumes (MT) by Continent and Country of Consignment (2018-2019), excluding unknown (1MT)

<table>
<thead>
<tr>
<th>Continent</th>
<th>MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>416</td>
</tr>
<tr>
<td>Asia</td>
<td>22.234</td>
</tr>
<tr>
<td>Europe</td>
<td>2.541</td>
</tr>
<tr>
<td>North America</td>
<td>1.415</td>
</tr>
</tbody>
</table>

Data Source: WiPS (2020)

### Figure 16
Breakdown of Seizure Volumes by Type and Continent of Consignment (2018-19)

- 20% Wood logs (375.6MT)
- 15% Elephant ivory (25MT)
- 15% Other endangered species (16.6MT)
- 91% Pangolin (223.4MT)
- 7% Live animals (988MT)

Data Source: WiPS (2020)
Part I - Seizures

Wildlife products and live animals were seized as they were smuggled by air (via parcels/cargo and by air passengers), sea (maritime, mainly shipping containers) and land (cross-border rail, vehicle, foot) (Figure 17). Other locations for seizures included land-boundary Control Points and premises.

Maritime containers inevitably accounted for the largest volumes, including wood, pangolin and ivory (Figure 17a). A variety of modes were used for trafficking Other Endangered Species (Figure 17b & c).

### 2.8 PLANES, BOATS AND AUTOMOBILES

Wildlife products and live animals were seized as they were smuggled by air (via parcels/cargo and by air passengers), sea (maritime, mainly shipping containers) and land (cross-border rail, vehicle, foot) (Figure 17). Other locations for seizures included land-boundary Control Points and premises.

Maritime containers inevitably accounted for the largest volumes, including wood, pangolin and ivory (Figure 17a). A variety of modes were used for trafficking Other Endangered Species (Figure 17b & c).

#### SEA CARGO CONTAINERS

Twenty-five maritime containers were documented in WiPS, carrying a total of 398 MT of illegal wildlife products, mostly wood (Figure 18).

Of the remainder, pangolin dominated with 20.8 MT scales (out of the 22.3 MT pangolin products documented). Four out of the five container seizures involving pangolin were consigned from Nigeria (see Section 2.7). As noted above, the largest volume of these seizures comprised 8.3 MT of pangolin found with 2.1 MT of elephant tusks.

**Figure 18**


Data Source: WiPS (2020)

- **Elephants**: 5 MT
- **Pangolins**: 2 MT
- **Sharks**: 5 MT
- **Seahorses**: 2 MT
- **Rosewoods**: 3 MT
- **Sandalwoods**: 1 MT
- **Saiga**: 1 MT
- **Sharks**: 0.5 MT
- **European eel**: 0.1 MT
- **American ginseng**: 1 MT
- **Turtles**: 3 MT
- **Fish**: 1 MT
- **Seahorses**: 0.2 MT

**AIR PASSENGERS**

Of the 164 seizure events, seventy-three air passengers were identified carrying a combined total of 785 kg of wildlife products (Figure 19), in addition to multiple pieces of assorted wildlife products and live animals. Multiple passengers carried over 40 kg, with some carrying as much as 70 kg in their luggage.

Elephant ivory and rhino horn were the most frequently trafficked by passengers, though in relatively small volumes. Those trafficking ivory typically carried less than half a kilogram of worked products, whereas passengers smuggling rhino horn carried as much as 20 kg, comprising multiple horns and fragments.

At least 1,234 live turtles and tortoises were discovered in checked and carry-on luggage of just seven air passengers. In some cases, traffickers stuffed the animals into clothing such as socks to restrict their movement. As noted above (Box 3), a passenger was caught with 57 Critically Endangered tortoises in his baggage without any personal items.

**Figure 19**


Data Source: WiPS (2020)

- **Elephants**: 2 MT
- **Pangolins**: 2 MT
- **Bears**: 5 MT
- **Saiga**: 0.5 MT
- **Agarwood**: 0.1 MT
- **European eel**: 0.2 MT
- **American ginseng**: 0.5 MT
- **Turtles**: 1 MT
- **Fish**: 0.1 MT
- **Seahorses**: 0.5 MT
- **Sharks**: 0.1 MT

**AIR CARGO AND PARCELS**

The majority of air parcels and air cargo seized contained pangolin scales

Wildlife products seized from air cargo and parcels comprised hornbill casques, rhino horns and pangolin scales (64.7 kg). The majority however were pangolin scales (56.1 kg seized in six cases).
The wildlife products seized can be categorised into six ‘Product Use Categories’ (Figure 21), the majority of which were for luxury and non-essential purposes.

**2.9 LUXURY CONSUMPTION**

The wildlife products seized can be categorised into six ‘Product Use Categories’ (Figure 21), the majority of which were for luxury and non-essential purposes.

### Product Use Types

- **Art, Décor and Jewellery**
  - Elephant (raw tusks, cut and worked ivory); Rhino (horn carving); Orchid (live plants); Pink/Queen conch (pearls); Sea turtle (worked shell); Cacti

- **Fashion**
  - Reptile (skins)

- **Food, Tonics, Medicines and Incense**
  - Pangolin (scales and carcasses); Rhino (cut horn pieces); Seahorses (dried); American gingeng (root)

- **Furniture**
  - Wood (logs)

- **Pets, Zoos and Breeding**
  - Live animals (turtles, tortoises, lizards, birds, mammals)

- **Seafood**
  - Shark (fins); Totoaba (fish maw); Humphead wrasse (live) – note Totoaba can also be used in Traditional Medicines

### VOLUMES

The greatest volume of goods seized were likely intended for ‘Furniture’ (90%) (Figure 21), comprising mainly four species of rosewood. Rosewoods have been among the most heavily traded and trafficked hardwoods in the world, with mainland China dominating global demand and Hong Kong being a key hub.

Excluding seizures of products likely to be used for ‘Furniture’, most wildlife products seized were for ‘Food, Tonics, Medicines and Incense’. Pangolin and American gingeng made up the majority.

Elephant ivory made up the largest portion for ‘Art, Décor and Jewellery’ by weight. Other products in this category included hornbill casques, turtle and tortoise shell jewellery, corals, rhino horn carvings, Pink/Queen conch pearls, orchids and cacti.

The ‘Seafood’ category comprised mostly shark fins derived from at least two species - Hammerhead shark and Silky shark. Of note, 30kg or 95 totoaba fish maws (CITES Appendix I, Critically Endangered), valued at HK$34.8 million were seized in just two seizure events between 2018-2019. Totoaba seizures continued into 2020 with an unusual seizure of fresh (as opposed to dried) maws (Box 6).
C&ED seized 160kg of ‘fresh’ totoaba from a consignment arriving at the HKIA on 4th June 2020. Misleadingly manifested as “fresh fish”, it was packed along with frozen fish fillets. The totoaba was valued at approximately HK$25 million, making it the largest and most valuable single seizure of the species in Hong Kong to date.

Follow up investigations resulted in the arrests of two men from a Yuen Long warehouse on 5th June and a further three were arrested in Fanling on 6th June. It is unclear whether prosecution will be pursued.

In one seizure in September 2019, two live Ploughshare tortoises (CITES Appendix I, Critically Endangered) and 55 live Radiated tortoises (CITES Appendix I, Critically Endangered) were seized from an air passenger arriving from Comoros. The last available estimates suggest that there are fewer than 100 mature Ploughshare tortoises left in the wild, due to the impact of trafficking for the illegal pet trade. Considering levels of poaching the population is deemed to be in extreme risk of extinction.

In order to better understand how wildlife crime in Hong Kong is treated following seizures, multiple court cases were tracked by observing court proceedings (Court Monitoring Programme [CMP]), and reviewing public data such as Government press releases, news articles and NGO partner data.

The CMP has evolved with systematic recording of wildlife-related cases starting in 2018, although some cases were also observed in 2017 (Figure 23) and have been included.

In May 2018, the Protection of Endangered Species Ordinance was amended, introducing indictable offences and increasing the maximum penalties (Box 8). As a result, wildlife cases have been regularly elevated to the District Court, resulting in higher penalties and providing opportunities to gain greater insights through lengthier court proceedings.

For the purposes of this analysis, cases have been counted according to the number of defendants/organisations prosecuted, not by seizure event. This means that if a single seizure had multiple defendants, each defendant’s case has been recorded separately.

The CMP dataset has been compiled based on seizures that took place in 2017-2019 inclusively and were prosecuted thereafter. The last case tracked was concluded in December 2020 and related to seizures made in August 2019. This analysis does not, therefore, capture court proceedings related to seizures made in 2020.

Overall, 231 cases (including arrests) have been identified, spanning 2017-2020 (Figure 23).
Data collected includes the following, noting that such information is not consistently provided, so three subsets have then been used to analyse different aspects of the cases (Table 4):

- Court case numbers
- Nationalities of the offenders
- Particulars of the offence as it appears on the charge sheet
- Date of offence
- Plea(s) and date(s) of plea recording
- Bail terms given (if any)
- Sentence imposed
- Written judgments (if trial were heard in District Courts or higher)

The maximum penalties for offences in relation to the import, introduction from the sea, export, re-export or possession or control of specimens of Appendix I species and Appendix II & III species are as follows:

- **Appendix I**
  - (a) on summary conviction: a fine of HK$5,000,000 and imprisonment for **two** years; or
  - (b) on conviction on indictment: a fine of HK$10,000,000 and imprisonment for **10** years.

- **Appendix II & III**
  - (a) on summary conviction: a fine of HK$500,000 and imprisonment for **one** year; or
  - (b) on conviction on indictment: a fine of HK$1,000,000 and imprisonment for **seven** years.

The above revised maximum penalties apply regardless of whether or not commercial purposes are involved.

---

### Table 4

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Data subset</th>
<th>Rationale</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Prosecutions</td>
<td>1. All data 2017-2020</td>
<td>Information relating to the products and modes of transport of seizure cases are commonly available, and all 231 cases can be reviewed against these parameters.</td>
<td>231</td>
</tr>
<tr>
<td>Product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mode</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offender Characteristics</td>
<td>2. CMP 2017-2020</td>
<td>Information detailing the defendants characteristics, circumstances, charges and associated penalties.</td>
<td>164</td>
</tr>
<tr>
<td>Charges</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penalties</td>
<td>3. Cases 1st May 2018 to 31st December 2020</td>
<td>On 1st May 2018, revised penalties came into force (Box 8). All analysis relating to penalties is therefore based on cases that are post this legislative ammendment, hereafter referred to Post-Ammendment cases.</td>
<td>124</td>
</tr>
</tbody>
</table>

Box 8: Cap. 586 Amendment - Increased Penalties (1st May 2018)

The maximum penalties for offences in relation to the import, introduction from the sea, export, re-export or possession or control of specimens of Appendix I species and Appendix II & III species are as follows:

**Appendix I**

- (a) on summary conviction: a fine of HK$5,000,000 and imprisonment for **two** years; or
- (b) on conviction on indictment: a fine of HK$10,000,000 and imprisonment for **10** years.

**Appendix II & III**

- (a) on summary conviction: a fine of HK$500,000 and imprisonment for **one** year; or
- (b) on conviction on indictment: a fine of HK$1,000,000 and imprisonment for **seven** years.

The above revised maximum penalties apply regardless of whether or not commercial purposes are involved.

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According to the AFCD, in 2018 and 2019, 1,025 individuals were arrested. A total of 447 offenders faced prosecution and 377 were convicted.

It should be noted that seizures do not immediately lead to prosecution, with multiple cases reaching courtrooms over a year after the seizure. The maximum sentence reported by the AFCD was a 24-month custodial sentence.

The 231 cases identified between 2017 and 2020 account for the seizure of approximately 95.5MT and 2,991 pieces of wildlife products. Of these, 72% resulted in conviction, eight were withdrawn, three were acquitted, three were not pursued by prosecutors and the status is unknown for almost 22% (mostly where there were arrests) (Figure 24).

Just under half of the cases related to individuals and consignments arriving at the airport from 30 countries (Figure 25), the majority of which (84%) resulted in conviction. However, the corresponding volume of the wildlife products seized from these air passengers amounted to only 970kg and 1,814 pcs, as well as 1,434 live animals (exclusively turtles and tortoises) - noting that this is a longer time period than for the analysis in Part I of this bulletin.

As noted above (Section 2.8), the largest volumes of wildlife arrived via maritime containers. Despite these large quantities, prosecutions remain rare.

Nine individuals were identified relating to seven seizures of these containers:

- the only known sea cargo case that resulted in conviction was of a part-time salesperson and housewife who alleged that she allowed a contact to use her address and phone number on a customs declaration for the illegal shipment of 29MT of Honduras rosewood. She was ultimately sentenced to three months in prison. No other parties are known to have faced charges in connection with the shipment
- prosecution was not pursued against three individuals (one in 2017 and two in 2019) involving a total of 17.1MT of ivory and pangolin (Box 9).
- the status of five cases (two arrested in 2018 and three arrested in 2020), involving a total of 33.8MT of wildlife products, remain unclear.

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Figure 24: Summary of the Status of 231 Cases (2017-2020)

Data Source: WiPS (2020)

- **Convicted:** 22%
- **Status unknown:** 30%
- **No prosecution:** 4%
- **Acquitted:** 7%
The court observations highlight the longstanding issue that prosecutions do not appear to be forthcoming in relation to the largest seizures made in the city notably including three of Hong Kong’s record seizures:

- 7.2MT of elephant tusks valued at HK$72 million in July 2017, equivalent to 1,690 elephants;
- 8.3MT of pangolin scales seized with 2.1MT of raw elephant tusks in February 2019, valued at HK$62 million, equivalent to 13,800 pangolins and 200 elephants; and
- 82.5kg rhino horn valued at HK$16.5 million in April 2019, equivalent to 14 white rhinos or 31 black rhinos.

The lack of prosecution in these cases is stark, since the Security Bureau (SB) has cited these as prime examples of their Syndicate Crimes Investigation Bureau’s (SCIB) “determination and capacity to conduct in-depth investigations in wildlife smuggling and combat organized crime networks.”

5. THE OFFENDERS

131 SEIZURE EVENTS, 164 CASES

Between 2017 and 2020, 19 cases (including arrests) involving pangolin products were documented in WiPS. Fifteen have been or were being prosecuted at the time of writing, of which 12 (relating to 555kg of pangolin scales) resulted in conviction. One case was acquitted, one was withdrawn and one was ongoing at the time of writing. Of the remaining four cases, it is known that four arrests were made but that two cases were not pursued by prosecutors. These two cases were connected to the aforementioned largest pangolin seizure in Hong Kong’s history of 8.3MT of pangolin scales (Section 2.3) — which was trafficked along with 2.1MT of ivory.

Positively, the 12 convictions yielded penalties of up to 34 months imprisonment. However, the volumes in all but one case were comparatively small, ranging from 0.02kg to 56kg. All were carried by air passengers who were caught “red-handed”.

The largest single seizure (255kg) that resulted in conviction (34-months imprisonment) was made during a controlled delivery to a warehouse in Sheung Shui in September 2018, and involved a middleman who re-packaged and forwarded scales to co-conspirators in mainland China. However, this remains the only sizeable pangolin seizure in recent years to have resulted in a successful prosecution.

Indeed, it is not known whether prosecutions were pursued in relation to nine seizures involving 21.4MT of pangolin scales and carcasses from 2017 to 2020. These high volume shipments (154kg-7.2MT) were seized mostly from containers.

Some demographic and socioeconomic data relating to offenders was captured in 164 cases via the CMP. The availability of such data is varied, as indicated in Figure 26. These cases related to 154 individuals and 9 companies (one of which was prosecuted twice), between 2017 and 2020, across 131 seizure events.

Almost without exception, none of those convicted appeared to be critical to the operations of criminal syndicates and it remains unclear whether others in the supply networks are typically pursued.

### GENDER & NATIONALITY

Of the 154 individuals, 40% were from Mainland China and 25% were citizens/residents of Hong Kong (Figure 27). Nationalities of 21% were not identified. Defendants were typically first-time offenders (73 cases) and, where captured, the data indicated that these offenders were typically male (80%).
SOCIO-ECONOMIC STATUS

In 30 cases, offenders were described as being the breadwinners of their households. Additionally, 47 defendants detailed supporting or caring for an average of 2.8 dependants, including parents, children, spouses and siblings. Of these, 20 defendants described at least one dependant as suffering either a physical or mental illness.

Only nine defendants were noted to have been educated beyond secondary school.

Based on data from 41 defendants, average monthly salary was relatively low at approximately HK$7,735/month (range from HK$850 to HK$50,000). Three-quarters were earning less than HK$10,000/month. By nationality, the average salary of Mainland Chinese defendants (available in 28 cases) was HK$5,400/month whereas defendants from Hong Kong (available in 7 cases) earned in the region of HK$11,800/month.

MOTIVATION

The alleged motivations for committing the crime was indicated by 84 defendants, of whom 46 claimed to have been motivated or incentivised by some form of remuneration, such as receiving a reward for delivery or having travel costs covered. Thirty-one stated that they smuggled wildlife as a favour to a friend, boss or other contact. Other less frequent motivations included bringing wildlife products back as a gift or as medication for themselves, family or friends (Figure 28).

Of the 194 criminal charges filed, the majority (92%) were for offences in contravention of the Protection of Endangered Species of Animals and Plants Ordinance (Cap.586) (Figure 29). As such, the majority of cases are prosecuted by AFCD unless they were elevated to the District Court, in which case, the Department of Justice (DoJ) was responsible for prosecution.

Other charges observed alongside the Cap. 586 offences included contravention of:

- Cap. 169: Prevention of Cruelty to Animals Ordinance
- Cap. 139: Public Health (Animals and Birds) Ordinance
- Cap. 170: Wild Animals Protection Ordinance
- Cap. 115: Immigration Ordinance
- Cap. 109: Dutiable Commodities Ordinance
- Cap. 138: Pharmacy and Poisons Ordinance

It was observed in one case that Cap. 586 was not included in a charge relating to importing 255kg pangolin scales. The defendant was charged with:

1). Conspiracy to import unmanifested cargo contrary to sec 18(1)(a) of the Import and Export Ordinance (Cap. 60), Sections 159A and 159C of the Crimes Ordinance (Cap. 200), and

2). Breach of condition of stay in contravention of the Immigration Ordinance (Cap. 115).

The defendant received an imprisonment term of 34 months for charges 1 and 2. This was the heaviest penalty observed to be handed down.
CRUELTY NOT CONSIDERED

Live specimens were involved in 25 cases involving either import, export, or possession offences. This included 662 live turtles and tortoises, birds, fish, reptiles, small mammals as well as live European eels. Notably, the use of Cap. 169 to levy charges was only invoked in three cases, despite the inherent cruelty frequently involved in the illegal trade of live animals.

MONEY LAUNDERING NOT CONSIDERED

Despite the large sums of money involved in the illegal wildlife trade, no anti money laundering charges were observed. Indeed, the Hong Kong Government has indicated that none of the 2,542 wildlife trafficking cases in Hong Kong between 2015 and 2019 included any prosecution of money laundering offences\(^7\). These cases amounted to seizures of 1,980MT of wildlife valued at HK$572 million.\(^4\)

Entities including the UNODC\(^7\), US Department of Justice\(^9\) and the Environmental Investigation Agency\(^8\) have all provided evidence that wildlife criminals are indeed committing financial crimes in Hong Kong.

7. THE PENALTIES

Of the 164 CMP cases observed, 124 were subject to the new penalty regime introduced on May 1st 2018 (Table 5, Box 8), of which 120 resulted in convictions, one case was withdrawn, and 3 were ongoing as of December 2020.

<table>
<thead>
<tr>
<th>Cases observed in the CMP (2017-2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Source: WiPS (2020)</td>
</tr>
<tr>
<td>Pre-May 2018</td>
</tr>
<tr>
<td>40</td>
</tr>
</tbody>
</table>

According to observations, 65 custodial sentences and 58 financial penalties were handed down - of which five individuals received both a custodial sentence and financial penalty. Two individuals received community service penalties. Custodial sentences ranged from 2 weeks to 34 months and financial penalties ranged from HK$300 to HK$300,000.

Sixty-seven cases observed in the CMP involved products with a cumulative estimated value, amounting to a HK$34.69 million in total. All but one of these cases resulted in a conviction. The total value of wildlife products involved in these cases amounted to HK$30-65 million and, the total financial penalties amounted to just HK$810,250. One case was ongoing as of December 2020.

For the limited number of prosecutions (11 cases) where both the seizure value and corresponding fine were available\(^1\), i.e where a penalty can be matched to the value of the product seized, the fines levied amounted to HK$412,000 against a total product value of HK$4.1 million, i.e. 10% of the estimated value of the products seized.
MOVING TO DISTRICT COURT

Of the 124 post-amendment cases observed, a third were moved to the District Court where the maximum penalty is 7 or 10 years imprisonment for offences relating to Appendix II and Appendix I species, respectively. The maximum and minimum penalties handed down in these cases are presented in Table 6.

With more cases being moved to District Court, increased severity of custodial sentencing has been observed with the smugglers of relatively small volumes of wildlife products receiving custodial sentences. The smallest seizures by volume to date moved up to the District Court were two cases linked to a single seizure involving 1.32kg of rhino horn pieces, for which the defendants received a 12-month prison sentence in one case and 8 months in the other.

The penalty amendment has thus ensured that multiple cases have been tried in the District Court and penalties have indeed been harsher, though still far from the maxima. Fundamentally, however, it remains that hapless, incentivised or coerced mules are being prosecuting, rather than the so-called “masterminds” behind the crime or the chief beneficiaries. While these low-ranking carriers are likely being deterred from reoffending, many more wait in the wings to be recruited for relatively little money.

Despite the express purpose of the amendment of penalties under the Protection of Endangered Species of Animals and Plants Ordinance (PESAPO) in 2018 “to provide a strong deterrence against illicit wildlife trade and show that the Government is very serious about deterring these crimes”, the persistent focus on low level mules will do little to deter those who are fundamentally making large profits from these crimes.

In the three years since the publication of Trading in Extinction: The Dark Side of Hong Kong’s Wildlife Trade, scientists have continued to sound the alarm concerning increasing biodiversity loss including species extinction, the resulting ecosystem impacts and, importantly, the role of the wildlife trade – both legal and illegal.

These trades remain alive and well in Hong Kong as evidenced, in part, by wildlife seizure and prosecution data gathered across 2017 to 2020. Clearly, wildlife trafficking continues unabated in the city, despite the government’s efforts in 2018 to deter criminals by raising penalties.

Concerningly, the data indicate increases in the frequency, volumes and values of seizures, continuing an upward trend that has been ongoing for at least a decade. They indicate that the trade provides live animals and wildlife products almost exclusively for luxury and non-essential uses including for ornaments, décor, exotic pets, furniture and traditional medicines. Many of the species are threatened and all are regulated to prevent their extinction due to pressures from the international trade.

While seizures continue to grow, the data suggest a change in trade dynamics with volumes of the government’s catch-all category “Other Endangered Species” increasing to an all-time high, whereas ivory seizures declined. Pangolin scales remain a staple for local traffickers, which is consistent with the UNODC’s 2020 report that highlights a ten-fold increase in pangolin seizures globally since 2014.

The increase in Other Endangered Species is of concern, not least because of a general lack of transparency concerning the actual species in trade, but because many of those that could be identified, are rare and threatened species destined to be exotic pets, despite their poor suitability for such. Indeed, the limited information available across a number of seizure events, indicate a broad range of species, many of which had not been identified previously in Hong Kong’s publicly available data.

Live animal seizures have recently been thrown into the spotlight because of animal and public health concerns such as the risk of spillover from zoonotic diseases (e.g. avian flu, SARS, COVID-19, psittacosis, COVID-19) from under regulated and/or illegal trade, as well as the potential for cross-species disease transmissions into local animal populations.

Notably, thousands of live animals were seized in Hong Kong throughout 2018 and 2019, largely reptiles. Like other taxa, reptiles can be reservoirs of a wide variety of pathogens, some of which may be of public health concern, particularly to immunocompromised individuals. Due to the poorly regulated globalised trade in animals, diseases are increasingly spreading, with unfamiliar pathogens posing threats locally and globally. The emergence of new strains and potential ‘host-jumping’ of existing pathogens can also cause population die-offs and further threaten the survival of wildlife and captive populations not yet adapted to these novel diseases.

Crucially is also a pervasive issue throughout the live animal supply chain that is rarely acknowledged, nor is the euthanising of the “rescued” endangered animals that has followed in thousands of instances. The outsized role that Hong Kong plays in wildlife trafficking of both live animals and products is evidenced by disproportionately large and frequent seizures (such as those of pangolin scales), which are comparable to entire nations. Further, the figures do not capture the hundreds (potentially thousands) of seizures of wildlife taking place that were intercepted before arriving in Hong Kong, or that were seized after being successfully trafficked through Hong Kong. For instance, a survey of reported criminal cases prosecuted in Mainland China from 2014 and 2018 revealed that 50% of rhino horn and tiger bone trafficking cases had entered the Mainland via Hong Kong. Criminal groups are succeeding in evading detection in Hong Kong, and it would appear tiger products are among those species slipping through the cracks. Yet, while the enforcement actions against wildlife trade...
crimes yielded among the most highly-valued contraband being seized in the city, involving dozens of species, hundreds of offenders, thousands of live animals and hundreds of millions of dollars-worth of wildlife, the associated prosecutions have not targeted the organised and serious criminal groups driving the illegal trade. Most of those convicted carried the goods for a third party, many were first-time offenders and had been incentivised by, what are in essence, inconsequential sums of money. Meanwhile, prosecutions have not been pursued in some of the city's largest and most infamous seizures. Further, even in the face of numerous multi-million-dollar busts, the city has yet to link financial crimes to wildlife prosecutions and confiscate the proceeds of these crimes, despite considerable evidence of the nexus between the two.

MOVING AWAY FROM THE STATUS QUO AND REFORMING POLICY

Continuing with the Government’s current approach, and maintaining the status quo, will do little to deter those orchestrating and benefiting from the supply chains fuelling the illegal wildlife trade in Hong Kong. To address the lack of deterrence, as evidenced by the continued growth of Hong Kong’s wildlife seizures, an enhanced enforcement strategy is needed. Policy reform is required, to ensure that wildlife crimes are investigated thoroughly and that those who are responsible for facilitating and/or financing these crimes are deterred.

It should be recognised that the Convention on Trade in Endangered Species of Fauna and Flora (CITES) entered into force forty-six years ago and did not foresee the rapid growth of the wildlife trade nor the evolution of the organised crime that now perpetuates, to circumvent it. Similarly, national regulations put in place to meet CITES requirements, such as those in Hong Kong, are for the most part no longer fit for purpose.

Elevating wildlife crime offences in Hong Kong’s legislature to treat such offences as Organised and Serious and thus facilitate criminal investigation of those behind the crimes, would go a long way towards the much-needed policy reform. One approach to address this, is to use the existing legal framework and to elevate wildlife offences in the legislature, with the onus on the police and customs to investigate and prosecute. This can be achieved by incorporating wildlife crime offences under the Territory’s Organised and Serious Crimes Ordinance (OSCO, Cap. 455). Indeed, in 2019 Hong Kong’s Security Bureau declared that it is “open-minded” to application of powers available under Cap. 455 in cases related to wildlife crimes. In early 2021, a Members’ Bill for such policy reform was prepared and as this bulletin goes to print, is in the process of being submitted to the government’s legislature.

While the scale of the challenge is immense, Hong Kong is uniquely situated to play an outsized role in detecting, deterring, disrupting and dismantling the syndicates operating in and through the city. It is vital that decisive and incisive action is taken to change our city from being a hub for the illegal wildlife trade to become a global leader in the fight against it. Otherwise, as scientists warn, we will continue to inflict irreversible damage on the world’s biodiversity, and suffer the impacts long into the future.

Although the government has not provided species data for any seized pangolin products, the increased detail provided in the WiPS Database provides an opportunity for estimating the potential pangolin equivalents. Calculations are based on the product type (i.e. scales, carcasses) in combination with the continent of consignment (Table A-2) and the average weights of various products established by Hofberg et al. (2015) (Table A-3), allowing for conversions of the seizure volumes to individual animals (Table A-4). These rely on a series of assumptions:

- Chinese pangolins were excluded due to the species being ‘commercially extinct’ in China. And no confirmed cases of pangolin derivatives incoming from China.
- Where data on the country of consignment is unknown i.e. 4.7MT in WiPS, the average weights for scales and carcasses from all species (excluding the Chinese pangolin) were used to give to give upper and lower estimates, respectively.
- C&ED summary data accounted for 4.3MT of pangolin derivatives in excess of the total in WiPS. This amount was added into the analysis and assumed to be either all scales or all carcasses to give upper and lower estimates, respectively.

The maximum and minimum numbers were calculated based on:

- The heaviest and lightest scale and descaled body weight of Asian and African species.
- Average descaled body weight of the African species and the Asian species (excluding the Chinese pangolin as noted).

### APPENDIX

**METHODOLOGY FOR CALCULATION OF PANGOLIN NUMBERS**

Pangolin derivatives seized over the period 2018-2019 are presented in Table A-1.

<table>
<thead>
<tr>
<th>Seizure Quantity kg</th>
<th>2018</th>
<th>2019</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;ED Summary Statistics</td>
<td>17,600</td>
<td>8,940</td>
<td>26,540</td>
</tr>
<tr>
<td>WiPS Database</td>
<td>13,659</td>
<td>8,610</td>
<td>22,269</td>
</tr>
<tr>
<td>- Scales</td>
<td>13,329</td>
<td>8,610</td>
<td>21,939</td>
</tr>
<tr>
<td>- Carcasses</td>
<td>330</td>
<td>330</td>
<td>660</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product and Corresponding Volume, Sorted by Continent of Consignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continent of Consignment</td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>- Scales</td>
</tr>
<tr>
<td>- Carcasses</td>
</tr>
<tr>
<td>Asian</td>
</tr>
<tr>
<td>- Scales</td>
</tr>
<tr>
<td>- Carcasses</td>
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<tr>
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</tr>
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<td>- Scales</td>
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<td>- Carcasses</td>
</tr>
<tr>
<td>Additional Unknown (C&amp;ED)</td>
</tr>
<tr>
<td>Total (WiPS)</td>
</tr>
<tr>
<td>Total (C&amp;ED)</td>
</tr>
</tbody>
</table>
### Table A-3
Pangolin Data Used to Convert Scales and Carcasses to Individual

Data Source: Hofberg et al. (2015)

<table>
<thead>
<tr>
<th>Common Species Name</th>
<th>Taxonomic Species Name</th>
<th>Continent</th>
<th>CITES Status</th>
<th>IUCN Status</th>
<th>Average Total Weight (kg)</th>
<th>Average Scale Weight (kg)</th>
<th>Average De-scaled Carcass Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giant Ground Pangolin, Giant Pangolin</td>
<td>Smutsia gigantea</td>
<td>Africa</td>
<td>Appendix I</td>
<td>Vulnerable</td>
<td>12</td>
<td>3.6</td>
<td>8.4</td>
</tr>
<tr>
<td>Temminck’s Ground Pangolin, Cape Pangolin, Ground Pangolin, Scaly Anteater, South African Pangolin, Steppe Pangolin</td>
<td>Smutsia temminckii</td>
<td>Africa</td>
<td>Appendix I</td>
<td>Vulnerable</td>
<td>9.7</td>
<td>2.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Black-bellied Pangolin, Long-tailed Pangolin</td>
<td>Phataginus tetradactyla</td>
<td>Africa</td>
<td>Appendix I</td>
<td>Vulnerable</td>
<td>2.2</td>
<td>0.66</td>
<td>1.54</td>
</tr>
<tr>
<td>White-bellied Pangolin, African White-bellied Pangolin, Three-cusped Pangolin, Tree Pangolin</td>
<td>Phataginus tricuspis</td>
<td>Africa</td>
<td>Appendix I</td>
<td>Vulnerable</td>
<td>2</td>
<td>0.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Sunda Pangolin, Malayan Pangolin</td>
<td>Manis javanica</td>
<td>Asia</td>
<td>Appendix I</td>
<td>Critically Endangered</td>
<td>8</td>
<td>0.36</td>
<td>7.64</td>
</tr>
<tr>
<td>Philippine Pangolin</td>
<td>Manis culiomenis</td>
<td>Asia</td>
<td>Appendix I</td>
<td>Endangered</td>
<td>2.1</td>
<td>0.41</td>
<td>1.69</td>
</tr>
<tr>
<td>Indian Pangolin, Thick-tailed Pangolin</td>
<td>Manis crassicaudata</td>
<td>Asia</td>
<td>Appendix I</td>
<td>Endangered</td>
<td>9.5</td>
<td>1.9</td>
<td>7.6</td>
</tr>
<tr>
<td>Chinese Pangolin*</td>
<td>Manis crassicaudata</td>
<td>Asia</td>
<td>Appendix I</td>
<td>Critically Endangered</td>
<td>4.85</td>
<td>0.57</td>
<td>4.28</td>
</tr>
<tr>
<td><strong>OVERALL AVERAGE</strong> (excl. Chinese pangolins)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>6.5</strong></td>
<td><strong>1.49</strong></td>
<td><strong>5.01</strong></td>
</tr>
</tbody>
</table>

*Excluded from conversion analysis, due to the near extinction of the entire species.

### Table A-4
Derivation of maximum and minimum pangolin equivalents considering the consignment routes

<table>
<thead>
<tr>
<th>Continent of Consignment</th>
<th>Lightest Species (# of pangolins)</th>
<th>Heaviest Species (# of pangolins)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>White-bellied Pangolin</td>
<td>Giant Ground Pangolin</td>
</tr>
<tr>
<td>- Scales</td>
<td>33,945</td>
<td>5,658</td>
</tr>
<tr>
<td>- Carcasses</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Asia</td>
<td>Sunda Pangolin</td>
<td>Indian Pangolin</td>
</tr>
<tr>
<td>- Scales</td>
<td>3,104</td>
<td>588</td>
</tr>
<tr>
<td>- Carcasses</td>
<td>43</td>
<td>43</td>
</tr>
<tr>
<td>Unknown (WIPS)</td>
<td>Sunda Pangolin</td>
<td>Giant Ground Pangolin</td>
</tr>
<tr>
<td>- Scales</td>
<td>1,263</td>
<td>126</td>
</tr>
<tr>
<td>- Carcasses</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Unknown Excess (C&amp;ED)</td>
<td>Sunda Pangolin</td>
<td>Giant Ground Pangolin</td>
</tr>
<tr>
<td>- Assumed to be scales</td>
<td>11,864</td>
<td>1,186</td>
</tr>
<tr>
<td><strong>Total (WIPS)</strong></td>
<td>38,355</td>
<td>6,415</td>
</tr>
<tr>
<td><strong>Total adding (WIPS and C&amp;ED difference)</strong></td>
<td>50,218</td>
<td>7,601</td>
</tr>
</tbody>
</table>
and resulted in a 32 month custodial sentence. Over this period ADMCF observed one case which concluded in 2019

most endangered tortoises and freshwater turtles - 2018
Live Humphead wrasse were seized from the ‘Seafood’ sector.
Government of Hong Kong SAR. Available at: https://www.info.gov.hk/gia/
February 2021]. ISD (2020)
Financial Services and the Treasury Bureau (2020)
This includes two defendants who were described as being from Mainland China but were also residents of Mexico and one defendant who was described as Mainland Chinese but a resident of Suriname.
Koby, J. L., Smith, K. M., Berges L., Karesh, W. B., Preston, A., Pessier, A. P., & Satterfield, L. F. (2014). First evidence of amphibian chytrid fungus (Batrachochytrium dendrobatidis) and ranavirus in Hong Kong amphibian trade. PLoS ONE, 9(3). Available at: https://doi.org/10.1371/journal.pone.0097050
There is only one record of tiger products being seized in the WPS Database, observed through the CMP, involving 168 bottles of medicine containing tiger bones and Potato orchid (Gastrodia sp.).
US DOJ (2020) Bill 2017 (LC Paper No. CB(1)508/17-18). Available at:
C&ED (2019)
For our reports, we have used the term ‘Rosewood’ for Dalbergia and the same location, it was suspected that these cases may indeed be one and the same. However, due to the difference in weight and values, we have included these as separate cases. Clarification was being sought from the Government around the time of publication.
For our reports, we have used the term ‘rosewood’ for Dalbergia and Guibourtia species exclusively, in line with terminology adopted by the Hong Kong Government documents.
The UNDOC note that “rosewood” is a trade term used for a range of hardwood species. In line with CITES listings, they include those regulated species of the Dalbergia, Plenocarpus, Paubrasilia, Guibourtia, Platymiscium and Senna genera under this term.
FAO & UNEP (2020) For reference and to provide some context, 45 seizure events were identified in WPS involving maritime containers (amounting to 680MT of wildlife products) for the years 2017-2020.
For the purposes of these two seizures, comprising atypically large volumes of American Ginseng, both seized around the same time and at the same location, it was suspected that these cases may indeed be one and the same. However, due to the difference in weight and values, we have included these as separate cases. Clarification was being sought from the Government around the time of publication.
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