

AN ASSESSMENT OF **WILDLIFE** **POACHING AND** **TRAFFICKING** IN BOLIVIA AND SURINAME



COLOPHON

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TABLE OF CONTENTS

CONTENTS • 4

ACRONYMS • 6

EXECUTIVE SUMMARY • 7

- Introduction • 11

- Results • 7

- Recommendations • 8

1 INTRODUCTION • 11

1.1 Objectives and scope • 11

1.2 Methodology • 12

1.3 Contents of this report • 12

2 WILDLIFE POACHING AND TRAFFICKING IN THE AMAZON • 13

2.1 Examples of species at risk from poaching and trafficking • 13

2.1.1 Parrots • 13

2.1.2 Jaguars • 14

2.1.3 Vicuñas • 14

2.1.4 Andean bears • 15

2.2 The impact of infrastructure development in the Amazon • 15

3 PLURINATIONAL STATE OF BOLIVIA • 17

3.1 Introduction • 17

3.2 Legal wildlife trade • 18

3.2.1 Legal framework • 18

3.3 Illegal wildlife trade • 19

3.3.1 Analysis of wildlife crime incidents • 20

3.3.2 Illegal jaguar trade • 21

3.3.3 Illegal bird trade • 24

3.3.4 (Illegal) bushmeat trade • 26

3.3.5 Government response • 28

3.3.6 The impacts of infrastructure development • 29

3.4 Conclusions • 30

4 REPUBLIC OF SURINAME • 31

4.1 Introduction • 31

4.2 Legal wildlife trade • 31

- Market shifts for Suriname's legal wildlife trade • 33

- Discrepancies in reported CITES trade data • 33

- Relevant agencies • 34

4.2.1 Legal framework • 34

4.2.2 Export quota • 35

4.3 Illegal wildlife trade • 36

4.3.1 Analysis of wildlife crime incidents • 36

4.3.2 Illegal trade in jaguar parts • 36

4.3.3 Illegal trade in live animals for the pet trade • 41

- Routes and smuggling methods • 41

- Domestic demand for rare species • 43

- Examples of species threatened by illegal trade/overexploitation • 44

4.3.4 Illegal bushmeat trade • 46

4.3.5 Illegal trade in sea turtle eggs • 48

4.3.6 Impact of gold mining and timber logging • 49

4.3.7 Government response • 49

4.4 CONCLUSIONS • 50

ANNEX 1 WILDLIFE CRIME INCIDENTS BOLIVIA AND SURINAME • 61

Wildlife crime incidents Bolivia • 61

Selection: jaguars seizures/incidents Bolivia • 72

Wildlife crime incidents Suriname • 73

Selection: jaguar and other cat seizures / incidents Suriname • 77

ACRONYMS

CIPCA	Centro de Investigación y Promoción del Campesinado
CITES	Convention on International Trade in Endangered Species of wild fauna and flora
CNPC	China National Petroleum Corporation
DGBAP	Dirección General de Biodiversidad y Áreas Protegidas
EU	European Union
FAO	UN Food and Agriculture Organization
FOB	Free on Board (or Freight on Board)
GDP	Gross Domestic Product
GEF	Global Environment Facility
IFAW	International Fund for Animal Welfare
IIRSA	Initiative for the Regional Integration of South America
IUCN	International Union for Conservation of Nature
NGO	non-government organisation
Pofoma	Policía Forestal y Preservación del Medio Ambiente
RGB	Suriname Ministry of Ruimtelijke Ordening, Grond- en Bosbeheer
TIPNIS	Isiboro Sécure Indigenous Territory and National Park
UNEP-WCMC	United Nations Environment Program World Conservation Monitoring Centre
UNODC	United Nations Office on Drugs and Crime
WCS	Wildlife Conservation Society
WWF	Worldwide Fund for Nature

EXECUTIVE SUMMARY

Wildlife poaching and trafficking pose a serious threat to the unique species inhabiting the Amazon. These crimes impact not only the species concerned but also the ecosystems they belong to (particularly in the case of keystone species), local communities dependent on wildlife for their livelihoods, the economy of countries concerned and, last but not least, the rule of law.

IUCN National Committee of the Netherlands (IUCN NL) commissioned EcoJust to conduct an assessment of wildlife poaching and trafficking in the Amazon in order to enhance understanding of the issue and inform potential future engagement. Bolivia and Suriname were selected as focal countries both because they were deemed to be representative of the wider region and in light of several years of in-country engagement on the part of IUCN NL.

The project aimed to compile and analyse information on wildlife poaching and trafficking in Bolivia and Suriname, including the key species targeted, the trafficking routes and main destinations, and key drivers. The legal wildlife trade was reviewed to provide clues toward understanding the illegal trade. An attempt was also made to assess the impact of infrastructure development and natural resource extraction by foreign entities on the occurrence of wildlife crime.

Information was gathered between December 2017 and February 2018 through open source research, interviews, and a field mission to Suriname. A wildlife crime incidents database was compiled based on media reports of seizures, arrests and other incidents concerning poaching and trafficking of protected wildlife species. Although this data set due to the lack of government data is incomplete and represents only a fraction of actual levels of poaching and trafficking, it does provide an insight into wildlife crime threats in the countries concerned.

Results

Bolivia has strict legislation in place for the protection of its wildlife. Currently only (parts and products of) vicuña (*Vicugna vicugna*) and spectacled caiman (*Caiman crocodilus*) can be legally exported, but there are indications that these species continue to be poached and trafficked. Rare and thus expensive parrots reportedly also continue to be trafficked (via neighbouring countries), but this international trade is dwarfed by the domestic trade in parrots and other wildlife for the pet market. Other key wildlife crime issues include the commercial bushmeat trade and the trafficking of jaguar (*Panthera onca*) parts (particularly canines) to China. Since 2014, Bolivia has seen a surge in trafficking of jaguar parts, which appears to be driven almost entirely by Chinese nationals - including both long term residents and newly arrived migrant workers - living in Bolivia. Compliance with Bolivia's wildlife laws is undermined by traditions favouring the use of wildlife for consumption and as pets. Other challenges include inadequate law enforcement capacity; a multi-layered government structure which hinders effective collaboration; corruption; and badly controlled, porous land borders through which systematic wildlife smuggling occurs.

Suriname has a liberal regime for the export of wildlife and the country ranks among the biggest exporters of live, wild-sourced reptiles and birds from Latin America. The government has been unable to answer questions from international organisations - such as

the Convention on International Trade in Endangered Species of wild fauna and flora (CITES) - about the sustainability of this trade, claiming it lacks the funds to do the necessary research. To date, initiatives to encourage traders to turn to captive breeding have been largely unsuccessful. Suriname's environmental and wildlife legislation is outdated, but a non-government organisation (NGO) led initiative is under way to revise this. Key wildlife crime issues include the commercial bushmeat trade; illegal cross-border trade in live animals for pets; illegal trade in sea turtle eggs; and illegal trade in jaguar parts. There are indications that Chinese individuals were buying jaguar parts as early as 2003, and that an organised network is orchestrating the procurement, processing into medicines and jewellery, sales (domestically, through shops and social media) and smuggling to China. Challenges to curbing wildlife crime in Suriname include inadequate law enforcement capacity and resources exacerbated by a failing economy; diverging regimes for wildlife export within the Guianas which are abused by traffickers and create incentives for cross-border smuggling; and corruption.

Like other countries in the Amazon, both Bolivia and Suriname are undergoing major infrastructure development driven by trade and transportation as well as the search for valuable extractive resources such as timber, minerals and oil. New roads into wilderness areas are both driving environmental degradation and fueling wildlife poaching and trafficking. Indigenous communities are incentivised to shift away from sustainable hunting practices to unsustainable commercial hunting to feed a demand for bushmeat and live animals for the pet trade. This results in the depletion of wildlife near roads and settlements in particular. Workers in the infrastructure and mining industries residing in newly created settlements create a demand for bushmeat and engage in poaching themselves as well.

It is likely that the influx of Chinese companies in recent years has been an indirect driver for the surge in jaguar trafficking in Bolivia and Suriname, both through opening up previously inaccessible wilderness territory and providing new sources of consumer demand. The Chinese people known to be involved have well-established private businesses in the countries concerned. There are signs that sophisticated networks are driving the procurement and trafficking; jaguar source countries cannot afford to be complacent in addressing these crimes as there is a real risk of extinction.

Bolivia has been proactive in intercepting shipments and prosecuting those involved in the illegal jaguar trade. Suriname, by contrast, appears to be underestimating the seriousness of the situation and should urgently ramp up enforcement efforts to identify and bring to justice key culprits. Both countries would benefit from technical and/or financial support, toward disrupting criminal networks and raising awareness among key audiences.

RECOMMENDATIONS

Based on this analysis the following recommendations were made to IUCN NL:

Recommendations for Bolivia

1. In coordination with existing NGO efforts, engage the Bolivian government (including central Dirección General de Biodiversidad y Áreas Protegidas (DGBAP) and key regional governments such as the Department of Santa Cruz) to assess their needs for financial or technical support to enhance implementation and enforcement of Bolivia's wildlife protection laws. Focal areas could include: 1) supporting the development of a multi-agency action plan to curb wildlife poaching and trafficking; 2) supporting collaboration with

neighbouring countries to curb smuggling across the land borders; and 3) supporting awareness raising campaigns targeting key audiences, taking on board lessons learned elsewhere with regard to environmental education, e.g. by IUCN's Commission for Education and Communication.

2. Engage NGOs and the government to support ongoing efforts to counter jaguar trafficking, based on an assessment of where support is most needed and in what form. Such support could include, for example: 1) research and provision of intelligence on key individuals involved in jaguar trafficking for follow-up by Bolivia's investigative and prosecution bodies; 2) awareness raising of local communities targeted by Chinese traffickers; 3) engaging the Chinese embassy in Bolivia; and 4) recruiting members of the Chinese elite in efforts to discourage trafficking by Chinese residing in Bolivia.
3. Engage academics in Bolivia and consider supporting research to quantify the illegal trade in bushmeat and live animals, nationally or for biodiversity-rich parts of the country that are known hotspots for wildlife poaching and trade.
4. Support innovative grassroots initiatives to monitor and address wildlife crime.
5. Encourage the government to seek funds for the United Nations Office on Drugs and Crime (UNODC) to conduct a Wildlife and Forest Crime Analytic toolkit assessment that would analyse administrative, preventive and criminal justice responses to wildlife and forest crime and related offences and make recommendations for improving these.¹

Recommendations for Suriname

1. Support academic research to assess populations of keystone wildlife species in Suriname believed to be threatened by unsustainable and/or illegal exploitation. These include cat species (jaguar, puma, jaguarundi), the harpy eagle, and giant otters.
2. Engage the government (including the Ministry of Ruimtelijke Ordening, Grond- en Bosbeheer (RGB) and the Ministry of Justice and Police) and key NGO and private sector stakeholders to establish a collaboration on tackling serious wildlife crime in the country. The collaboration could focus on the following elements:
 - a. Strengthening law enforcement, focusing on mutually agreed priority issues. Financial and technical support is required for intelligence-led investigations of key traffickers as well as to conduct targeted controls at key infrastructure nodes such as roads leading to the city, the Zorg en Hoop airport for domestic flights and Johan Adolf Pengel Airport for international flights. The Nature Conservation Division and the police force should be encouraged to collaborate in complex investigations, in order for the Nature Conservation Division to benefit from the police's investigative skills.
 - b. Strengthening collaboration with Guyana and French-Guiana and developing a regional approach to tackling the systematic cross-border smuggling of wildlife. As a matter of priority, Suriname and Guyana should endeavour to harmonise export quotas and free on board (FOB) prices to discourage smuggling. Regular checks of known border crossing points and wildlife markets in the border areas of the three Guianas should be conducted.
 - c. Sensitising the judiciary (prosecutors and judges) and raising awareness of the importance of fighting wildlife crime and the need for adequate prosecution and sentencing of key traffickers who currently enjoy impunity.

d. Launching a consumer awareness programme for select target audiences, including:

- i. Chinese buyers of jaguar parts in Suriname, e.g. through engaging members of the local Chinese political and business elite;
- ii. Hunters and others frequenting the interior known to be involved in jaguar killing;
- iii. Indigenous communities known to be involved in jaguar killing.

3. Support grassroots NGOs/initiatives in monitoring/addressing wildlife crimes and other illegal activities detrimental to Suriname's biodiversity and the local communities depending on it.

4. Consider supporting the Surinamese government to develop a science-based strategy for developing sustainable, economic alternatives to diminish the trade in bushmeat and live animals. This strategy, formulated in consultation with all relevant stakeholders, should balance the need to safeguard the livelihoods and food security of indigenous communities and the need to conserve wildlife species, both for future generations and for Suriname's tourism industry which depends on healthy populations of iconic species. The strategy should take into account lessons from other countries² and showcase the long-term benefits of protecting Suriname's wildlife for Suriname's economy and society as a whole.

5. Encourage the government to seek funds for the United Nations Office on Drugs and Crime (UNODC) to conduct a Wildlife and Forest Crime Analytic toolkit assessment that would analyse administrative, preventive and criminal justice responses to wildlife and forest crime and related offences and make recommendations for improving these.³

6. In all of the above, identify initiatives and innovations that have been successful elsewhere and which could be replicated in Suriname.

ACTIONS TAKEN BY IUCN NL

Since the report was completed in March 2018, IUCN NL has taken action to advance some of the recommendations. For example, in coordination with existing NGO efforts, there has been engagement with the Bolivian government (key regional governments such as the Department of Santa Cruz) to assess their needs for financial or technical support to enhance the implementation and enforcement of Bolivia's wildlife protection laws. There have additionally been some moves to support and encourage "on the ground" actions to tackle jaguar trafficking.

Beyond the report's original conclusions, IUCN NL considers the following areas as potential for further collaborative exploration and perhaps action:

1. Establish binational alliances to combat the issue;
2. Use existing transboundary governance structures such as ZICOSUR⁴ to coordinate cooperation and action at the level of regional and municipal authorities.

These two areas are in line with the London Conference on Illegal Wildlife trade conference, held in October 2018.⁵ The fact that this expert conference urgently called attention to Latin America gave the issue of wildlife crime in this region more international importance. This report aims to take first steps to address that call by enhancing the understanding of the issue.

1. INTRODUCTION

The Amazon rainforest spans an area of some 5,500,000 km², covering most of the Amazon basin in South America (7,000,000 km²). This unique ecosystem represents over half of the planet's remaining rainforests and comprises the largest and most biodiverse tract of tropical rainforest in the world. The region is home to about 2.5 million insect species, tens of thousands of plants, and some 2,000 bird and mammal species. The Amazon rainforest stretches across eight countries: Bolivia, Brazil, Ecuador, French Guiana, Guyana, Peru, Suriname and Venezuela.

It is well known that the Amazon is threatened by mining, oil exploration and logging - both legal and illegal - predominantly for the timber and agricultural industries. Far less is known about poaching and trafficking of Amazon wildlife species, many of them endemic. Wildlife poaching and trafficking pose a serious threat to the species concerned and to the ecosystem they belong to (particularly in case of keystone species), as well as to local communities dependent on wildlife for their livelihoods, national economies, and to the rule of law. There are indications that mining and infrastructure development accelerate wildlife trafficking by opening up the rainforest, creating easy entry and exit points and introducing an influx of people who demand bushmeat and/or engage in poaching.

Occasional news reports and small-scale studies have raised the alarm, but to date few efforts have been undertaken to understand the scale and nature of the illegal wildlife trade in the Amazon. The existing information gap may be a key reason why the issue is low on the agenda of most governments and NGOs - compared to the attention afforded to the poaching and illegal trade in African and Asian species such as elephants, rhinos and pangolins.

1.1 OBJECTIVES AND SCOPE

There is a need to improve the knowledge base on wildlife poaching and trafficking in the Amazon, to raise awareness, increase the sense of urgency, and spur relevant stakeholders into taking action to address the threat both in and from this region. IUCN NL thus commissioned EcoJust to conduct an assessment of wildlife poaching and trafficking in Bolivia and Suriname.

Bolivia and Suriname were selected as focal countries for the assessment due to their perceived representativity of the wider Amazon and several years of IUCN NL engagement in the country. Where possible the research takes into account relevant observations and links with other countries, both in the region and beyond.

The project aimed to compile and analyse information of wildlife poaching and trafficking in Bolivia and Suriname through research and interviews. The focus was to identify the main species targeted, trafficking routes and main destinations and the drivers for the poaching and trafficking. An attempt was also made to assess the impact of foreign investment on wildlife crime in the focal countries.

The project forms part of a larger campaign on illegal trade networks related to foreign investments in the Amazon. The assessment focused on wild fauna species protected by CITES and/or national legislation. The illegal extraction of plants and timber was not included.

1.2 METHODOLOGY

Information was gathered between December 2017 and February 2018 using the following methods:

Open source research of Spanish, English and Dutch language internet and academic resources to garner information on legal and illegal wildlife trade in and from Bolivia and Suriname.

Wildlife crime incidents database: To understand which species are targeted, and where and how they are trafficked, open source research was conducted to collect information on wildlife crime incidents, including both domestic incidents and seizures of illegal wildlife species from Bolivia and Suriname intercepted from national and international trade. The search focused on English and Spanish websites for Bolivia, and English and Dutch websites for Suriname (Dutch is Suriname's official language and seizures of Surinamese wildlife species frequently occur in The Netherlands). The incident reports were included in a database to facilitate analysis. An extract of this data set which includes key information on dates, locations, species and quantities seized can be found in Annex 1.

This approach has necessarily resulted in an incomplete picture since many wildlife crime incidents are never reported to the media. It is also likely that not all media reports were identified. Moreover, for the US - an important destination for birds and reptiles from Latin America - only seizures from 2003-2013 were recorded due to the fact that the [source](#) for these seizures records (an online

platform developed by TRAFFIC) does not contain data post-2013. These gaps are likely to skew the seizure analysis.

A field mission to Suriname was conducted from 24 February - 3 March 2018. Interviews were held with representatives of NGOs, a wildlife trader, an academic expert and others knowledgeable about wildlife poaching and trafficking in Suriname. The Suriname Forest Service, the responsible government department, declined to respond to a request for an interview.

Interviews (oral and written) were also conducted remotely with NGO staff, government officials, academics and independent researchers, in particular for Bolivia.

1.3 CONTENTS OF THIS REPORT

Section 2 provides an introduction to illegal wildlife trade issues in the Amazon and the impact of infrastructure development on indigenous communities, natural habitats and the wildlife species dependent on them. Sections 3 and 4 present the main findings for Bolivia and Suriname respectively. Each starts with an overview of the legal wildlife trade and the relevant legal framework, followed by a brief discussion of significant wildlife crime incidents identified through open source research and a more in-depth analysis of key wildlife crime issues. Annex 1 provides the wildlife crime incidents database compiled.

2. WILDLIFE POACHING AND TRAFFICKING IN THE AMAZON

The extraordinary biodiversity of the Amazon Basin makes it vulnerable to wildlife poaching and trafficking. Yet information about the nature and impact of the illegal wildlife trade in this region is sparse and fragmented. Brazil's Institute of Environment and Natural Resources - probably the most comprehensive data source - estimates that some 12 million wild animals are caught illegally each year in that country alone. These are primarily birds, as well as monkeys, turtles and jaguars, among others.⁶

Historically the wildlife trade in Latin America served pet markets, predominantly in the US and Europe. In the last decade, however, a huge market for live birds and reptiles has emerged in Asia. There are significant domestic pet markets as well. In many countries in Latin America, keeping local animals - parrots, monkeys and turtles - is a longstanding tradition. In parts of Brazil, tamed wild animals are called *xerimbabos*, which means "something beloved". In surveys, 30% of Brazilians and 25% of Costa Ricans said they had kept wild animals as pets.⁷

The illegal trade in live animals is associated with immense suffering. Animals taken from the wild are smuggled in thermoses, nylon stockings and even underpants, stuffed into toilet paper tubes, hair curlers and hubcaps. For each individual that is purchased as a pet, an estimated 8 to 10 animals die in the process of capture and transport to market.⁸

Other markets for the Amazon's wildlife include the domestic consumption of bushmeat and turtle eggs and the use of crocodile parts and products in the international leather industry. In the last decade,

the emerging new threat has been the trafficking of jaguar parts to China.

2.1 EXAMPLES OF SPECIES AT RISK FROM POACHING AND TRAFFICKING

2.1.1 Parrots

The global trade in parrots is huge: since 2003 nearly one third of the world's 330 parrot species are considered endangered, due to poaching and habitat loss. In Latin America the number of birds trafficked internationally is dwarfed by the number poached for domestic markets. Research in Bolivia, Mexico and Peru has revealed a burgeoning illicit trade in New World parrots⁹ for domestic markets. Rural people capture the birds for sale at open air markets, often taking infant birds from nests.

Illegal international trade also occurs. Many Latin American countries have national export quotas and restrictions on the export of parrot species. Brazil, for example, does not permit the export of wild parrots, creating an incentive for smuggling. The trafficking of parrots from Mexico to the US has been noted,

while seizures in Portugal and Spain attest to the trafficking of parrots from Latin America to Europe. INTERPOL's 2012 "Operation Cage" was launched in response to the trade of captive-bred and wild birds and eggs transiting from Latin America to Europe.¹⁰

Some species of parrots have been brought to the brink of extinction by the illegal trade. For example, the Lear's Macaw (*Anodorhynchus leari*) was selling for US\$ 90,000 a head in 2008. As a result the global population has dropped to under 1,000.¹¹

2.1.2 Jaguars

Like most other big cat species around the world, wild populations of jaguars have been greatly diminished in the last century. Jaguar populations are threatened by habitat loss and fragmentation, killing for trophies and illegal trade in body parts, proactive or retaliatory killings associated with livestock depredation, and competition for wild meat with human hunters.¹² Estimates of the remaining jaguar population range from about 130,000-208,000 animals.¹³

In the last year conservationists have raised the alarm about a surge in the trafficking of jaguar parts across range countries in Latin America to feed demand in China.¹⁴ Countries known to be affected include Belize, Bolivia, Brazil, Peru¹⁵ and Suriname. Apart from Bolivia, where significant amounts of jaguar parts (predominantly canines) have been seized and several individuals prosecuted for illegal trade, not much is known yet about the nature and scale of this emerging trend. The situation in Bolivia and Suriname is discussed in Sections 3 and 4, respectively.

2.1.3 Vicuñas¹⁶

Fifty years ago, with a global population of 10,000 individuals, the vicuña was threatened with extinction by exploitation of its valuable fibre and

the lack of population management. Concerted conservation efforts have, however, led to its recovery and today a population of 500,000 inhabits Argentina, Bolivia, Chile, Ecuador and Peru.¹⁷

But vicuñas are increasingly targeted by poachers. Approximately 5,000 were found dead from 2010-2015, skinned and stripped of their fur to supply an illicit international trade. Experts believe these official figures are just the tip of the iceberg as vicuñas inhabit areas that are exceedingly difficult to patrol.

Poachers will turn their guns on anyone who tries to interfere. In January 2015, two Chilean police officers were killed at the Peruvian border when they stopped vicuña traffickers and a Bolivian government employee active in the fight against vicuña poaching was found murdered. Experts are struggling to uncover basic facts about the recent wave of killings, including who is to blame, where illegal vicuña fibre and products wind up and what is the risk to conservationists. While some rural people likely turn to illegal hunting as a way to supplement their income, in other cases gangs with possible ties to cocaine trafficking are implicated. In Argentina, drug groups from Bolivia are purportedly paying their way with illegal fibre from vicuñas.

Illegal products are primarily sold locally. In 2012 a market survey carried out in El Alto, Bolivia found 166 vendors illegally selling 365 kg of processed and unprocessed vicuña fibre; over 345 kg of vicuña blankets; and numerous scarves, ties and head scarves. China may also be a destination for illegal vicuña wool. That connection has not yet been officially established, although the market for vicuña products — known in Chinese as "camel horse" — is growing.

At present smuggling is easy for poachers. Borders are permeable, and customs agents who do take the time to carry out inspections often have difficulty distinguishing between products originating from llama, alpaca and vicuña. If criminals are caught, laws to prosecute them are lax.

2.1.4 Andean bears

Andean bears (*Tremarctos ornatus*) - also known as "spectacled bears" - occur in six Latin American countries, from Argentina to Venezuela. They are often illegally killed as a livestock nuisance and to meet the demand for bear parts on local black markets. Andean bears are listed on Appendix I of CITES and as "vulnerable" on the IUCN Red List. IUCN has cautioned that they "are among the carnivores that are most likely to move toward extinction."¹⁸

A study by Judith Figueroa of the University of Alicante in Spain found parts and products of the Andean bear for sale in every country where they live. Her 2014 report, "*Tráfico de partes e individuos del oso andino Tremarctos ornatus en el Perú*", demonstrates the ubiquity and breadth of commercial products containing bear parts. In Peru, bear parts were found illegally for sale in 27 markets in 14 different regions. Their parts are commonly used for alternative medicine, including magic by healers, for food, and as an aphrodisiac. Many items represent deeply rooted historical traditions such as those practiced by Inca people centuries ago. Body parts are sold as amulets in northern areas like Venezuela to ward off evil spirits, and in Bolivia they sell tongue bones as talismans.¹⁹

Bear gall bladders are valued in traditional Asian medicine and can fetch a high price on the international market: recent estimates put the price at US\$ 150 for one, which is five times the average monthly wage in Ecuador. There is also a large market for bear paws. Considered a delicacy by East Asians, one paw yields US\$ 10-20.²⁰

2.2 THE IMPACT OF INFRASTRUCTURE DEVELOPMENT IN THE AMAZON

The impacts of poaching and illegal wildlife trade are exacerbated by habitat loss and fragmentation. Road expansion into new areas of the Amazon - a major cause of this process - is driven by the development of infrastructure for trade and transportation, as well as the search for valuable materials for extraction, including timber, minerals and oil. This development also results in an increase in wildfires.

Dams are another major driver of ecological decline. At the time of writing, 416 dams were operational or under construction in the Amazon, and a further 334 dams were planned or proposed.²¹ Scientists have warned that this "dam building binge" will shred the Amazon's ecosystems by interfering with fish spawning and holding back sediments and nutrients that nourish the Amazon basin. Two other threats—climate change and the deforestation that accompanies road building during dam construction—could amplify the severity of ecological deterioration.²²

Infrastructure development is further known to fuel wildlife poaching and trade. A 2015 article in Mongabay discusses the impact that transport infrastructure created by oil companies has had on Ecuador's bushmeat and wildlife trade.²³ It relates how oil companies build extensive road systems to service drilling operations. They often offer gifts of vehicles, canoes, outboard motors and guns to Indigenous people, enabling more efficient hunting - including for bushmeat. Studies in Ecuador show that roads create exposure to a market economy, upsetting the equilibrium that exists in indigenous cultures. As hunting becomes a commercial pursuit, wildlife populations quickly plummet. A 2012 study of the Maxus road in Yasuni National Park revealed new indigenous settlements along the road and a shift of Waorani hunters from sustainable practices to unsustainable commercial hunting. Both prey

and predator wildlife species numbers dropped precipitously near the oil road.

Infrastructure also facilitates the harvest of live animals to supply extensive domestic and international markets. Some researchers consider this trade as a by-product of the bushmeat trade. According to Ecuador's Ministry of Environment, nearly 8,000 wild animals were rescued from trafficking between 2003 and 2013 and sent to rehabilitation centres in Ecuador. The largest numbers of live animals illegally traded for pets were reptiles, followed by mammals and birds.

It is highly likely the same dynamics are at play in other Amazon countries rich in oil, gas or other natural resources. Sections 3.3.6 and 4.3.6 reflect on this issue for Bolivia and Suriname, respectively.

Below are two aerial images taken in the same place, in 1975 and 2000. The first photo, in then-remote eastern Ecuador, shows expansive intact rainforest in every direction around a newly established oil well with its access road. The second photo depicts the deforestation resulted when a vulnerable ecosystem is not protected from uncontrolled access. Such extensive deforestation in the Amazon eliminates up to 100,000 species per hectare.



© Instituto Geografico Militar. Source: Mongabay: <https://news.mongabay.com/2015/10/oil-roads-to-ecological-ruin-ecuadors-bushmeat-and-wildlife-trade/>



3. PLURINATIONAL STATE OF BOLIVIA

3.1 INTRODUCTION

Bolivia is one of the most biologically diverse countries in the world. Its location in the tropics combined with dramatic variations in topography and climate result in a wide range of ecosystems—from the mountain landscapes of the Andes to the rainforests of the Amazon to the unusual dry forests of the Chaco. Particularly notable is the diversity of birds: the country boasts more than 1,400 species ranging from the macaws of the rainforest to the Andean condor. Bolivia has designated more than 17% of its land as protected areas.²⁴

Vertebrate endemism is high: 16% of the mammals, 22% of fish, 20% of reptiles and 42% of birds are endemic to Bolivia. The country has more than 14,000 higher plant species, 325 mammals, 186 amphibians, 260 reptiles, and 550 fish species, and 1,379 bird species.²⁵

More than half of Bolivia's 11.3 million people are indigenous, divided over dozens of ethnic groups. While poverty in rural areas has fueled an ongoing migration to cities, many Bolivians still live a rural life, farming or raising livestock. More than 1.5 million rural people live in or near the country's protected areas.²⁶

Bolivia is also rich in non-renewable resources. Strong growth attributed largely to natural gas exports to Argentina and Brazil has enabled significant public spending. Yet the country remains one of the least developed in Latin America due to a poor business climate and state intervention in the economy that deters investment and private sector growth. High commodity prices between 2010 and 2014 sustained rapid growth and large trade surpluses. However, the global decline in oil prices from late 2014 negatively

impacted Bolivia's revenues for exported gas, resulting in lower GDP growth, losses in government income, and fiscal and trade deficits.²⁷

A lack of foreign investment in the key sectors of mining and hydrocarbons, along with conflict among social groups, pose challenges for the Bolivian economy. In 2015, in an attempt to improve the investment climate, President Evo Morales expanded efforts to attract international investment and boost Bolivia's energy production capacity.²⁸

This move was welcomed by China. Chinese companies have significantly increased their presence in Bolivia in recent years, particularly active in the energy and transport infrastructure and mining sectors. However, as with Ecuador and other regional neighbours, much of China's investment in Bolivia remains focused on the extraction and transport of raw materials, helping to lock in the "resource curse".²⁹ According to data from the Bolivian Institute of Foreign Trade, China is the largest exporter to Bolivia, accounting for around 18% of the country's total imports. It is also the fifth-largest destination for Bolivian exports, mostly raw materials and minerals.³⁰

The presence of organised crime is high in Bolivia. The country is the world's third-largest cultivator of coca and its third largest cocaine producer. It serves as a transit country for Colombian and Peruvian cocaine destined for Argentina, Brazil, Chile, Paraguay and Europe. Border controls are weak and there is some related money-laundering activity.³¹

3.2 LEGAL WILDLIFE TRADE

A UNEP-WCMC analysis of Bolivia's legal CITES trade data³² shows that between 2005 and 2014:

1. The most highly traded commodity from Bolivia was spectacled caiman skins, tails, meat and skin pieces, the majority of which are wild-sourced. Italy was the main import market, followed by Spain and Mexico;
2. Wild-sourced timber, comprising Spanish cedar (*Cedrela odorata*) and big-leaf mahogany (*Swietenia macrophylla*), was also a key export of the country, with the US accounting for over half of all imports;
3. Vicuña fibre was also an important export from Bolivia, key importers being Italy and Argentina.

There have been no reported exports of spectacled caiman or arapaima (*Arapaima gigas*) meat since 2007, of various species of peccaries since 2008 and of mahogany since 2012. In 2011 Bolivia set a zero export quota for mahogany, following concerns over the sustainability of this trade. It is unclear whether vicuña and spectacled caiman have been legally exported since 2015, as Bolivia's last biennial report to CITES was for 2014-2015.

The estimated average annual value of Bolivia's CITES exports between 2005 and 2014 was US\$ 20.5 million. The products with the highest total estimated value were timber, specifically big-leaf mahogany (US\$ 7.9 million per year) and Spanish cedar (US\$ 6 million per year).

3.2.1 Legal framework

Bolivia declared a total ban on the capture, conditioning, commercialisation and export of wild animals, their by-products and secondary products in *Decreto Supremo* 21312 of 27 June 1986. This ban was further refined by subsequent decrees, including *Decreto Supremo* 22641 in 1990 and *Decreto Supremo* 25458 in 1995. *Decreto Supremo* 25458 confirmed all the restrictions with regard to native wildlife but provided an exception for activities authorised by the national environmental authority, following submission of technical documentation which proves the intended activity will not harm the natural population of the species involved. Since then, only caiman and vicuña have been allowed to be traded, nationally and internationally.

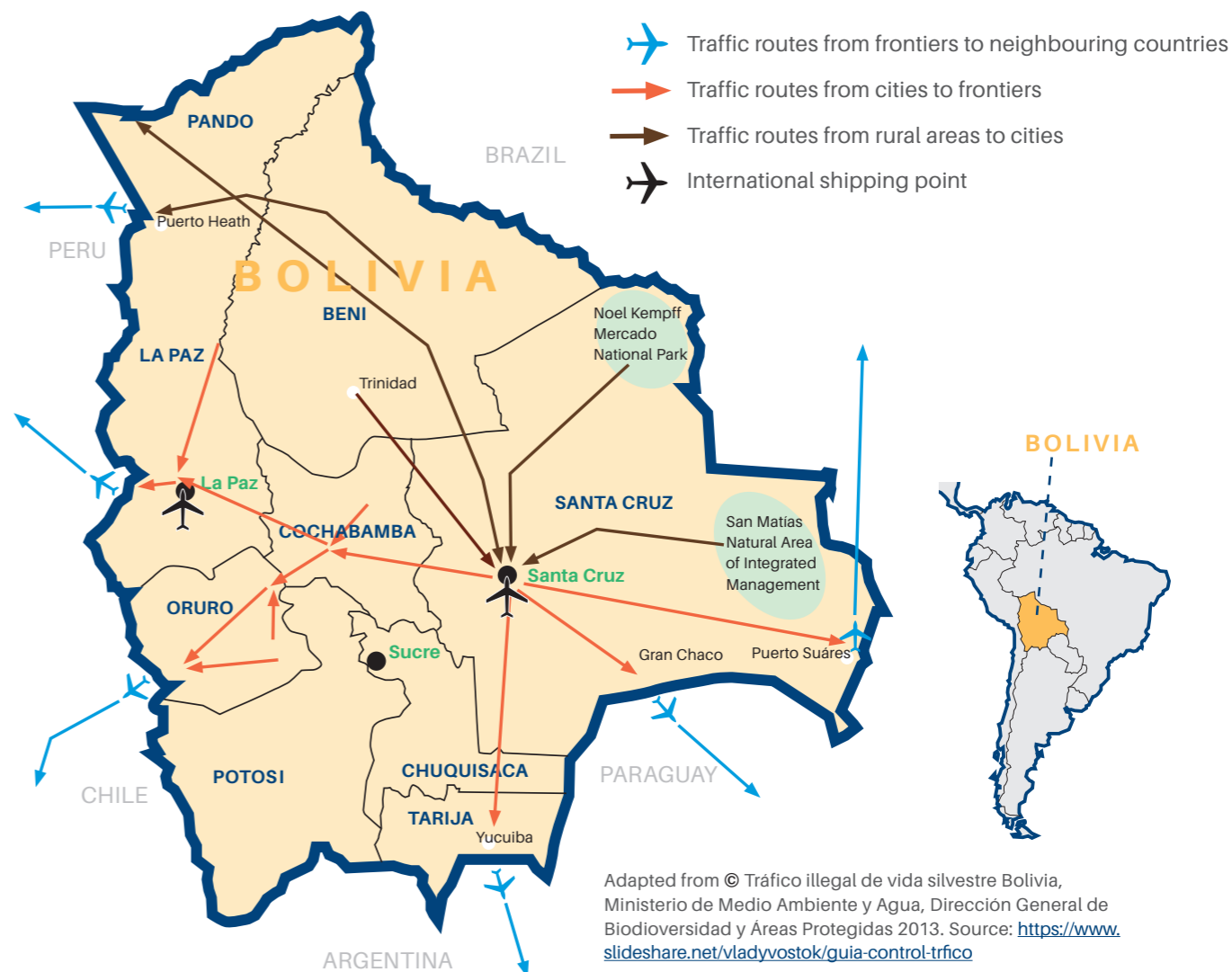
In 2016, *Decreto Supremo* 3048 came into force, tightening the rules for wildlife trade. Article 10 creates an exception to the general trade ban if: a) the trader can prove the specimens involved come from activities of sustainable use and/or wildlife management and the use of the species will not put the wild population at risk; b) it is based on authorised national quotas; and c) based on a Non-Detriment Finding Report for CITES-listed species. The trade in caiman and vicuña was once again authorised based on this decree.

The Bolivian Environmental Law (Ley 1333 of 27 April 1992) sets out the general framework for protection of the (natural) environment. A key provision is Article 106, which declares that crimes against the environment are penalised by Article 223 of Bolivia's Penal Code, provides a 1-6 year prison sentence. Article 44 of Ley 300 (Law of Mother Earth and Integral Development for Living Well), which came into force in 2012, stipulates that in the case of crimes related to Mother Earth the prison sentence must be served. Moreover, for recidivists the sentence is increased by one third of the maximum penalty.

3.3 ILLEGAL WILDLIFE TRADE

Bolivia's rich and unique biodiversity has been the target of wildlife traffickers for many decades. Soon after Bolivia joined CITES in 1979 and many of its species became protected by international law, the country saw a major emergence of illegal wildlife trade. At CITES' Fifth Conference of the Parties in 1985, other Latin American countries expressed concern about the depletion of their wildlife resulting from Bolivia's "ever-growing and destructive illegal trade". CITES even imposed trade sanctions, which caused Bolivia to take measures to ensure proper implementation.³³ Faced with heavy international criticism for its corrupt wildlife trade practices³⁴ and failure to comply with CITES, Bolivia banned export of all wildlife in 1986.³⁵

Unfortunately, the export ban and subsequent decrees - which introduced a general prohibition for capture and trade of native species - have not been enough to stop illegal export of Bolivia's protected wildlife species. Wildlife smuggling occurs across all the borders that Bolivia shares with Argentina, Brazil, Chile, Paraguay and Peru. Bolivia is both a source and a destination for wildlife specimens from neighbouring countries and is also believed to be a transit country. For example, several researchers believe that Bolivia functions as a bridge for illegal wildlife trade between Brazil and Peru.³⁶ This cross-border trafficking mainly concerns live specimens destined for the pet trade and parts and products for consumption, traditional use or religious festivals.



3.3.1 Analysis of wildlife crime incidents

An analysis of wildlife crime incidents implicating Bolivia as a source, destination or transit country (see Annex 1) provides the following insights:

Jaguar trafficking

The seizure information shows a significant rise in jaguar trafficking since 2012, with seizures occurring both in inland locations and in the Bolivian postal system. Twenty-four cases were identified between 2009 and January 2018. Twenty-two cases occurred in Bolivia, one in the US (seizure of a skull in 2012) and one at Beijing airport (119 canines and 13 claws in March 2015). The surge in jaguar trafficking appears to be driven almost entirely by Chinese demand. Of the 22 Bolivian cases, 17 cases involved Chinese individuals, and five cases Bolivian citizens. The seizures also show China as the main destination for jaguar parts. Between 2014 and 2016 a series of mail packages with jaguar canines and other parts addressed to people in China was intercepted at the airport by Correos de Bolivia. In March 2015, Beijing Customs arrested a Chinese businessman with an enterprise in Bolivia for attempting to smuggle 119 jaguar canines and 13 claws into China. The man was sentenced to four and a half years prison and a fine.

An extrapolation of seized specimens and parts suggests that at least 324 jaguars were involved in these 24 cases (two alive and 322 dead). It is unclear whether the jaguars were all sourced within Bolivia, or whether parts are also smuggled from neighbouring countries, with Bolivia serving as a transit point.

Illegal bird trade

Significant seizures of live birds were reported in domestic pet markets. Species seized predominantly concern parrots, parakeets and macaws (*Psittacines*). As recently as 26 February 2018, authorities in Santa Cruz - a hub for the illegal bird trade - seized 150 birds, including blue and yellow macaws

(*Ara ararauna*) and toucans. Songbirds appear to be in trade as well, judging from a case in January 2018, where 581 saffron finches (*Sicalis flaveola*) from Peru were seized on the Peru-Bolivia border. Most of the birds had died during transport, with fewer than one in five still alive. Apart from this seizure and another incident in 2017 when two parakeets from Bolivia were seized on a bus in Chile, all recorded bird seizures occurred inside Bolivia.

Box 1. Successful prosecutions

In November 2018 Chinese citizens Li Ming and Yin Lan were sentenced to four and three years in prison respectively, for the trafficking of animal parts. The pair was arrested in their restaurant on 23 February 2018. In the raid, police confiscated 185 jaguar fangs, one jaguar skin, one African leopard skin, three other feline skins, two rattle snakes, 11 ivory statues of Chinese idols, three marsh deer (*Blastocerus dichotomus*) and one giant armadillo claw (*Priodontes maximus*). Also confiscated were a loaded .22 caliber pistol and a large sum of both domestic and foreign currency. For the Vice Ministry of the Environment, the ruling marks a precedent in the protection of biodiversity. Their lawyers announced the intent to seek more severe penalties for such cases in future.

Franco Bertón, <https://es.mongabay.com/2018/11/sentencia-trafficantes-colmillos-de-jaguar-bolivia/>, 13 November 2018. Information received between completion of research and report publication.

Spectacled caiman trafficking

The seizure data show persistent trafficking of skins, skin pieces, tails and products of spectacled caiman, with the US a likely key destination. A remarkable seizure took place in Bolivia in April 2013 when 4,936 baby caimans wild-caught in the Pantanal marshlands were seized from a truck on the road to Santa Cruz, along with 511 skins. The drivers claimed that they were headed for Crocoland in Santa Cruz - Bolivia's only licensed caiman captive breeding facility - but Crocoland reportedly denied this³⁷ In December, 1,900 of the baby caimans were returned to the wild; the rest had died.³⁸

This seizure probably represents a tiny fraction of the actual level of illegal trade. Renctas, a Brazilian NGO, estimates that one million caimans are illegally captured in the Pantanal every year. In the Amazon region, illegal hunters kill thousands of caimans every month. The skins are taken to neighbouring countries where they are processed in tanneries, have their features changed, are provided with false documentation, and are subsequently exported to the international market.³⁹

Parts and products of other reptiles were also seized in domestic markets, including tortoises, river turtles, snakes, boas, vipers, and Andes tree iguanas (*Liolaemus andinus*).

Bushmeat trade

Several seizures attest to the fact that there is a local market for parts and products of mammals including deer, foxes, cat species, monkeys, armadillos, anteaters as well as owls and birds of prey, for use in religious festivals. Meat - including tapir, monkeys, capibaras and armadillos - was also seized on a number of occasions.

3.3.2 Illegal jaguar trade

The jaguar is the only member of the *panthera* family in the Americas and is by far the biggest cat on the continent. The Worldwide Fund for Nature (WWF) estimates there are only around 15,000 jaguars left in the wild. The jaguar is listed on CITES Appendix I and is classified by IUCN as 'near threatened'.⁴⁰ Today there are an estimated 2,000-3,000 jaguars left in the wild in Bolivia.⁴¹ Numerous recent journalistic and academic reports highlight a surge in jaguar trafficking in Bolivia, confirmed by the seizure information collected for this assessment.

Chinese involvement

Evidence shows that since 2013, Chinese individuals living in Bolivia have started buying jaguar parts (fangs in particular) and smuggling these to China, sometimes helped by Bolivians. Adverts aired on local Bolivian radio stations, as well as posters, flyers etc. distributed in rural areas, have requested jaguar parts for sale. Chinese individuals were sending large quantities of jaguar parts to China through the mail. Between 2014 and 2016 the Bolivian postal service, Ecobol, discovered 300 jaguar products in 16 shipments, all destined for China. Fourteen of these were sent by Chinese citizens working in Bolivia.⁴²

Several government agencies responsible for wildlife protection have stepped in to address the emerging threat. The Dirección General de Biodiversidad y Áreas Protegidas of the Ministerio Medio Ambiente y Agua has led the charge and instigated 14 criminal proceedings against eight Chinese citizens and two Bolivians. Criminal charges were brought against a Bolivian woman who encouraged the hunting of jaguars through social media, and against two people who promoted the sale of wild animal parts on the radio and offered money in exchange for "tiger fangs."⁴³ Apart from the two cases noted in Box 2, which received a lot of media attention, it is unclear whether these prosecutions have resulted in sentences.

Bolivian media have suggested that the surge in jaguar trafficking is related to the recent influx of Chinese companies involved in large development projects by the Bolivian government, on the back of major Chinese investments in and lending to Bolivia.⁴⁴ Ángela Núñez, a biologist specialising in wildlife conservation and management, has alerted the international media of her belief that - due to the growing trade links between Bolivia and China - a large number of Chinese citizens are promoting illegal jaguar hunting and creating illegal trafficking networks.⁴⁵ In the period between completion of the research for this report and publication, several interviews were conducted with hunters working in Trinidad. The hunters reported demand expressed by migrant labourers working on the Trinidad-San Ignacio de Moxos road, a project executed by a Chinese company.⁴⁶

The authorities in Santa Cruz acknowledge that wildlife crime cases in their region have increased with the presence of Chinese construction companies. However they state that they have no evidence relating these to wildlife trafficking.⁴⁷

Reduced availability of tiger parts in Asia, combined with growing demand in East and Southeast Asia and the increased Chinese presence in Latin America, may have come together to create a “perfect storm”, resulting in the surge in jaguar trafficking to China. This is reminiscent of the ivory and rhino horn poaching crisis in sub-Saharan Africa. Rapidly increasing demand in China inspired Asian nationals in Africa to set up sophisticated schemes to traffic ivory and rhino horn to East and Southeast Asia, taking advantage of weak governance, corruption and poverty. Within a decade, African elephant and rhino populations were decimated by systematic, industrial-scale poaching. This analogy should serve as an example for the speed at which a species can be brought to the brink of extinction once a consumer market opens in Asia for their parts.

The profit margins certainly provide incentive: jaguar canines sell for around US\$ 100-200 apiece in Bolivia, while a large canine can be sold for over US\$ 1,500 in China and Vietnam, where they are used in jewellery. Some believe jaguar canines are sold in Asia as a substitute for tiger canines, as wild tiger populations have dwindled in recent decades.

Box 2. Cases of Chinese smuggling

1. In December 2014 police raided the home of Yan Yixing, a Chinese national known locally as Javin. They found jaguar heads and 300 canines and further evidence of jaguar trafficking on his computer. He remained free on bail for three years after his arrest, his trial having been delayed several times. In September 2017 the trial finally proceeded. He was convicted and is now filing an appeal.¹
2. In May 2016 a sting operation conducted in by the forestry police (Pofoma) and Madidi park rangers found a Chinese citizen, Jian Fang Xiao, in possession of seven jaguar fangs. Jian Fang Xiao was in preventive detention for a year in a small prison in Rurrenabaque, but was later reportedly released to house arrest.²

1. Rachael Bale, On the Trail of Jaguar Poachers, National Geographic December 2017, <https://www.nationalgeographic.com/magazine/2017/12/on-the-trail-of-jaguar-poachers/>. Accessed 19 February 2018.

2. Personal communication with Elizabeth Unger.



Jaguar fangs found in mail parcel to China. © Ecobol, Bolivia



Jaguar skull and canines. © Clovis de la Jaille

On 15 January 2018, the Chinese embassy issued a warning to its citizens in Bolivia not to participate in illegal wildlife trade, noting that jaguar trafficking is strictly forbidden in both countries. This was in direct response to concerns raised in Bolivian and international media (referred to in the warning) about the role of Chinese residents in Bolivia in trafficking jaguar parts.⁴⁸

It is unclear whether the increased awareness and efforts by the government have led to a reduction in trafficking. Ecobol did not seize any parts from mail packages in 2017, compared to 11 parcels intercepted in 2016. Given the profitability of the business and the sophistication of the trafficking networks it must be assumed that the trafficking continues unabated, yet less openly and using different routes and methods.

Conflict animals or targeted hunting?

Some researchers believe that a significant proportion of the jaguar parts trafficked in recent years originate from animals killed as a result of human-wildlife conflicts. If this is true, the impact of the illegal trade on Bolivia's jaguar populations may at this point still be relatively limited. For example, Nuno Negrões Soares of the Bolivian Association for Research and Conservation of Amazonian Andean Ecosystems, who studies jaguar-human conflicts, has not yet heard of people going out to poach jaguars for the trade in his research area (Pando department, northern Bolivia bordering Peru).⁴⁹ Similarly, Rob Wallace of the Wildlife Conservation Society (WCS) had not seen evidence of people going out specifically to hunt jaguars for their parts. He concedes, however, that communities or ranchers previously averse to killing jaguars may be newly incentivised by prices in the region of US\$ 500-700: "Of course that changes that dynamic significantly".⁵⁰

Others claim that targeted poaching of jaguars is already occurring in worrying numbers. In late 2017, Ángela Núñez, a biologist who specialises in wildlife conservation and management, estimated that 140 jaguars had been killed to satisfy the demand of Chinese markets, noting that the problem is most apparent in Madidi National Park, in the Department of La Paz. Wálter Andrade Sanjinés, the director of the Forest and Environmental Police of La Paz, who has investigated the traffickers, has found that some hunters go out to trap and shoot the jaguars in the jungle and extract their fangs with knives and pliers brought along for this purpose.⁵¹

Domestic markets

Beyond the emerging international illegal trade, there is also a local market for jaguar parts, which are believed to have medicinal or magical properties. National Geographic photographer Steve Winter found jaguar paws and canines in a local market.⁵² Jaguar skins are furthermore used to manufacture belts, wallets, etc.⁵³

In 2017 WCS and the Whitley Fund for Nature co-organised a meeting with the Bolivian government to develop both a Jaguar Action Plan and a Spectacled/Andean Bear Action Plan.⁵⁴

3.3.3 Illegal bird trade

In the early 1980s Bolivia exported one-third of all parrots from Latin America and 90% of all macaws traded to the US. Concerns about overharvesting caused two of Bolivia's endemic parrot species, the blue-throated macaw (*Ara glaucogularis*) and the red-fronted macaw (*Ara rubrogenys*), to be listed on CITES Appendix I in 1983. Since Bolivia banned all wildlife exports in 1986, other Latin American countries took over the role as key parrot exporter. Today major exporters are Argentina, Guyana, Peru and Suriname, sending birds to key destinations in Asia, Mexico and the US. Europe was also a major importer of live wild birds until the European Union (EU) suspended the imports of live birds in 2005 to prevent the spread of avian influenza.^{55,56}



Brazilian parrot egg smuggler arrested in May 2011 after landing in Portugal. © Divulgação Ibama

International bird trade

According to several respondents, illegal international trade persists in rare and valuable Bolivian parrot species. As early as 1991, researchers reported that since Bolivia's 1986 wildlife export ban, Bolivian birds were being flown out of Argentina.⁵⁷ According to a Bolivian government representative, today rare parrots (nestlings removed from their nests and adults caught with nets) are smuggled by road to Peru from where they are traded to the US and Europe.⁵⁸

Since Europe's 2005 ban on wild bird imports, traffickers have found ways to circumvent controls, mainly by smuggling eggs. For example, Portugal is an important entry point to the EU for illegal parrot eggs from Latin America. In December 2003 Portugal intercepted 3,000 parrot eggs⁵⁹, and between July and October 2011 another 2,000,⁶⁰ the majority reportedly originating from Brazil.⁶¹ Other European countries that have reported significant seizures of parrot eggs include Austria, Spain and Switzerland.⁶²

Alternatively, Bolivian parrots illegally caught in the wild are smuggled to neighbouring countries and "laundered" into legal trade through fraudulent CITES documentation. Since countries such as Argentina and Peru still allow exports of wild-caught parrots, this system for legalising illegally harvested birds is a well-known method used by bird trafficking networks around the world.

Popular species in the illegal international trade include the red-fronted macaw (*Ara rubrogenys*, critically endangered in Bolivia), the hyacinth macaw (*Anodorhynchus hyacinthinus*, considered vulnerable), the military macaw (*Ara militaris*, considered vulnerable) and the blue-throated macaw (*Ara glaucogularis*, endemic to Bolivia and critically endangered). All four subspecies are listed on CITES Appendix I, making commercial international trade strictly prohibited. Also popular are the scarlet macaw (*Ara macao*), red-and-green macaw (*Ara chloropterus*), blue and yellow macaw and the blue-fronted Amazon (*Amazona aestiva*).⁶³



Two hundred parrots trafficked through Cochabamba, Bolivia. © Daniel James, Los Tiempos

Domestic bird trade

Of possibly greater concern than the international trade, given the quantities involved, is the domestic trade in parrots for local pet markets. According to Asociación Armonía, the main centres of illegal bird trade in Bolivia are the cities of Santa Cruz, Cochabamba and El Alto.⁶⁴ Research in the Los Pozos pet market of Santa Cruz de la Sierra in 2004-2005 recorded 7,279 individuals of 31 parrot species, including four threatened species. The most frequently sold species was the blue-fronted Amazon with 1,468 individuals observed, the majority of which (94%) were believed to have been captured in the wild.⁶⁵

Most of the purchased birds remained in Bolivia. However, the researchers highlighted that Bolivia appears to serve as a bridge for the wildlife trade between Brazil and Peru. Chicks of threatened species such as Lear's macaw and hyacinth macaw that arrived from Brazil were destined for markets in Peru. They further discovered that the yellow-faced parrot (*Amazona xanthops*), a threatened species with only two site records in Bolivia, was offered for sale in the market. These birds likely originated in Brazil, given their rarity in Bolivia. Certain species are "ordered" from Lima, Peru and Mexico. Although the final market is uncertain, based on an arrest of traffickers in Spain with Bolivian endemic red-fronted macaws in 1999, the assumption is that these threatened species are destined Europe.

Continued monitoring of birds, mammals and reptiles at the Los Pozos market confirmed that birds are by far the most popular species in the domestic trade.⁶⁶ Between January 2005 and December 2009, a total of 60,618 birds, mammals and reptiles, across 115 species, were counted. Birds accounted for 55,889 in total, of which 45,404 were parrots. Mammals represented 959 specimens, of which 210 monkeys, while 3,770 were reptiles, mostly river turtles (3,431). The animals were sold as pets, and most were sourced in the department of Santa Cruz (53,940 individuals), followed by Beni (3,713) and Tarija

(2,913). Birds sourced outside Bolivia came from Brazil, Chile and Peru.

Most of the parrots observed belong to subspecies not classified as endangered (and actually considered as pests by farmers). But the research once again highlighted a trade in endangered subspecies such as the blue throated macaw, red-fronted macaw and grey-cheeked parakeet (*Brotogeris pyrrhoptera*).

The capture of wild animals is almost exclusively an activity of low-income Indigenous people. The animals are transported to market mainly by public transport, in cardboard or wooden boxes and jute bags. This was confirmed by Professor Stephen Pires of Florida International University. Often, poor rural people (*campesinos*) will poach local parrots and sell them to an itinerant middleman who visits villages periodically and sells on to illicit market vendors in a nearby city. Poaching and related illegal activities are seen as a way to earn supplementary income, especially for farmers who often see these birds as crop pests. Pires references studies in Bolivia, Brazil, Mexico and Peru which show that tens of thousands of parrots are poached and sold routinely in black markets to supply domestic demand.⁶⁷

Driving the demand for parrots is a deeply engrained culture common across much of Latin America. According to Pires, birds are the pet equivalent of cats and dogs in North America. In Bolivia, ownership of wild birds is seen as the norm, and the notion that selling them is illegal is illogical to most people.⁶⁸

3.3.4 (Illegal) bushmeat trade

Bolivians have a deep-rooted culture of eating the meat of wild animals such as deer, peccaries, armadillo and tapir (i.e. bushmeat). Indigenous people can legally hunt wildlife for their own consumption.⁶⁹ Such subsistence hunting is considered sustainable and provides an important source of protein for poor communities.

While the commercial trade in bushmeat is illegal, there is evidence that such a trade is prevalent in many rural areas of Bolivia. Several local conservation experts interviewed for this assessment expressed concern about the increased killing and trade of bushmeat to feed a new demand by foreigners working on infrastructure works and gold mining. Copious news reports, blogs and social media suggest that this concern is shared by a wider audience in Bolivia.

Signs point in particular to Chinese nationals working in Bolivia as major consumers of bushmeat, impacting wildlife populations in certain areas. For example, in February 2018, complaints reverberated in Bolivian Facebook circles about crocodiles being killed on the Vía Rurrenabaque in Riberalta, "at the hands of the China Railway Construction Corporation", responsible for the construction of this 597 km highway. The Facebook post shows images of a huge dead crocodile on the back of a truck, a smaller crocodile with its stomach slit open, and over 20 crocodile eggs displayed on a blue cloth (seemingly originating from the smaller crocodile).⁷⁰

Biologist Nuno Soares, who does research in the Pando Department in the north of Bolivia, notes that it is common for Chinese people working in rural areas to hire locals to hunt bushmeat for them. This involves anything from deer, peccaries, armadillos, tapir, and monkeys to snakes.⁷¹

Damian Rumiz of the Fundación Simón I Patiño believes the commercial bushmeat trade that has emerged in response to the Chinese appetite for wild meat is a new dimension that poses a threat to Bolivia's wildlife.⁷² Vincent Vos, a biologist at the Centro de Investigación y Promoción del Campesinado (CIPCA) in Riberalta, confirms this. He has heard reports in some villages of people losing their dogs to supply Chinese demand for meat. Local reports further claim that Chinese people are buying up tortoises for their carapaces, used in traditional medicine.⁷³

Vos, however, points out that it is not just the Chinese who have an appetite for wildlife. "Many rural communities in Bolivia hunt, eat and sell anything they can find, and there is hardly any enforcement". A study in 2003 estimated that 10 million animals are killed each year in Bolivia during the Brazil nut harvest season, when many people camp in the forest for long stretches of time, living off wildlife as a main food source.⁷⁴ In an attempt to quantify the amount of bushmeat hunted along a road from Riberalta to the Chacobo reserve and the Yata river (a Ramsar site), Vos estimated that 27,300 kg of meat is taken from this area annually.⁷⁵

According to Vos there is another correlation with the Brazil nut harvest. In 2017, when Brazil nut production was down by 70%, many people normally dependent on the harvest for their livelihoods were forced to turn to bushmeat trade and timber logging to supplement their income.

In a cultural and historical context where bushmeat consumption is the norm, it is next to impossible for authorities to control. "People selling wild meat in the market would likely get violent if enforcement officers would try to seize their meat", Vos believes. Indeed, a law enforcement officer in Rurrenabaque was threatened when he tried to confiscate various wildlife products being sold at a fair in 2017. "They almost lynched me. This thing is serious; people live off of this. They bring armadillo meat [and meat] from [other] wild animals. I found wallets made of jaguar, lizard belts, and armadillo and wild pig meat. (...) I tried to explain to them that the law prohibits it, but they almost hit me. I had to quit what I was going to do. They are fed up and they are organised in associations," he said.⁷⁶

Gold miners are another key consumer group for bushmeat, according to Vos. Villagers in the Pando department claim that all the wildlife around their villages had been killed for sale to gold miners in the area.



Armadillo killed for food in a pampa south of Riberalta, Bolivia.
© Vincent Vos

Rob Wallace acknowledges that overhunting is an issue in some areas of Bolivia. But overall, he believes that bushmeat hunting remains at sustainable levels in Bolivia, pointing out the importance of subsistence hunting for indigenous communities. In his view, commercial consumption of wild meat in Bolivia is far less significant than in other parts of Latin America (e.g. Ecuador and Panama), or Africa. "In large portions of the Amazon basin the human population density is much lower than in Africa... There are not large urban markets for bushmeat as there are in Africa and Asia and there are immense areas of wilderness...where, yes, there is hunting going on, but it's not a threat to most wildlife species." Nonetheless, Wallace agrees that we need to be aware of the potential for an increased commercial demand for wildlife species other than jaguars.⁷⁷

3.3.5 Government response

Wildlife crime is on the radar of some of the key government agencies responsible for wildlife protection - including the Santa Cruz Department and the General Directorate of Biodiversity and Protected Areas - and efforts are underway to tackle poaching and illegal trade. This is particularly true for the issue

of jaguar trafficking, which has received considerable attention from Bolivian authorities, leading to several successful criminal proceedings.

The government could do more, however. Tackling poaching does not appear to be a priority. As noted above, killing or harvesting protected wildlife for private consumption or sale to market is common and rarely pursued. There have, for example, been no prosecutions to date for the illegal killing of jaguars, an iconic and highly protected species. In rural areas people speak freely of killing jaguars, probably because enforcement poses no deterrent.⁷⁸

Several experts have noted the inadequacies of Bolivia's wildlife law enforcement, pointing out that police action is insufficient to halt the proliferate illegal trade in domestic markets. Seizure data show that although wildlife markets are sometimes raided, the day-to-day trade is allowed to continue.⁷⁹ One explanation from an officer of the government department responsible for wildlife protection centres on social norms. "It's customary here that everybody has a pet, but there is this law forbidding it," he said. "If you try to apply this law I don't know how many thousands of parrots and hundreds of monkeys you would have to deal with."⁸⁰ This friction between law and culture persists, although some Bolivian authorities - including the central government through Dirección General de Biodiversidad y Áreas Protegidas (DGBAP) of the Ministerio de Medio Ambiente y Agua and the Department of Santa Cruz - appear to have made some progress in raising awareness.⁸¹

Responsible government officials are aware of the volume of wildlife smuggling by organised criminal groups across Bolivia's porous borders into Argentina, Chile and Paraguay, but are stymied by resource constraints. In 2002, an officer of the Forestry Police commented on the killing of caimans in remote areas: "We can arrive on foot and [the traders] will leave in helicopters or light aircraft, or by

boat down the rivers. We know they are doing this but what can we do to stop it?"⁸²

Capacity is simply too thin: for all of Bolivia's 1,099 million km², just 50 police officers in charge of protecting wildlife, employed by la Policía Forestal y Preservación del Medio Ambiente (Pofoma) and assigned to the capital cities of the nine departments, as opposed to the province.⁸³

Officials interviewed for this assessment acknowledge that law enforcement remains poor, both domestically and at Bolivia's land borders. Awareness of the serious nature of wildlife crime is sometimes lacking, including in the judiciary. Moreover, there is a serious lack of capacity in Bolivia's rescue facilities for seized wildlife.⁸⁴ Bolivia's government structure also tends to hamper effective cooperation and coordination. Three different levels of administration (central, regional and local) have a mandate to enforce wildlife protection laws, posing an additional obstacle to implementation and enforcement.⁸⁵

Lastly, there are indications of corruption in the police and judiciary. Several sources claimed that corruption of police officers is a challenge to effective action against wildlife crimes in Bolivia. The judiciary is also alleged to be corruptible. Doubts about the judicial system were sparked, for example, in the criminal case against suspected jaguar trafficker Jian Fang Xiao (see section 3.3.2), on the disappearance of computer and graphic material that had been seized.⁸⁶

3.3.6 The impacts of infrastructure development

As elsewhere in the Amazon basin, infrastructure development in Bolivia is putting natural habitats and wildlife species depending on them at risk.

A case in point is the highly controversial plan to build a highway through Bolivia's Isiboro Sécuré Indigenous Territory and National Park (TIPNIS). The plan was shelved in 2011 following fierce protests by indigenous communities and environmental NGOs. However it was later revived and a law opening up the park was enacted in August 2017. The road will divide the park in two. Many expect disastrous consequences for the way of life of its indigenous communities, the forest's integrity and its wildlife.⁸⁷

Bolivia's highway project is part of a Brazilian-led effort - the Initiative for the Regional Integration of South America, commonly known as IIRSA. It is a vast network of 531 mega-projects including hydroelectric dams, highways, bridges, and electrical power systems that purports to propel the continent into the 21st century. These projects are indeed filling a major infrastructure void. However, most are set within fragile ecosystems and environmentalists warn that they could do irreparable damage to the world's largest tropical forest. If built, the TIPNIS road would likely be a major route for moving Brazilian soybeans to Pacific ports for shipment to Asia. Brazil's oil giant, Petrobras, also holds exploration rights inside TIPNIS near the planned highway.⁸⁸

A never-released study written by an offshoot of the Bolivian government's Forestry Service predicted that for every mile of paved roadway, up to six square miles will likely be deforested for a new agricultural frontier based mainly on coca. The report furthermore predicts that the highway will lead to an increase in illegal logging and will take its toll on the park's animals and wildlife habitat. Several local species are valuable black-market commodities, including

caimans, jaguars, and rare primates. A highway will inevitably prompt increased hunting and wildlife trafficking.⁸⁹

The opening up of the Amazon for infrastructure, mining etc. greatly impacts indigenous communities. In Bolivia, BGP Bolivia, a subsidiary of the state-owned China National Petroleum Corporation (CNPC), which is operating north of Madidi NP near the border with Peru, has reportedly had near encounters with Indigenous people living in “isolation” (*originarios*).⁹⁰

3.4 CONCLUSIONS

Since 1986 Bolivia has had in place strict legislation forbidding the killing, capture, possession, commercialisation and export of wild animals. This ban has been instrumental in curbing the previously unbridled export of animals harvested from the wild, which had attracted significant levels of illegal trade.

Currently only spectacled caiman and vicuña can be legally exported. Yet both continue to be poached and trafficked due to the value of their body parts in international markets. There are also indications that other Bolivian species (rare and valuable parrot species in particular) continue to be trafficked to internationally, in addition to the more substantial domestic wildlife trade.

Poaching of wildlife for bushmeat consumption and trade is widespread in some rural areas, and there is a persistent trade in live birds, mammals and reptiles taken from the wild to be sold as pets in local markets and beyond. Parrots are the species most targeted for this trade. The volumes are believed to be at unsustainable levels in certain areas, although data are insufficient to estimate impact.

Compliance with wildlife protection laws is undermined by the fact that, historically, the use of wild animals for meat or to keep as pets has been

the accepted norm in Bolivian culture. Changing this norm will take time and concerted efforts to raise awareness. Some Bolivian authorities have launched campaigns to raise awareness of the laws protecting wild animals, but the road is steep.

Capacity to enforce the wildlife protection laws is inadequate, both within the country and at Bolivia’s borders with neighbouring countries. Collaboration between central, regional and local authorities is also a challenge, exacerbated by corruption within the police and judiciary.

Infrastructure development is a key factor driving wildlife poaching, creating demand for bushmeat, opening up the forest to poachers, and enhancing human-wildlife conflicts through habitat fragmentation.

A worrying trend is the trafficking of jaguar fangs and other parts fueled by Chinese individuals and/or networks who have been actively procuring and smuggling jaguar parts to China since 2014 and possibly earlier. Frequent seizures and several prosecutions demonstrate that the Bolivian authorities are aware and motivated to tackle the trade. The media have also contributed to raising awareness of this threat. More is needed, however, to effectively disrupt the suspected networks.

4. REPUBLIC OF SURINAME

4.1 INTRODUCTION

Suriname’s rich biodiversity includes at least 715 species of birds, 192 species of mammals, 175 species of reptiles, 102 species of amphibians, 318 species of freshwater fish, and at least 5,100 species of plants.⁹¹ Suriname shares its natural diversity with neighbouring Guyana, French Guiana, northern Brazil, and eastern Venezuela. Together these make up the Guiana Shield Ecoregion, an area unique due to its biodiversity and largely uninhabited rainforests.

With 93% forest coverage, the Surinamese like to refer to their country as “the greenest country in the world”. Suriname has an estimated population of 568,301, 90% of whom live in the capital, Paramaribo, or along the coast. Paramaribo is largest city with a population of 250,000. Suriname is one of the least densely populated countries in the world, with just three people per square kilometre.⁹²

The interior is inhabited by Indigenous (Amerindian) and Maroon people. Traditionally self-sufficient hunters, fishermen and farmers, more recently many have become dependent on mining and on supplies obtained in the coastal zone. Parts of the interior are inhabited by migrants from Brazil engaged in gold mining.⁹³

Despite its natural resource wealth, 70% of the population lives below the poverty line. Suriname’s economy has fluctuated since the civil war of 1986-1992, followed by the economic crisis in the 1990s. After a decade of growth, Suriname’s economy has again been in decline since 2015, due largely to the heavy dependence on mineral prices (gold and oil in particular) and thus the country’s vulnerability to global commodity price swings. This, in combination with the cessation of aluminium mining, has

significantly reduced government revenue and national income. Annual economic growth dropped steadily from just under 5% in 2012 to -10.4% in 2016.⁹⁴

4.2 LEGAL WILDLIFE TRADE

Suriname is a major Latin American exporter of live reptiles and birds. To the extent that these species are CITES-protected, the trade is governed by the Convention, which entered into force in Suriname on 15 February 1981. Upon acceding to CITES, the government established a quota system to regulate wildlife exports.

A UNEP-WCMC analysis of Suriname’s legal CITES trade data⁹⁵ shows that between 2005 and 2014:

1. Live reptiles (mainly iguanas) were the most highly exported commodity, the vast majority wild-sourced. The large majority (70%) went to the US, followed by Germany (12%).
2. Suriname also exported significant numbers of wild-sourced live birds, predominantly parrots, including to Singapore (20%), the Russian Federation (15%) and Thailand (15%). Guyana (48%) and Suriname (34%), followed by Peru, are the main exporters of wild-sourced parrots in the Amazon region.

3. Wild-sourced amphibians were another main export commodity, primarily to the US (40%) and the Netherlands (38%). Suriname and Guyana also lead in the export of wild-sourced frogs.

The estimated average annual value of Suriname's CITES exports between 2005 and 2014 was US\$ 2.4 million. Per Table 1 below, live parrots are by far the most valuable species in trade.



Table 1.
Exports of wild animals from Suriname in US\$, 2011-2015

SPECIES	2011	2012	2013	2014	2015
Turtles	27,718	14,678	13,748	18,645	16,677
Other reptiles	123,381	145,189	133,462	151,272	142,901
Monkeys	35,565	31,790	19,349	23,785	45,510
Other mammals	17,563	11,836	12,839	4,089	3,755
Parrots	541,140	1,718,014	449,969	511,250	677,227
Other birds	30,072	83,058	34,007	19,276	23,428
Bees	3,413	6,349	1,750	-	50
Total	778,852	1,010,914	665,124	728,317	909,548

Source: Suriname General Bureau of Statistics⁹⁶

UNEP-WCMC also assessed trade trends to identify species of potential concern. Based on the assessment, UNEP-WCMC recommended further scrutiny of the reptile and parrot trade from Guyana and Suriname and the dyeing poison frog (*Dendrobates tinctorius*) from Suriname. Species of concern for which Suriname was identified as the top global exporter include: blue and gold macaw, black-headed parrot (*Pionites melanocephalus*), green aracari (*Pteroglossus viridis*), channel-billed toucan (*Ramphastos vitellinus*), green iguana (*Iguana iguana*) and the dyeing poison frog. The analysis

raises concerns as to whether harvest from the wild may be detrimental to these species.⁹⁷

In Latin America, Suriname and Guyana stand out when it comes to exports of live, wild-sourced birds and reptiles and amphibians. Several other countries in the Amazon region like Brazil, Colombia, Ecuador and Venezuela have successfully turned to captive breeding or ranching, whereas some, including Bolivia and French-Guiana, do not allow any export of wild-sourced wildlife.

The Surinamese government has tried to encourage Suriname's wildlife traders to transition to captive breeding, including holding a seminar on the subject in 2013. At the time, two captive breeding facilities existed for reptiles, including one for green iguanas.⁹⁸ In 2016, the Forest Service issued a license to a Surinamese company to breed parrots in captivity. The government foresees issuing additional licenses if this experience is successful.⁹⁹ Despite this, the captive breeding of wildlife has not yet taken off. According to traders, the costs of establishing the necessary infrastructure are prohibitive.¹⁰⁰

The trade in bushmeat and live animals is an important source of income in Suriname's interior. Maroon and Amerindian trappers sell birds, frogs, reptiles and fish to traders from Paramaribo, who market the meat in Paramaribo and French Guiana and export the live animals.¹⁰¹ Key wildlife collection areas include Apoera, Kwamalasamutu, Tepu and Washabo. There is a small-scale domestic trade in live animals in Paramaribo, but most live animals are thought to be destined for export.¹⁰²

Market shifts for Suriname's legal wildlife trade

Understanding which species are popular in the legal trade, and where they are traded to, can provide insight into possible illegal trade patterns.

Historically, the Netherlands and the EU more broadly have been a key destination for wild birds from Suriname. This changed abruptly in October 2005 when bird flu was found in a parrot from Suriname that died in quarantine at Heathrow Airport. In response, the UK government called for a ban on wild bird imports to the EU, which was rapidly implemented. The ban covers captive live birds, other than poultry imported for commercial purposes, and applies to imports from all countries. Still in place, the ban has had a major impact on the global bird trade: the number of wild birds imported across the globe dropped by 90%, from 1.3 million in 2005 to around 130,000 in 2011. Trade to the US and Mexico

increased, however, and the EU was replaced by Asia and South Africa as a destination market.¹⁰³

A wildlife trader interviewed for this assessment confirmed that today Asia is by far the most important destination for birds from Suriname, particularly related to a high demand for macaws. The US remains a destination for Surinamese parrots but the Asian market is more lucrative as consumers are willing to pay far higher prices. The export of small songbirds has substantially declined, however. This is due to competition from other Latin American countries (including Peru) who are offering songbirds at 'dump prices'.

The trader noted that the reptile trade has become much less lucrative in recent years. Demand for Surinamese reptiles has fallen as prices increased due to Suriname's economic situation. Moreover many Surinamese reptile species are being successfully bred in captivity abroad. By contrast, the market for wild-sourced Surinamese river fish for the aquarium trade is booming, making it even more lucrative than the parrot trade, according to the interviewee whose trade is almost entirely thus focused.

Discrepancies in reported CITES trade data

An analysis of Suriname's wildlife exports in the CITES trade database¹⁰⁴ shows a significant discrepancy in exports reported by Suriname and imports reported by countries importing from Suriname. For example, between 2007 and 2016, Suriname reported a total export of 10,375 parrots, whereas importing countries reported receiving 18,000 parrots. Discrepancies were also observed for the trade in reptiles, although with less of a gap: between 2007 and 2016 Suriname reported exporting 65,734 reptiles, whereas importing countries reported a total import of 79,831 reptiles.

Such discrepancies between export and import tallies are a problem worldwide in reporting of CITES trade. Reasons include deliberate misdeclaration; reporting of the number of export permits issued or quotas set, rather than the actual number of specimens in trade; and/or situations where export permits are issued one year but utilised the next.¹⁰⁵ The lack of clarity around the discrepancies observed in Suriname's CITES trade data poses a challenge to understanding the wildlife trade dynamics there – an issue which should be addressed.

Relevant agencies

The Suriname Forest Service (Dienst's Lands Bosbeheer) under the Ministry of Spatial Planning, Ground and Forest Management (Ministerie van Ruimtelijke Ordening, Grond- en Bosbeheer) is responsible for the implementation of the laws governing the country's natural resources. Within the LBB, the Nature Conservation Division (Natuurbeheer) is responsible for wildlife management in general, both inside and outside protected areas. The Nature Conservation Division is the CITES Management Authority for Suriname, issuing export permits for CITES flora and fauna as well as for non-CITES wildlife species. The Nature Conservation Division is also responsible for wildlife law enforcement, employing game wardens (currently 40 staff) to implement control in certain areas and on roads to and in the interior. The advisory body of the Nature Conservation Division - the Nature Conservation Committee - is the Scientific Authority of CITES in Suriname, at present reportedly staffed by one person.

It is possible that the Nature Conservation Division's mandate encompasses the three key responsibilities of permit issuance, law enforcement, and scientific advice may hinder an independent execution of these tasks.

4.2.1 Legal framework

The Hunting Act 1954¹⁰⁶ and the implementing legislation (Hunting Decree 2002¹⁰⁷) determine which species of wildlife may be hunted and when, elaborated in the Hunting Calendar¹⁰⁸. The law distinguishes four categories of wildlife: game species, cage species, predominantly harmful species and protected species. Mammals that enjoy complete protection include the jaguar, giant anteater (*Myrmecophaga tridactyla*), red-faced spider monkey (*Ateles paniscus*), ocelot (*Leopardus pardalis*) and bush dog (*Speothos venaticus*).

According to Articles 2 and 3 of the Hunting Act it is forbidden to catch, kill, try to kill or catch, possess, offer for sale, sell, buy, trade, present as a gift, to deliver, transport, import or export protected wildlife species and parts and products made thereof. These prohibitions are not applicable for appointed catchers who have received a permit to catch, kill, or collect wildlife for a useful cause (Art.5 section b).

The Hunting Act is only partially in force in Suriname's southern area ('zone') where the hunting of all game species and cage species is allowed all year round (Art. 3 section 2). The exception is protected species, for which hunting is closed year round. This exception was created to allow for subsistence hunting by people living in the interior. The transport of animals and their parts from the southern zone to the northern zone (where Paramaribo is located) is only allowed in accordance with the statutes of the Hunting Act and Hunting Decree, i.e. through a Ministerial Decision or permit. Thus common practice of taking wild meat (bushmeat) killed in the southern zone to the city to sell, with some people trading in high volumes on a commercial basis, does not have a basis in the law. (More on the bushmeat trade in Section 4.3.4 below).

The Hunting Calendar is outdated with respect to the latest understanding of sustainable hunting. For some species, the seasons indicated in the Hunting Calendar overlap, which means that species such as deer are being hunted in their breeding season.¹⁰⁹

Based on Article 4 of the Economic Offences Act¹¹⁰ violations of the Hunting Law are considered a criminal offence punishable by a maximum penalty of six years for intentional violations and four years for non-intentional violations. Prosecutions appear to be rare. Judging from media reports, most offenders are dealt with out of court after paying a fine (even in serious cases such as the smuggling of 19 jaguar teeth by three Chinese individuals in January 2018, see discussion below). In addition to a small fine, violators (usually hunters) have their booty confiscated.¹¹¹ The exception appears to be the poaching or trafficking of sea turtle eggs. Public prosecutors are currently demanding two years imprisonment plus the confiscation of boats and other equipment for anyone caught with eggs.¹¹²

The CITES Secretariat has classified Suriname's implementing legislation as Category 2. This means the legislation is deemed not to meet all of the requirements for the implementation of the Convention. Together with Ecuador, Suriname is thus lagging behind the rest of Latin America, all of whom are classified as Category 1. According to the CITES website, Suriname enacted new legislation which was submitted to the Secretariat in November 2017 for analysis. Suriname and the Secretariat must now reach agreement on a revised legislative analysis, including a possible Category 1 status.¹¹³

In coordination with relevant governmental and non-governmental stakeholders, Conservation International is currently leading an effort to revise Suriname's environmental and wildlife legislation.

4.2.2 Export quota

Suriname's international wildlife trade (both CITES and non-CITES species) is regulated through a quota system. Quotas are set by the Head of the Suriname Forest Service, purportedly based on the advice of the CITES Scientific Authority. Export quotas have been set for a wide array of species and are assigned to registered wildlife exporters (currently around 10-15¹¹⁴). Exporters have their own trappers, mainly members of the indigenous communities in the interior, who are licensed by the Forest Service. Exporters are responsible for transporting the collected species to their facilities, which consists of an isolation room, infirmary and export-ready hall. Veterinarians from the Veterinary Service make frequent inspections, but undertaking the health checks necessary to meet requirements imposed by importing countries is challenging due to a scarcity of the necessary testing kits in the country. A further obstacle to export is that one of the main international airlines serving Suriname only allows animal cargo for breeding purposes.¹¹⁵

The entire process, from trapping to export, is managed by the Suriname Forest Service, who is supposed to undertake an inventory after the closure of the hunting season. Trappers, exporters and transporters must log all species collected at field stations run by game wardens. But the scarcity of resources required for the wardens to travel to the interior casts doubt on whether these logs are being properly maintained and inspected.

The quota system has been criticised for inadequate scientific basis regarding the population status of the species concerned, resulting in overly high quotas - particularly given that the exports for many species are lower than the quotas would allow.¹¹⁶ Suriname is considering a revision of the quotas, but donor preferences for work on communities and protected areas mean that this is currently not a funding priority.¹¹⁷

4.3 ILLEGAL WILDLIFE TRADE

Since the last comprehensive assessment conducted in 2001,¹¹⁸ little research has been done on the illegal wildlife trade in and out of Suriname. At that time, Ouboter noted that while the control of legal exports in Suriname seemed to be sufficient, the domestic trade in bushmeat, song birds and medicinal plants was completely uncontrolled.¹¹⁹ Duplaix mentioned that the capture of animals was often done in the closed season and in protected areas, and that there was systematic smuggling of wildlife to and from Guyana and French Guiana.¹²⁰

This section discusses findings based on open source information, own research, interviews with local experts and other information obtained during a field mission to Suriname in March 2018.

4.3.1 Analysis of wildlife crime incidents

Few records (47 in total between December 2003 and January 2018) were identified regarding wildlife crime incidents implicating Suriname as a source, destination or transit country. Available information (see Annex 1) represents an incomplete picture, but provides the following insights:

1. Several incidents, dating back to 2007, were identified of jaguars being killed and/or trafficked for their parts, representing at least 15 jaguars killed between 2007 and January 2018. Other wild cat species (jaguarundi (*Herpailurus yagouaroundi*), ocelots and puma (*Puma concolor*)) are also being targeted but to a lesser extent. There is evidence of trafficking to China. In 2010, two passengers travelling to China from Suriname were arrested at Amsterdam's Schiphol airport for smuggling taxidermy crocodiles and other crocodile products as well as seven canines from an unidentified cat species. In January 2018, three Chinese individuals were caught with 19 jaguar teeth in their luggage at Paramaribo's Johan Adolf Pengel Airport.

2. Frequent seizures, most of them at Schiphol, of songbirds hidden in passenger's luggage or even on their bodies attest to the existence of a persistent illegal trade in songbirds. In most cases the birds involve non-CITES species. They can therefore only be seized for violation of Dutch animal welfare legislation due to the inhumane way in which they are smuggled, which carries with it a certain mortality rate. Unfortunately, penalties for animal welfare violations are much lower than for trafficking of protected species. The records show a total of 362 songbirds seized between 2008 and 2017, of which:

- a. 132 birds were identified and included two cock-of-the-rocks (*Rupicola rupicola* - CITES I), 78 twatwas (*Oryzoborus crassirostris*) and 10 hummingbirds of various species. 75 of the 78 twatwas were seized from a Guyanese citizen in Nickerie, Suriname, who had smuggled in the birds from Guyana. This is indicative of illegal cross-border trade in the Guianas;
- b. 232 birds were of unidentified songbird species.

3. Within Suriname there is an ongoing illegal trade in sea turtle eggs. Six cases were identified involving 39,748 eggs seized between 2008 and 2017. One seizure involved 23,500 eggs found on a boat on the Marowijne River near their collected site, Galibi. Given that just a tiny fraction of illegal shipments is generally detected, this number represents the tip of the iceberg.

4.3.2 Illegal trade in jaguar parts

There is evidence that Chinese residents of Suriname were buying up jaguar parts as early as 2003 when a former employee of the Forestry Service was approached by a Chinese supermarket owner in Paramaribo, expressing an interest in purchasing jaguar teeth and claws.

In response to numerous reports of jaguars being specifically hunted in order to meet demand for body parts, in 2010 WWF commissioned a study on the

illegal exploitation of jaguars and other forest cats in Suriname. The study involved visits to 4 forest sites in Suriname (Kwamalasemutu, Plantage Lasai, Santigrón, Witsanti) where jaguar exploitation was known to take place. Fifty interviews were conducted with hunters, along with a market survey in Paramaribo (two Chinese restaurants, three markets, four Chinese supermarkets and 12 jewellery shops) with the aim of assessing the possible trade in jaguar parts.¹²¹

The report is brief but disturbing. As early as in 2005 there were reports that it was common for hunters who encountered jaguars to kill them, remove their teeth and sell these in Paramaribo. Evidence was found of systematic jaguar hunting by the villagers of Kwamalasemutu in south Suriname. Despite their awareness of the jaguar's protected status, at least seven jaguars were killed in this village each year, purportedly out of fear as well as retaliation for jaguars attacking their poultry and dogs. The study's author - who was interviewed in March 2018 for this assessment - related that villagers consider a jaguar kill as a ticket to Paramaribo, as they bring jaguar heads with them to the city to sell to Chinese buyers for SRD 750, thereby funding their trip.

The WWF study also found that Chinese people place orders with known hunters to acquire jaguar parts. Jaguar teeth were reportedly smuggled to China due to the higher market value there, but there is also a market among Chinese consumers in Suriname.

Jaguar meat is believed by Chinese people to have medicinal power, especially for ailments in old age. The bones (particularly the skull) are used to prepare medicines for rheumatism. The teeth are used in golden pendants which were found for sale in several Chinese jewellery shops in Paramaribo at prices ranging from SRD 80-1,200, depending on their size and quality. Canines are more valuable than other teeth. For teeth only, the price varied from SRD 45-400 apiece.

A survey of various markets in Paramaribo did not encounter the meat of wild cats, but it was possible to place orders for jaguar and other species. Menus in Chinese restaurants in Paramaribo did not feature wild cat meat, however several restaurants were found willing to prepare meat provided by the client upon request.

The report also touched upon the illegal trade in jaguarundi (CITES II) and ocelots (CITES I). The jaguarundi was found to be even more popular in trade than the jaguar: the skin is more valuable to the Chinese, and therefore more expensive. Apparently its meat also tastes better. Ocelots are most often killed in human-wildlife conflict as they frequently attack poultry. They were not found in the trade: usually the animal is disposed of without removal of skin or body parts.

As of 2018 the situation is either unchanged or possibly worsened. Several respondents for this assessment related that it is common knowledge that Chinese people based in the interior (usually supermarket owners) buy up jaguars. They actively approach villagers, loggers, gold miners, hunters and even government officials to register a demand for jaguar parts. The general sense is that people don't set out with the sole purpose of poaching jaguars, but if they come across one in the interior they will shoot it, knowing its value, and sell it to the Chinese. Recently jaguar hunting has become more covert in response to increased public attention, but it continues nonetheless.

People who have killed jaguars tend to claim that they did so to protect themselves and/or their livestock. This effectively removes their culpability, as Article 16 of the 1954 Game Law exonerates people who have violated this law if it was for necessary and direct protection of their own or someone else's person or property. This provides a problematic loophole, as it is close to impossible for law enforcement officers to prove a killing was made for something other than self-protection.

On 13 February 2018 a photo of a dead jaguar was circulated in Suriname's Facebook community. It was posted by an account called Actionnieuws Suriname, with the comment "Here in Su. In a gold miners camp". A source confirmed that it was taken in Benzdorp, in the southeast near Suriname's border with French Guiana.

In a new trend, Chinese purchasers have recently started to request suppliers for the entire, intact carcass, where previously just pieces and/or the head would suffice. Several sources reported that Chinese now like to boil the entire carcass into a pulp which is dried and pulverised and made into medicine. Large bones and teeth that survive this process are marketed separately.

One source related that a network of Chinese people is involved in trafficking jaguar parts from the interior to Paramaribo for processing, using supermarkets, jewellery stores and other shops as cover. These activities feed both a domestic demand by Chinese people in Suriname as well as an international supply to China. Teeth and processed medicines are smuggled by air passengers returning to China, as well as in timber containers transported by sea. According to this source, over 80 jaguars were killed in 2017.

Most respondents believe that it is mostly "new Chinese" (i.e. those associated with investment in Suriname since the early 2000s) who are trafficking and consuming jaguars. Some maintain, however, that older generations of immigrants are also known to hunt and consume jaguars.

No one knows how many jaguars are left in Suriname. Ouboter has observed severe population decline in some of his research areas over the last five years.¹²² Others who spend a lot of time in the forest say they encounter jaguar tracks on a regular basis. Although this is entirely anecdotal, there may still be hope of maintaining a viable population if the threats are addressed.



Photo of dead jaguar circulated on Facebook in February 2018.

On 23 January 2018, three Chinese travelers were arrested at the airport in Suriname's for an attempt to smuggle out 19 jaguar teeth, as well as raw gold. The suspects were released after paying a "hefty fine".¹²³ The sum is unknown, but it could be argued that these individuals should have been prosecuted to the full extent of the law instead of being dealt with out of court. If an example is not made of significant cases such as this one, it is easy to conclude that wildlife crime does pay in Suriname.

Illegal jaguar trade on social media

Several Surinamese people have been found advertising jaguar canines (tijger tanden / tigrififi) on Facebook, as well as asking to buy them. The adverts were posted in the open Facebook group 'Things for sale' in 2016, 2017 and 2018. Similar ads are likely being posted in other Suriname-based Facebook groups.



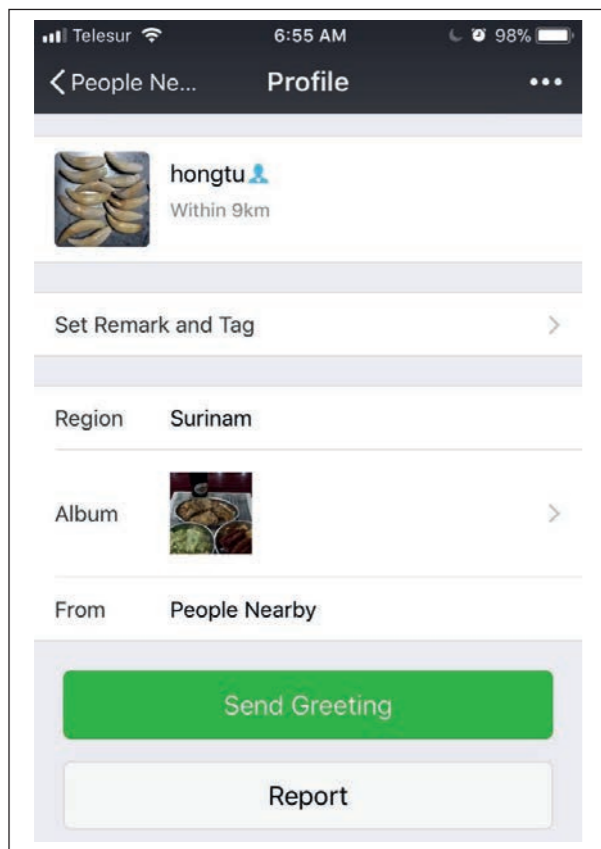
Adverts on Facebook offering 'tiger' teeth for sale.



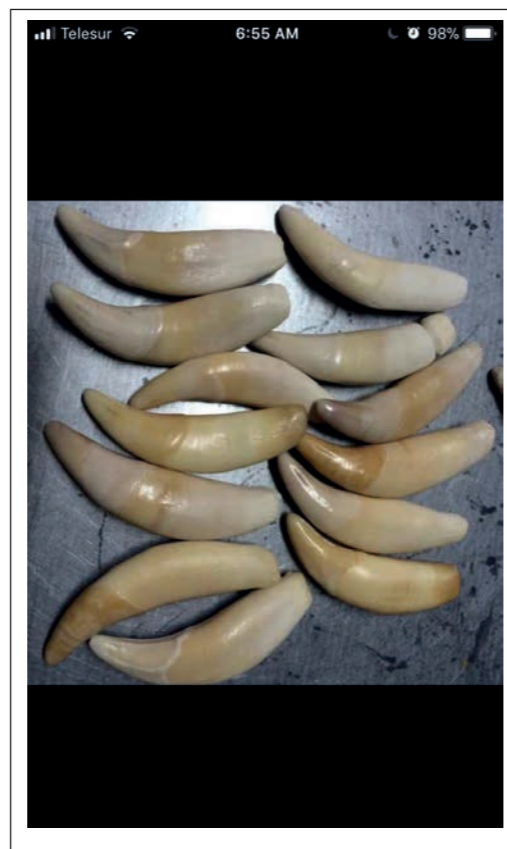
Moreover, there are indications that Chinese people in Suriname are advertising jaguar parts on WeChat, a social media application widely used by Chinese people around the world. One source noticed an acquaintance who had returned to China from Suriname and posted an image of a big cat tooth on WeChat with the caption: "What a beautiful jaguar tooth, contact me if needed." (see image below). If the tooth is genuine it is not unlikely the woman obtained it in Suriname.



Suspected jaguar tooth observed on WeChat.



Caption translation: 'what a beautiful jaguar tooth, contact me if needed.'



Suspected jaguar teeth displayed on WeChat account of individual residing in Paramaribo.

In another WeChat profile identified, a photo depicts 13 big cat canines that resemble jaguar teeth. It is unclear whether this person has the canines in his/her possession or is advertising them. In any case, under Surinamese law it is illegal for anyone to possess jaguar parts. WeChat is commonly used to advertise illegal wildlife commodities among Chinese or Asian wildlife traffickers seeking to target Chinese clients.¹²⁴

Responses of authorities and NGOs

On 3 October 2017, the sub-directorate Forestry Service (Bosbeheer) of the Ministry of Spatial Planning, Land and Forest Management (Ruimtelijke ordening, Grond- en Bosbeheer) issued a reminder notice that jaguars and the other five cat species

living in the wild are totally protected. The Ministry stated it is aware that "slaughters are taking place", predominantly by hunters, among jaguar populations, and warned that violations of the Hunting Act are punishable by law.¹²⁵ On 3 March 2018 - World Wildlife Day - Minister Samsodien called upon the general public to "keep their hands off the jaguar".¹²⁶

The Chinese embassy in Suriname was also busy, issuing a notice on 25 February 2018 to Chinese citizens residing in or going to Suriname not to purchase or carry "tiger canines" (jaguar canines) out of the country. This referred to the recent arrest of Chinese citizens by Surinamese Customs for attempting to carry jaguar canines out of the country.

The notice was also posted on the website of the Consular Service of the Chinese Ministry of Foreign Affairs.¹²⁷

Conservation International has elevated the jaguar as a priority for its newly established wildlife crime programme, along with eight other species. Among other things, they will undertake population assessments, collect information about the scale of the illegal trade and work with local communities on the basis of conservation agreements.

WWF-Guianas and Panthera's office in Guyana have partnered to organise a workshop for NGOs, government and other relevant stakeholders with the aim of developing an action plan for jaguar conservation in Suriname.

4.3.3 Illegal trade in live animals for the pet trade

Suriname's wildlife species (particularly birds, reptiles and amphibians) are popular in the pet trade. A wide range of species have been legally traded for decades. Media reports, other open source information and historical or anecdotal information from experts indicate that live birds and reptiles are sourced illegally in Suriname to be sold locally or smuggled out of the country. A lack of quantitative data has made it challenging to assess the scope and nature of this illegal trade.

It should be noted that there is a major information gap concerning the legal trade in species not protected by CITES. Beyond the effective monitoring framework provided by CITES, the trade in non-CITES species largely happens below the radar. Its impact on wild populations too often only becomes clear when it is (almost) too late.

ROUTES AND SMUGGLING METHODS

Smuggling by air

Air transport is a favoured means of smuggling live birds and reptiles globally. In 1996, Czech Republic customs officers intercepted a crate of 47 parakeets from Suriname, en route to Poland. The parakeets were protected under CITES and had been falsely listed as a legally exportable species. The birds, with an estimated value of US\$ 150,000, had reportedly been sold to a Kuwaiti sheik who had been unable to take delivery of his illegal merchandise.¹²⁸

There are frequent interceptions - most often at Schiphol airport - of individuals carrying live birds on their body or in their luggage. These usually involve seed finch species popular in the Netherlands' Surinamese community for their song, however more unusual species are also targeted. Examples include the two live cock-of-the-rocks and other rare bird species found in the luggage of three women arriving at Schiphol in 2008¹²⁹ and the man who was caught at Schiphol in 2012 trying to smuggle 10 hummingbirds and two tanagers in his underwear. This same person had been arrested in French-Guiana in 2011 with "bags full of hummingbirds" (see image below) and had apparently tried a different route.¹³⁰



Live hummingbirds found hidden in underwear of Dutch smuggler, French-Guiana 2011.

One source mentioned illegal specimens of protected birds and reptiles smuggled out of the country by air, hidden in legal cargo shipments. While such convergence of legal and illegal trade occurs frequently around the world, this information could not be verified.

The wildlife trader interviewed for this assessment said that KLM has recently installed a scanner for all cargo shipments leaving Suriname's Johan Adolf Pengel airport, and that KLM strictly scrutinises shipments going through this scanner. It is unknown whether other airlines have such controls in place. The main international destinations for airlines servicing Paramaribo include Amsterdam, Miami and several Caribbean airports. Amsterdam and Miami are important international hubs; it is likely that illegal wildlife from Suriname arrives in or transits through these airports to destinations elsewhere in the US, Europe, the Middle East and Asia.

Smuggling by land

Suriname shares long and porous borders with Guyana, French-Guiana and Brazil. Systematic smuggling of live birds and reptiles has long benefited from these largely unguarded borders. In 2001, for example, the chief French customs inspector noted the smuggling of parrots from Suriname to French-Guiana, where they were sold on the roadside between Saint Laurent du Maroni and Kourou.¹³¹ It appears that the smuggling continues virtually unhindered to this day. Nieuw-Nickerie in northwest Suriname, on the border with Guyana, is a popular entry point. This is where the Guyanese man was arrested in 2009 for smuggling 75 *twatwas* into Suriname. In 2017 Nickerie was the site of the seizure of 80 macaws which had been smuggled in from Guyana.

Suriname, Guyana and French Guiana each has their own laws for regulating wildlife harvest and trade. French Guiana does not allow any commercial wildlife exports, whereas Suriname and Guyana

have established a substantial commercial wildlife trade system based on export quotas. There can be huge difference between these quotas. For example, Suriname has zero or low export quotas for many of the commercial parrot species listed for Guyana. The 2017 quota for blue-cheeked parrot (*Amazonia dufresniana*) was 70 individuals in Suriname, whereas in Guyana the quota was 520. For other species, Suriname's quota is higher: their 2017 quota for brown-throated parakeet (*Aratinga pertinax*) was 2,033, while for Guyana it was 500.¹³²

Suriname and Guyana also have different closed seasons for the harvest of certain species. For example, Guyana's closed season for macaws is between 1 April and 1 August, while in Suriname it lasts from 1 January through 1 July. Traffickers abuse these diverging regimes by smuggling wildlife across the borders and laundering it into legal trade under the relevant export quotas. Guyanese wildlife traders complained about this in a 2012 meeting with Guyanese government officials.¹³³ The differences have effectively created an additional incentive for smuggling.

As for the border with Brazil, there is historical evidence that Surinamese wildlife traders have been involved in laundering Brazilian reptiles such as emerald tree boas (*Corallus caninus*, CITES II) by smuggling them from Brazil and then exporting them as Suriname specimens using fraudulently obtained CITES documentation. In 2001 the Brazilian NGO Renctas drew attention to the outflow of Brazil's wild animals across its Amazon region borders - mainly to Colombia, the Guianas and Venezuela. Illegal trade in this region is intense due to lack of surveillance on the Brazilian side.¹³⁴

No evidence was found of present-day smuggling from Brazil to Suriname, but sources report that this probably still occurs, undetected due to the poor law enforcement presence in south Suriname.



Blue and yellow Macaw chicks seized in Trinidad, 2017.

Smuggling by sea

No evidence was found of the smuggling of birds and reptiles by sea. However there are indications of a sea trafficking route to the Caribbean islands, a popular destination for wildlife illegally arriving by sea from biodiversity-rich countries in the northeast of South America. Trinidad and Tobago, in particular, is a known transshipment point for wildlife traffickers due to its strategic geography connecting South America to North America and Europe. Drugs, arms, ammunition and humans are all trafficked in the region, but according to the International Fund for Animal Welfare (IFAW) illegally traded wildlife species - primarily exotic birds, reptiles and primates - top the list.¹³⁵ In Trinidad and Tobago it is rumoured that exotic wildlife from Brazil, Guyana, Suriname and Venezuela was smuggled in by small, local fishermen from a larger vessel anchored off the coast.¹³⁶ That there is some truth in this is apparent from an incident in 2009, when a boat from Venezuela was found carrying over 500 bull finches, 300 picoplats

songbirds and an unidentified number of monkeys. The case came to light when four police officers from Trinidad intercepted the boat at gunpoint and stole the shipment of animals.¹³⁷

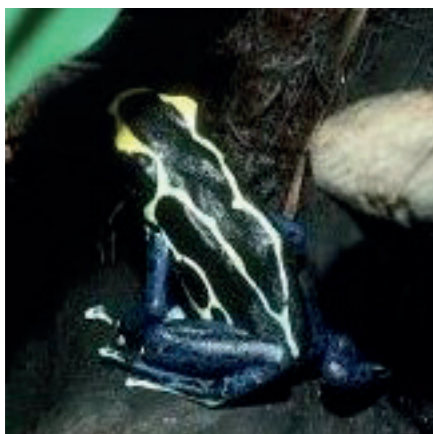
DOMESTIC DEMAND FOR RARE SPECIES

According to sources there is a small, but potentially damaging local demand for very rare and highly protected species such as the Guianese cock-of-the-rock, jaguars etc., which some members of Suriname's elite like to keep as pets. These people are well connected, and are reportedly able to legalise illicit specimens through obtaining a permit in case they are detected.

EXAMPLES OF SPECIES THREATENED BY ILLEGAL TRADE/OVEREXPLOITATION

Dyeing poison frog

The dyeing poison frog (CITES App. II) is a colourful, widely traded frog endemic to the eastern part of the Guianas region. Brazil and French Guiana prohibit the export of specimens, thus exports originate mostly from Suriname and to a lesser degree from Guyana. Both countries have a voluntary export quota whose scientific basis is not clear. In 1999 the CITES Animals Committee requested that Suriname provide biological data on which they based their export quotas for wild-caught dyeing poison frog, but the information was not disclosed. In 2013 Suriname considerably exceeded its export quota



Dendrobates tinctorius.
© Joseph Schmuck (cites.org)

for this species. Despite the fact that Brazil prohibits the export of all fauna and flora, five dyeing poison frog 'morphs' - only known from Brazil - have been in the terrarium trade for years. In 2014 it became clear that specimens from Brazilian populations were being smuggled out of Brazil to the EU where they sold for high prices and were easily laundered as "legal" thanks to captive breeding in Europe. Experts pointed out that Surinamese wildlife traders probably obtained these specimens from Indigenous people

living in the south who are in frequent contact with neighbouring villages in Brazil and could easily smuggle wildlife from Brazil to Suriname.¹³⁸

In response, in March 2015 the EU Scientific Review Group issued a negative opinion for the import into the EU of wild specimens of the dyeing poison frog from Suriname. The rationale was that introduction into the EU from Suriname at current or anticipated levels of trade is likely to have a harmful effect on the conservation status of the species. As a result, EU CITES Management Authorities are not allowing the import of this species into the EU.¹³⁹ That said, a European CITES officer who wished to remain anonymous has suggested that, this being a popular species commonly bred in captivity, at some point a demand for wild-caught specimens may resurface in order to enrich captive-bred populations in the EU, which may result in the re-emergence of smuggling.

Red-footed tortoise

The red-footed tortoise (*Chelonoidis carbonarius*, CITES App. II) comes from northern South America. In Suriname they occur in the coastal areas and in the south. They are popular in the domestic and international pet trade and are also known to be consumed for food locally. In 2014, UNEP-WCMC conducted a technical review of the trade in this species from Suriname, to inform discussions by the Scientific Review Group on its sustainability. According to the report, the species' population



Red-footed tortoise. © Tyler Stewart

in Suriname is believed to have experienced substantial declines due to the levels of international trade, which took place without assessment of the sustainability or potential future effects. UNEP-WCMC referred to a 2012 report by the IUCN/SSC Tortoise & Freshwater Turtle Specialist Group which pointed out that individuals collected in Guyana and French Guyana were being (illegally) transported to Suriname, where they were sold in the domestic market or exported.¹⁴⁰

Twatwa

The twatwa is a seed finch species native to Brazil, Colombia, Ecuador, the Guianas, Peru and Trinidad and Tobago. It is a popular songbird in Suriname and elsewhere in the region where it is used in singing contests. Trained birds sell for several hundred euros, while prize-winning birds can command prices in the thousands. Other seed finch subspecies, such as picolets (*Oryzoborus angolensis*), rowtis (*Sporophila minuta*) and gelebeks (*Sporophila schistacea*) are also used for this songbird trade but twatwas are the most popular due to scarcity and a purportedly finer song.

Twatwas were systematically harvested from the wild for several decades until it became clear - unfortunately too late - that the species had been extirpated in Suriname.¹⁴¹ Picolets and rowtis have also disappeared from many areas.¹⁴²



Twatwa. © Ringmaster Amsterdam

The twatwa received legal protection with the entry into force of the Hunting Decree 2002. The species became a protected species in 2008 after a five year transition period meant to stimulate captive breeding and to legalise existing specimens through registration. The hunting season is closed year-round. Harvest of wild specimens to refresh bloodlines of captive populations remains possible with a permit. Other songbird species can still be harvested according to the Hunting Calendar.

Since they became protected and effectively extinct in Suriname, an illegal trade has emerged, with twatwas reportedly smuggled from Venezuela, entering Suriname via Guyana. As discussed in Section 4.3.1, twatwas and other songbirds are also smuggled to the Netherlands. Similarly, Guyanese individuals frequently smuggle these birds to the US to supply Guyanese immigrants living there.¹⁴³

Some advocate that the Surinamese government should propose twatwas for CITES listing. While it is not likely that this would deter smugglers, it would increase the seriousness of smuggling offences and thus the penalties that could be imposed. Currently, in the absence of international legal protection Dutch authorities can only penalise smugglers for violation of Dutch animal welfare legislation, which has a relatively low penalty regime.

Stingray

A final example of the danger of uncontrolled exploitation is the overfishing of the Potamotrygon Boesemani stingray (*Potamotrygon Boesemani*). For nearly a decade this freshwater species has been heavily targeted for the aquarium trade. At its peak, traders were selling the ray for US\$ 5,000-7,000 each, mainly to Asian aquaria and breeding centres. Once breeding in captivity became successful, the market for wild-caught specimens deteriorated. Nonetheless a large specimen still sells for around US\$ 2,000.¹⁴⁴

In response to concerns about overexploitation of this species the export has become regulated with export quotas. This, in combination with the successful captive breeding taking the pressure off Suriname's wild populations, will hopefully allow the species to recover.



Boesemani stingrays in holding facility of Surinamese wildlife trader, March 2018. © Pauline Verheij

4.3.4 Illegal bushmeat trade

Within Suriname there is a significant trade in bushmeat. Members of indigenous communities in the interior are legally allowed to hunt wildlife year-round for subsistence. There is a grey area, however, where they sell it to miners and loggers working in the interior and/or bring it to town and sell it to generate an income. Many argue that in principle this use of wild meat remains within the parameters of the law. In recent decades, however, a substantial and highly commercial trade in bushmeat has emerged which is arguably in violation of the provisions of the Hunting Act. Experts have cautioned that this trade is unsustainable, although no data is available on its size.

In 1999 the UN Food and Agriculture Organization (FAO) noted that "the dependence on wildlife species for protein by Surinamese Indigenous people and its urban inhabitants poses a threat to the country's living resources, and for many species the demand for wild meat is far greater in size and seasonal impact than the live-animal trade. There also appears to be a small but steady flow of wild game meat to neighbouring countries, where market prices are much higher than what can be obtained in Suriname".¹⁴⁵

In 2001, Ouboter commented that, based on observations in the field and in the markets, the bushmeat trade seemed to be increasing considerably. He pointed out that the growth of some local communities was causing local overexploitation. Moreover, some communities were starting the commercial exploitation of bushmeat and fish, selling their catch to middlemen in Paramaribo and Nieuw Nickerie. He observed that as a consequence of hunting by local communities and "sport hunters" from town, all popular game animals were declining or had disappeared from easily accessible areas near villages, along roads, etc.¹⁴⁶

Duplaix raised the same concerns in 2001, highlighting that hunting pressure was no longer sustainable due to overcrowding of many of the larger villages, and that the commercial bushmeat and wildlife trade had resulted in overexploitation and habitat destruction within a radius of 25-50 km around these villages. In the Apoera-Washabo region, hunters reported having to walk at least three days in the forest to find larger species like peccary or deer. Duplaix noted that there were year-round commercial hunters in the interior who exported bushmeat and smoked fish by boat or small plane to town and that this trade was a growth industry.

In 2010 a survey was carried out in 15 local markets in order to assess the bushmeat and wild plant trade in Suriname.¹⁴⁷ The survey found meat of mammals

and reptiles for sale, as well as river, swamp and sea fish, medicinal plants, bird feathers and live birds for the pet trade. At two markets protected species were offered for sale: giant anteater skin was sold for medicinal purposes at Markt Zuid and an ocelot skin was sold in Albina as a souvenir. Sellers indicated that most of the bushmeat originated from western Suriname. Often the wife of a hunter sells the meat in the market. Interviews with sellers in the markets, however, showed that hunters from the interior usually sell the meat to middlemen from Paramaribo who in turn sell the meat to the market vendors.

The survey report noted that all accessible areas of the interior are overhunted and that hardly any wildlife can be found. Although the bushmeat trade provides important livelihood benefits (protein for subsistence and some income for the livelihoods of poor rural communities), these benefits are discounted by the usually unsustainable nature of the activity, causing decline in the local game populations. These declines threaten both the species concerned and the forest itself, impacting seed dispersal and other important ecosystem functions. The report concluded that it is extremely important to find a solution to these unsustainable practices and turn the bushmeat trade into an activity that is positive for both the local communities and nature conservation.

The impression obtained during the field mission is that the commercial bushmeat trade has far from declined since 2001. Several respondents noted that wild meat is commonly available in markets and restaurants across Paramaribo.

Respondents differed in opinion about the impact of the bushmeat trade. Some believed overhunting might be a problem locally, but felt that the interior is too vast and in many places too difficult to penetrate for species to be seriously impacted on a national level. Others pointed out that people are killing wildlife indiscriminately, including in protected areas,

targeting protected species and ignoring the Hunting Calendar.

The government appears to have little appetite to take action against the unbridled commercial bushmeat trade, reportedly out of concern for people's livelihoods particularly in this time of economic crisis. It could alternatively be argued that research is required to understand the scale and scope of this trade and its impact on wild populations, precisely for the sake of protecting indigenous communities' livelihoods, species conservation and the interests of the ecotourism sector.



Wild meat on menu of restaurant in Paramaribo, March 2018. © Pauline Verheij



Dead Howler monkey, a strictly protected species (CITES I), openly for sale along the Afobaka road, Suriname.
© Erian Steur, Probios.

4.3.5 Illegal trade in sea turtle eggs

Sea turtles are probably the best studied of all species in Suriname; no other species appears to have received more conservation investment. The history of marine turtle conservation and monitoring in the coastal area of the Guiana Shield Region dates back to the 1960s. It one of the most important nesting areas for sea turtles worldwide. Four of the seven existing species of sea turtles nest on Suriname's beaches: the leatherback (*Dermochelys coriacea*), green turtle (*Chelonia mydas*), olive ridley (*Lepidochelys olivacea*) and, sporadically, the hawksbill (*Eretmochelys imbricata*).¹⁴⁸ Suriname supports one of the largest leatherback nesting colonies world-wide¹⁴⁹ - a species listed as critically endangered by the IUCN.

Beyond pressures from drift net fisheries and sand mining, the sea turtles frequenting Suriname's beaches are threatened by poaching of their eggs which are considered a delicacy. In 2000, research commissioned by WWF showed that the olive ridley

population of Suriname had dramatically declined in the previous decades due to egg poaching and shrimp fisheries. Over 30 years the numbers of nests had dropped from over 3,000 to just over 100. By contrast, poaching of leatherback turtle eggs was significantly reduced and could no longer be considered a serious threat in Suriname in 2002.¹⁵⁰

For several decades WWF-Guianas has invested in monitoring and protection of Suriname's sea turtles, including by funding the Suriname Forest Service to tackle egg poaching and trafficking and sensitising the judiciary. Today poachers and traffickers are heavily punished and even risk imprisonment for sea turtle egg trafficking.

Poaching continues to be a serious problem, however, as discussed in Section 4.3.1. In 2009 officials from Suriname at a regional workshop on illegal wildlife trade in Guyana informed other participants that Surinamese authorities seize thousands of leatherback turtle eggs every nesting season. They explained that there is a growing

demand for this commodity from Surinamese consumers, and that this represented a shift from subsistence consumption by the indigenous population which was now further endangering the species.¹⁵¹

WWF monitors the nesting of sea turtles, the number of turtle nests destroyed by poachers and law enforcement efforts, however the information was not available in time for inclusion here.

4.3.6 Impact of gold mining and timber logging

Although illegal extraction of natural resources (other than wildlife) does not fall within the scope of this assessment, such activities have a negative impact on wildlife in Suriname, as in the wider Amazon. In the last two decades Suriname's interior has become much more accessible. Logging infrastructure has opened the forest to hunters who don't always abide by the legislation. The influx of loggers and gold miners has also resulted in increased hunting of wildlife for direct consumption.

Concentrated mostly in west Suriname, gold mining has a particularly disruptive impact on the forest's ecosystem and environment. Wide-scale illegal mining and logging have even been observed in Suriname's signature protected area, Brownsberg National Park.¹⁵²

From air surveillance of mining camps, the government estimates that some 40,000 people live in and around the gold mines - 18,000 of whom are officially registered. Half are service providers, the other half are gold miners.¹⁵³ Such numbers of people can be expected to have a significant impact on wildlife populations in areas surrounding the camps. Experts speak of "defaunation" and empty forest syndrome, although the extent of this is unclear.

Workers employed by logging and mining companies may well be involved in wildlife poaching. One respondent who has worked in the logging industry for years related that all loggers in the interior have a hunting rifle (often illegal). These are frequently used to violate the hunting laws, such as by shooting wildlife in the closed season or by exceeding the legal quantity (the "bag limit"). Jaguars have been reported to come into conflict with residents of the camps and in some cases have been killed, purportedly out of self-defence or in retaliation for livestock killings. Data is minimal.

The interior will likely continue to be opened up for exploitation. Several have commented on the culture of nepotism that has taken root in Suriname in the last decade, benefiting a small political and business elite. Gold and timber concessions have been issued to well-connected individuals who profit greatly from the extraction of timber and other natural resources, either directly or by renting out concessions to third parties. Fortunately, Suriname still has large swathes of pristine forests, protected by their remoteness and inaccessibility.

4.3.7 Government response

In a proposal to the Global Environment Facility (GEF) for funds to support the management of the Suriname Central Nature Reserve¹⁵⁴, Conservation International noted that wildlife protection in Suriname was challenged by:

1. Lack of capacity and inadequate regional cooperation in regulating transboundary trade;
2. Lack of financial resources to hire and train law enforcement staff;
3. Lack of awareness by authorities regulating wildlife trade that illegal trade is a threat.

In 2010, Ouboter et al highlighted a lack of law enforcement capacity, pointing out that the Nature Conservation Division was not always present in the protected areas of the interior (Sipaliwini N.R.,

Central Suriname N.R. and Brownsberg Nature Park). Although capacity had been boosted with the recruitment of game wardens and some capacity building, the Ministry budget for logistical control activities of the game wardens was insufficient to allow them to perform their tasks.¹⁵⁵ Similarly, in 2010 WWF Guianas remarked that the department in charge of law enforcement did not appear to have enough manpower and tools (vehicles) to properly enforce regulations.¹⁵⁶

The situation in 2018 appears to be unchanged and possibly worsened with the economic downturn. Several interviewees commented on the serious lack of law enforcement presence in the interior. The Forest Service employs 40 wildlife inspectors to cover the entire country. Controls in the interior are conducted sporadically due to lack of fuel budget for the vehicles. Hence the interior has been described as a 'wild west', where poaching of jaguars and other protected wildlife species can occur virtually with impunity.

Given the economic situation, the spending budget for the Nature Conservation Division is unlikely to rise in the near to mid-term. There appears to be greater awareness within the responsible ministry of the need to protect Suriname's wildlife for future generations, but the issue of wildlife crime could be higher on the political agenda.

Corruption is perceived to be an issue at all levels of government, and may be higher than ever before. Various anecdotes relate how well-connected members of the elite caught for illegal possession of protected wildlife species evade justice after interventions from high-level government officials on their behalf. Meanwhile, wildlife and timber law enforcement officers' salaries were frozen in 2016 but inflation has since soared, effectively halving their incomes. The potential for bribery of low- to mid-level government staff has thus increased in recent years.

4.4 CONCLUSIONS

Suriname is one of the biggest exporters of live birds, reptiles and amphibians in Latin America, topping the list for wild-caught parrots together with Guyana. However, in recent years the wildlife trade (particularly in reptiles and amphibians) has declined as a result of the EU import ban, shifting markets, price competition from other source countries and successful captive breeding of popular species.

Questions have been raised in CITES and other fora about the sustainability of Suriname's trade in animals sourced from the wild. The export quotas underpinning this trade are in urgent need of updating to reflect current knowledge of the non-detrimental harvest of species. This would require significant investment in scientific research of key wildlife species and how they are affected by the trade. In a time where the trade in wild animals is increasingly scrutinised for its impact on conservation, animal welfare and human health risks, Suriname might consider a paradigm shift in moving away from this trade and seeking more sustainable ways of exploiting its natural wealth. Many other source countries have already done this, limiting or stopping the export of wild animals.

Whereas the legal export of wildlife appears to be sufficiently regulated, the hunting and capture of wildlife in the interior as well as the smuggling across country borders is inadequately controlled due to lack of capacity and resources. Animals caught illegally (e.g. in the closed season) or smuggled from or to neighbouring countries are thus easily 'laundered' into the legal trade.

Cross-border smuggling in the Guianas is systematic and driven by traffickers abusing the diverging frameworks for regulating wildlife capture and trade, facilitated by the long and porous borders. This is a situation that even traders have complained about and which provides a clear case for improving regional collaboration and harmonising legal frameworks.

Little concrete evidence was found of illegal wildlife trade out of Suriname. While this may mean that it is not a significant issue it is more likely that illegal wildlife flows go undetected due to a lack of law enforcement effort.

Within Suriname, the commercial trade in bushmeat from the interior to the city of Paramaribo deserves more attention. This is illegal but condoned by the Forest Service. No one knows how much wildlife is killed for this trade and how wild populations are affected. The bushmeat trade is believed to have increased in the last two decades, but to what extent is unclear.

The poaching and trafficking of sea turtle eggs has been a concern for decades given its impact on key endangered species dependent on Suriname's beaches for their survival. Sea turtles and the poaching of their eggs receive more attention than any other species, yet poachers and smugglers continue to be willing to risk interception. Given the economic crisis, this threat is likely to persist.

Concerns have recently arisen about the illegal jaguar trade. Chinese individuals in Suriname have been actively procuring, consuming and trafficking jaguars for at least 15 years, and there is evidence of smuggling to China. Suriname seems to be unprepared to effectively address this illegal trade which appears to be driven by well-organised and well-connected networks of Chinese individuals operating in Suriname. The government appears to hope that raising awareness may stop people from engaging in illegal trade. Suriname cannot afford to be complacent however, as there is a real risk of its jaguars being driven to extinction if firm action isn't taken to stop the trade and arrest and prosecute key individuals involved. The (near) extirpation of African and Asian species for which there is a high demand in East and Southeast Asia holds important lessons about the speed with which poaching can spiral out of control when there is a demand supplied by organised criminal networks.

It has been suggested that the emergence of the jaguar trade is associated with the arrival in the early 2000s of large Chinese companies involved in infrastructure development and natural resource extraction. It is certainly possible that the influx of 'new' Chinese citizens has expanded the demand for jaguar parts within Suriname and facilitated the smuggling to China using Chinese workers returning to China. Demand for jaguar parts already existed among older generations of Chinese in Suriname, however. Moreover, there are indications that at least some of the individuals engaged in the trafficking are already well-established, owning supermarkets, restaurants, jewellery shops, etc. Regardless of whether the trade is driven by 'new' or 'old' Chinese, approaches need to urgently be developed to tackle the problem while there is still time.

NOTES

1 For more information see: <https://www.unodc.org/unodc/en/wildlife-and-forest-crime/wildlife-and-forest-crime-analytic-toolkit.html>

2 Such as the prize-winning initiative to decrease the overharvesting of local wildlife and provide alternative income streams for the Waorani, an indigenous group from the Yasuní Biosphere Reserve in Ecuadorian Amazon in partnership with TRAFFIC, and BIOS, a prestigious Ecuadorian chocolate company: <http://www.traffic.org/home/2014/6/5/amwaetraffic-project-wins-prestigious-undp-award.html>

3 For more information see: <https://www.unodc.org/unodc/en/wildlife-and-forest-crime/wildlife-and-forest-crime-analytic-toolkit.html>

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ANNEX 1

ANNEX 1 WILDLIFE CRIME INCIDENTS BOLIVIA AND SURINAME

WILDLIFE CRIME INCIDENTS BOLIVIA									
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
1	Jan 21, 2003	USA			Caiman			1	
2	Jun 25, 2003	USA			Caiman			1	
3	Oct 01, 2003	USA			Caiman				7 small leather products
4	Jul 10, 2004	USA			Blue-crowned parakeet		1		
5	Aug 12, 2004	USA			Caiman			1	
6	Dec 28, 2004	USA			Caiman				1 skin
		USA			Common boa				2 skins
7	Apr 25, 2005	USA	Brazil/Uruguay		Brazilian Black Tarantula			20	
		USA			Moth			20	
8	May 9, 2006	USA			Ocelot				1 skin
9	Aug 20, 2006	USA			Caiman				34 skin pieces and 50 sides
10	Dec 16, 2006	USA			Ocelot				1 skin
11	2007	Ecuador (Quito?)			beetles (many Bolivian)		450		
12	Jun 21, 2007	USA			Caiman			1	
13	Feb 05, 2008	USA			Llama				7 skulls
					Vicuna				3 skulls
14	Jun 28, 2008	USA			Caiman				21 large leather products, 13 small leather products

WILDLIFE CRIME INCIDENTS BOLIVIA									
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
15	Aug 01, 2008	USA			Caiman				14 large leather products
16	May 16, 2009	El Alto	Chimán forest in Beni		Caiman				skin pieces, 1 head, feet
					Jaguar				1 head, 1 skin piece, pieces of bone, bome amulets
					Lyrebird (exotic to Bolivia)				bones (quantity not specified)
17	Jun 16, 2009	USA			Caiman			9 skins	
18	Aug 01, 2009	USA			Caiman			4 sides and 4 tails	
19	Sep 05, 2009	USA			Maned Wolf				27 scientific specimens
20	Oct 02, 2009	USA			Caiman				73 skins
21	Dec 13, 2009	Ecobol		Japan and Canada	native butterflies			min. 200	
22	2010	17 de Julio market in El Alto			Andes Tree Iguana		240		
					Parrots/ parakeets		60		
23	Jan 13, 2010	Ecobol	Peru	Taiwan and China	Sea horses	at least 10			
24	Jan 16, 2010	USA			Caiman			1	
25	Feb 03, 2010	Ecobol?			Sea horses			3500	
26	Feb 17, 2010	Ecobol, El Alto airport	Santa Cruz	Germany	Beetles				2.752
					Butterflies				6.240
27	Mar 09, 2010	USA			Dwarf Caiman			1	
28	Mar 25, 2010	USA			Caiman			1	
29	Jul 03, 2010	USA			Ocelot				1 skin
30	Aug 20, 2010	USA			Caiman				83 small leather products
31	Sep 08, 2010	USA			Yellow-footed Tortoise				1 carapace

WILDLIFE CRIME INCIDENTS BOLIVIA									
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
32	2012	market survey, El Alto			Vicuña	365 kg vicuña fibre, 345 kg vicuña blankets			numerous scarves, ties and head scarves
					Armadillo			29 (7 of them elaborated into rattles)	8 pieces of skin
33	Feb 2012	Oruro			Birds			49 yacas	8 feather plumes with approx. 70 feathers each
					Black bird				1 feather plume
					Grey birds			1	
					Owl			1	
					Parrot			1	
34	Mar 27, 2012	USA			Caiman				2 skins
35	Jun 01, 2012	USA			Caiman				1 scientific specimen
36	Jun 17, 2012	USA			Oyster				1 jewellery
37	Jun 30, 2012	USA			Caiman				50 small leather products
38	Dec 2, 2012	USA			Jaguar				1 skull
39	Jan 18, 2013	USA			Great Horned Owl				24 feathers
					Scarlet Macaw				14 feathers

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
40	Feb 2013	Santa Cruz			Aquatic turtle		1		
					Blue-and-yellow macaw		4		
					Capuchin monkey		1		
					Green-cheeked parakeet		3		
					Parrotlet		75		
					Peach-fronted parakeet		2		
					Thrush		2		
					Tortoise		1		
					Turquoise-fronted amazon		1		
					Yellow-chevroned parakeet		9		
41	Feb 07, 2013	USA			Caiman				1,016 skin pieces
42	Apr 22, 2013	Puerto Pailas		Santa Cruz	Caiman		4936	511 skins	
43	Sep 21, 2013	Santa Cruz, Los Pozos, Ramada and Cumavilos markets	Peru and Ecuador		Blue-crowned parakeet, Monk parakeet, Red-masked parakeet, Yellow-chevroned parakeet		total 70 chicks in seizure, number per species not specified		
					Yellow-spotted Amazon River Turtle				522 eggs

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
44	Oct 5, 2013	USA			Caiman			2	
45	Aug 15, 2014	Ecobol		China	Wild forest cats			teeth from 6 cats	24 teeth
46	Aug 15, 2014	Ecobol		China	Jaguar				7 teeth
47	Aug 15, 2014	El Alto Airport		China	Jaguar				8 packages containing 40 necklaces with jaguar canines, 60 loose canines and at least 2 jars with canines
48	Nov 10, 2014	Hotel in Municipality of Tulio Febres Cordero			Macaws		7		
					Capucin monkeys		4		
					Yellow-crowned amazon		3		
					Toucan		1		
49	Nov 26, 2014	Oruro	Rivers Beni and Pando (Northeast of Bolivia)	Chile	Yellow-spotted Amazon River Turtle		41		

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
50	Dec, 2014	Home in Rurrenabaque			Deer				antlers (quantity not specified)
					Feline (cats), species not specified			2 dried heads	
					Forest animals				bones (quantity not specified)
					Jaguar				300 teeth + computer with photos of jaguar teeth hidden in jars of chocolate (quantity not specified)
					Vipers				skins (quantity not specified)
51	2014 or 2015	El Alto airport		China	Jaguar			9 teeth	
52	2014 or 2015	Ecobol		China	Jaguar			105 teeth (divided in 2 packages on 2 separate occasions)	
53	Feb, 2015	Cochabamba	Cochabamba Bolivia	China China China	"Pio" (bird, not sure which), possibly also suri.			2	total of 350 bird feathers in seizure
					Suri (Darwin's Rhea)				
					Armadillo				
54	Feb 11, 2015	Ecobol			Jaguar			2 teeth	
55	Feb 19, 2015	Ecobol			Jaguar			19 teeth	
56	Mar 18, 2015	Beijing Airport			Anteater		1		2 claws
					Jaguar				119 canines + 13 claws
57	Apr 09, 2015	Sucre			Monkey				

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
58	Aug 14-16, 2015	Urkupina			Armadillo			24	1 charango (string instrument), 4 paws
					Fox (Andean fox?)				17 tails, 7 paws, 1 snout. (total of 36 pieces, more not specified)
					Monkey				4 hands
					Snake				1 wallet
					Suri (Darwin's Rhea)				405 feathers
59	Nov 21, 2015	Argentina, La Falda	Bolivia		Viscacha				9 tails, 7 paws
					Wild cat				1 tail
60	2016	Department of Cochabamba			Tufted capuchin		1		
60	2016	Department of Cochabamba			Caimans,			not specified	
					Eagles,				
					Falcons,				
					Opossums				
					Monkeys		12		
					Parrots		37		
					Macaws		20		
Turtles		30							
Birds				feathers, quantity not specified					
Dried/stuffed animals, mostly birds and wild cats			473						

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
61	Jan 29, 2016	Mercado la Pampa, Cochabamba			18 species of wild animals, among them armadillos, parrots and cats			290	
					Andean flicker		6		
					Anteater		1		
					Armadillo		6		
					Deer			9 antlers	
					Hawk		2		
					Ocelot		1		
					Viscacha			12 whiskers and 9 tails	
62	Feb 06, 2016	Oruro			Armadillo		1		
63	Feb 13-14, 2016	Cochabamba			Deer			1 pair of antlers	
					Suri (Darwin's Rhea)			61 feathers	
64	Apr 11, 2016	Ecobol	Bolivia	China	Jaguar			105 canines	
65	Apr 23, 2016	Santa Cruz de la Sierra			Black-tailed marmoset (monkey)		1		
					Toucan		1		
66	Apr 28, 2016	Peru, Puno	Bolivia		Armadillo		7		
67	Apr 30, 2016	Ecobol	Bolivia	China	Jaguar			10 canines	
68	May 24, 2016	Ecobol	Bolivia	China	Jaguar			16 canines	
69	May 30, 2016	Rurrenabaque			Jaguar			7 teeth	
70	Jun 13, 2016	Ecobol	Bolivia	China	Jaguar			4 canines	
71	Jun 17, 2016	Ecobol	Bolivia	China	Jaguar			10 canines	
72	Jun 17, 2016	Ecobol	Bolivia	China	Jaguar			6 canines	
73	Jun 25, 2016	Ecobol	Bolivia	China	Jaguar			8 canines	

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
74	Aug, 2016	Urkupina			Armadillo				57 bodies, tails and paws
					Caiman			81	
					Ferret			1	
					Fox			1	24 paws and tails
					Viscacha				174 paws and tails
75	Aug 09, 2016	Pailón and Fernández Alonso in Dept. Of Santa Cruz		illegal pet markets in Santa Cruz	Birds and a breed of tapirs		~ 100		
					Armadillo, Capybara, Lowland paca (jochi), Several bird and fish species, Tapir, White-lipped peccary	Total of 200 kg meat in seizure, quantity per species not specified			
76	Oct 21, 2016	Ecobol	Bolivia	China	Jaguar				12 canines
77	Nov 09, 2016	Ecobol	Bolivia	China	Jaguar				10 canines
78	Dec 13, 2016	Santa Ana del Yacuma			Geoffroy's cat Jaguar				1 skull 24 skulls
79	Dec 28, 2016	Department of Cochabamba			Parrot		7		
80	Jan 10, 2017	Chile, route 15 which links Colchane (border town with Bolivia) with Huara	Bolivia	Chile	Parakeets		2		

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
81	Jan 26, 2017	Loreto, private home			Mono martín (squirrel monkey) Mono titi (squirrel monkey)		1 1		
82	May, 2017	La Paz		San Luis market (La Paz?)	Vicuña	13.34 kg fleeces			
83	May 14, 2017	Peru, markets of Puno and Juliaca	Peru and Bolivia		Andean condor Andean fox Armadillo Suri (Darwin's Rhea) Viscacha		2 2 4	23	wings (quantity not specified) 1 skin, heads, paws, tails (quantity not specified) 27 feathers, wings (quantity not specified) tails (quantity not specified)
84	Jun 01, 2017	Villa Tunari			Jaguar		1		
85	Jun 09, 2017	propiedad Santa Lidia, 3 km from Porongo			Common boa Jaguar Mono martín (squirrel monkey)		1 1 1		many skins of adult leopards
86	Jul 02, 2017	Control post on the Oruro-Cochabamba road		Cochabamba	Pink flamingo		10		
87	Aug 03, 2017	Tarija			Turquoise-fronted amazon		1		

WILDLIFE CRIME INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (kg)	Number (live)	Number (dead)	Quantity (parts)
88	Aug 10, 2017	Farmers market in Tarija			Parrots		54		
89	Aug 14-16, 2017	Urkupina			Anteater Armadillo Fox (Andean fox?) Frog Suri (Darwin's Rhea) Viscacha			5 6	11 tongues 1 snout 646 feathers (handed over voluntarily), one plume with several tens of feathers (seized) 47 paws and tails
90	Sep 04, 2017	Beni			Caiman River turtle				170 skins 5377 eggs
91	Sep 13, 2017	Beni			River turtle				50000 eggs
92	Jan 30, 2018	Santa Cruz, chicken restaurant			Elephant Giant armadillo Jaguar Marsh deer Ocelot (suspected) Viper species				5 figurines 185 canines, 8 molars, 2 claws, 3 skins 3 antlers 1 coat 2 (presumably skins)
93	Jan 30, 2018	Border Peru-Bolivia	Peru	Bolivia	Saffron finch		581		
94	Feb 26, 2018	Santa Cruz, Avenida Tres Pasos al Frente			Blue and Yellow Macaw, Red-fronted macaw, Chestnut-fronted macaw, monk parakeet, toucans		150		

SELECTION: JAGUAR SEIZURES/INCIDENTS BOLIVIA

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Number (live)	Quantity (parts)	Min. number of jaguars involved
16	May 16, 2009	El Alto	Chimán forest in Beni			1 head, 1 skin piece, pieces of bone, bone amulets	1
38	Dec 2, 2012	USA				1 skull	1
46	Aug 15, 2014	Ecobol		China		7 teeth	2
47	Aug 15, 2014	El Alto Airport		China		8 packages containing 40 necklaces with jaguar canines, 60 loose canines and at least 2 jars with canines.	26
50	Dec, 2014	Home in Rurrenabaque				300 teeth + computer with photos of jaguar teeth hidden in jars of chocolate (quantity not specified)	76
51	2014 or 2015	El Alto airport		China		9 teeth	3
52	2014 or 2015	Ecobol		China		105 teeth (divided in 2 packages on 2 separate occasions)	27
54	Feb 11, 2015	Ecobol		China		2 teeth	1
55	Feb 19, 2015	Ecobol	Cochabamba	China		19 teeth	5
56	Mar 18, 2015	Beijing Airport	Bolivia	China		119 canines + 13 claws	30
64	Apr 11, 2016	Ecobol	Bolivia	China		105 canines	27
67	Apr 30, 2016	Ecobol	Bolivia	China		10 canines	3
68	May 24, 2016	Ecobol	Bolivia	China		16 canines	4
69	May 30, 2016	Rurrenabaque				7 teeth	2
70	Jun 13, 2016	Ecobol	Bolivia	China		4 canines	1
71	Jun 17, 2016	Ecobol	Bolivia	China		10 canines	3
72	Jun 17, 2016	Ecobol	Bolivia	China		6 canines	2
73	Jun 25, 2016	Ecobol	Bolivia	China		8 canines	2
76	Oct 21, 2016	Ecobol	Bolivia	China		12 canines	3
77	Nov 09, 2016	Ecobol	Bolivia	China		10 canines	3
78	Dec 13, 2016	Santa Ana del Yacuma				24 skulls	24
84	Jun 01, 2017	Villa Tunari			1		1
85	Jun 09, 2017	Propriedad Santa Lidia, 3 km from Porongo			1	many skins of adult leopards	1
92	Jan 30, 2018	Santa Cruz, chicken restaurant				185 canines, 8 molars, 2 claws, 3 skins	47

WILDLIFE CRIME INCIDENTS SURINAME

Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (number live)	Quantity (number dead)	Quantity (parts)
1	Dec 16, 2003	USA	Suriname	USA	Caiman		1	
2	Jul 18, 2005	USA	Suriname	USA	Scarlet macaw			40 feathers
3	Dec 14, 2005	USA	Suriname	USA	Mussurana snake	1		
4	Mar 07, 2006	USA	Suriname	USA	Boa constrictor	3		
					Common iguana	860		
					Emerald tree boa	8		
					Red-footed tortoise	12		
5	2007	Kwamalasemutu, Suriname			Jaguarundi		1	skin, teeth and meat
6	Sep 2007	Reeberg, Suriname			Jaguar		1	
7	Oct 2007	Restaurant in Uitvlugt, Paramaribo			Jaguar		1	
8	Feb 2008	Lelydorp, Suriname	Suriname		Sea turtles			1800 eggs
10	Mar 28, 2008	USA	Suriname	USA	Black crowned parrot	14		
					Blue and yellow Macaw	10		
					Green honeycreeper	3		
					Yellow-headed Amazon	10		
11	Mar 29, 2008	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	81		
12	Apr 2008	Schiphol airport, Amsterdam	Suriname	South Africa	Green iguana	25		
					Spectacled caiman	5		
13	Jun 7, 2008	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	73		
14	Aug 12, 2008	USA	Suriname	USA	Bushmaster		1	

WILDLIFE CRIME INCIDENTS SURINAME								
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (number live)	Quantity (number dead)	Quantity (parts)
15	Sep 7, 2008	Schiphol airport, Amsterdam	Suriname	Netherlands	Cock-of-the-rock	2		
					Green aracari	2		
					Green-backed trogon	1		
					Purple-breasted cotinga	2		
					Red-rumped cacique	2		
					Yellow-rumped cacique	2		
16	Sep 28, 2008	Road from Apoera to Paramaribo, near Witagron			Jaguar		1	
17	April 23, 2009	Nickerie, Suriname	Guyana		Large-billed seedfinch	75		
18	April 26, 2009	Zanderij airport, Suriname	Suriname		Large-billed seedfinch	3		
					Chestnut-bellied seedfinch	2		
					Seedeater	1		
					Slate-coloured Seedeater	4		
					Violaceous Euphonia	8		
					Jaguar			skin, teeth and meat, quantity not specified
20	2009	Kwamalasemutu, Suriname			Jaguarundi		2	teeth and meat
21	2009	Kwamalasemutu, Suriname			Ocelot			quantity not specified
22	Mar 24, 2010	USA	Suriname	USA	Speckled worm lizard	1		

WILDLIFE CRIME INCIDENTS SURINAME								
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (number live)	Quantity (number dead)	Quantity (parts)
23	Mar 28, 2010	USA	Suriname	USA	Caiman	6		
24	Sep 13, 2010	Schiphol airport, Amsterdam	Suriname	China	Cat species		13	7 canines of cat species
					Crocodile			34 belts and 2 bags made of crocodile leather
25	May 2011	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	25		
26	Apr 2012	Suriname	Suriname		Green sea turtle			8000 eggs
27	Feb 2012	Erowarte, Suriname	Suriname		Sea turtles			5000 eggs
28	Oct 7, 2012	Schiphol airport, Amsterdam	Suriname	Netherlands	Hummingbird	10		
					Tanager	2		
29	June 2013	Suriname	Suriname		Jaguar		3	
30	Oct 10, 2013	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	20		
31	Nov 2014	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	5		
32	Feb 23, 2015	Marthastraat te Uitvlugt, Paramaribo			Ocelot		1	
33	Apr 2015	Uitvlugt, Paramaribo			Jaguar	1		
34	Apr 17, 2015	Santo Boma, Paramaribo			Jaguar		1	meat, quantity not specified
35	Nov 26, 2015	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	5		
36	Nov 2016	Boxel, Suriname			Jaguar	1		
37	Mar 2016	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	13		
38	Apr 2016	Schiphol airport, Amsterdam	Suriname	Netherlands	Chestnut-bellied seedfinch	6		
39	Jun 17, 2016	Schiphol airport, Amsterdam	Suriname	Netherlands	Chestnut-bellied seedfinch	5		
40	Nov 2016	Schiphol airport, Amsterdam	Suriname	Netherlands	Songbirds	10		
41	Mar 2017	Marowijne river, Suriname	Suriname		Sea turtles			23500 eggs
42	Mar 2017	Commewijne, Suriname	Suriname		Sea turtles			1210 eggs
43	Mar 2017	Plantage Johanna Margretha, Suriname	Suriname		Sea turtles			238 eggs

WILDLIFE CRIME INCIDENTS SURINAME								
Ref. No.	Date	Seizure/ incident Location	Origin	Destination	Species (common name)	Quantity (number live)	Quantity (number dead)	Quantity (parts)
44	Jun 2017	Schiphol airport, Amsterdam	Suriname	Netherlands	Wing barred seedeater	1		
45	Nov 2017	Afobakkaweg	Suriname		Puma		1	
46	Jul 09, 2017	Benzdorp	Suriname		Jaguar		1	
47	Jan 23, 2018	Zanderij airport, Suriname	Suriname		Jaguar			19 canines

SELECTION: JAGUAR AND OTHER CAT SEIZURES/INCIDENTS SURINAME							
Ref. No.	Date	Seizure/ incident Location	Species (common name)	Quantity (number live)	Quantity (number dead)	Quantity (parts)	Min. number of specimens involved
5	2007	Kwamalasemutu, Suriname	Jaguarundi		1	skin, teeth and meat	1
6	Sep 2007	Reeberg, Suriname	Jaguar		1		1
7	Oct 2007	Restaurant in Uitvlugt, Paramaribo	Jaguar		1		1
16	Sep 28, 2008	Road from Apoera to Paramaribo, near Witagron	Jaguar				1
19	2009	Zanderij, Suriname	Jaguar			skin, teeth and meat, quantity not specified	1
20	2009	Kwamalasemutu, Suriname	Jaguarundi		2	teeth and meat	1
29	June 2013	Suriname	Jaguar		3		3
33	Apr 2015	Uitvlugt, Paramaribo	Jaguar	1			1
34	Apr 17, 2015	Santo Boma, Paramaribo	Jaguar		1	meat, quantity not specified	1
36	Nov 2016	Boxel, Suriname	Jaguar	1			1
45	Nov 2017	Afobakkaweg	Puma		1		
46	Jul 09, 2017	Benzdorp	Jaguar		1		1
47	Jan 23, 2018	Zanderij airport, Suriname	Jaguar			19 canines	5

