



**UNVEILING THE
CRIMINAL NETWORKS
BEHIND JAGUAR
TRAFFICKING IN
SURINAME**

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COLOFON

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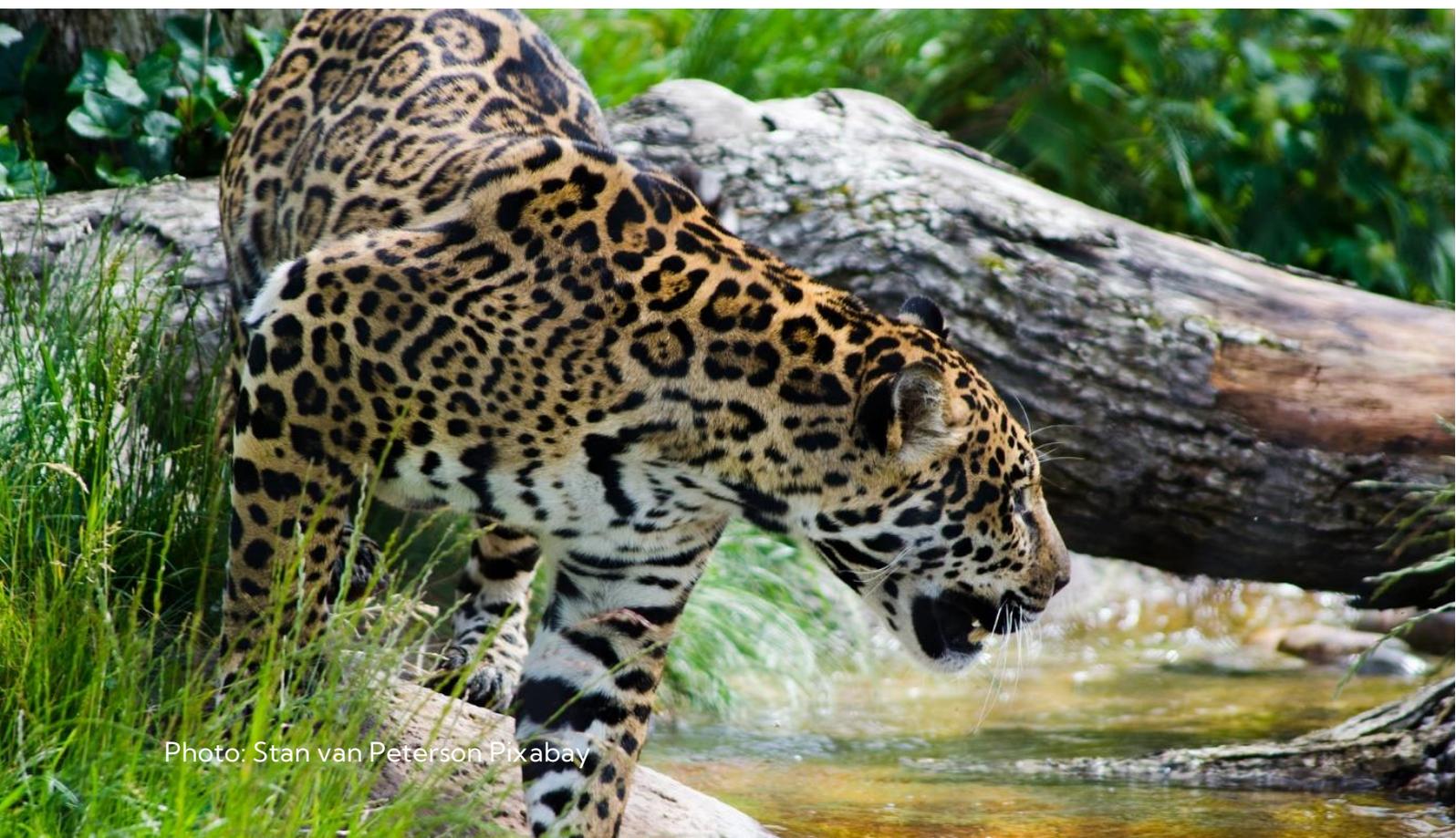


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EXECUTIVE SUMMARY

All across Latin America, jaguars (*Panthera onca*) are being seriously threatened by poaching and trafficking, impacting not only the jaguars themselves, but also the ecosystems they belong to, the local communities concerned, and, finally, environmental policy and regulation. Despite the fact that jaguars in Suriname are protected by the 1957 Hunting Act and CITES, there is evidence of an escalation in the killing of these big cats in recent years, resulting in declining populations¹.

In 2019 the IUCN National Committee of the Netherlands (IUCN NL) initiated 'Operation Jaguar', jointly with International Fund for Animal Welfare (IFAW) and Earth League International (ELI). An important aim was to expose the criminal networks behind the trafficking of jaguar parts and their *modus operandi*. In the context of this program, ELI conducted research investigations on jaguar poaching and trafficking in Bolivia, Ecuador, Peru, and Suriname.

ELI's intelligence-led investigations in Suriname began in 2017 and expanded in 2019 onwards as part of Operation Jaguar. The aim was to compile and analyze information on the trafficking routes, the main destinations, the key criminals and their networks, and the underlying drivers of the illegal jaguar trade.

A summary of the main findings is set out below. All findings are supported by evidence from ELI investigations and analysis, which is presented in the Confidential Intelligence Brief (CIB) produced by ELI. ELI carefully shares this information with law enforcement and government authorities.

Through the investigations, ELI identified over 20 Persons of Interest in Suriname, with 14 being Chinese

nationals, and the remaining comprising of Surinamese and European nationals, all Tier-1 international traffickers.²

ELI identified and researched two of the most powerful wildlife trafficking networks in Suriname titled SA1 and SA18. These networks are two of the most robust and resourceful wildlife trafficking networks in South America and are led by Chinese individuals operating transnationally from many different countries. **SA1 and SA18 also engage in a variety of other serious crimes, such as human smuggling, money laundering, and corruption, to achieve their aims.** This report provides detailed evidence and first-hand information regarding jaguar trafficking and Environmental Crime Convergence within and between these networks.

The key findings are (a full list can be found [here](#)):

Traders: Transnational Organized Crime (TOC) groups are driving the procurement and trafficking of jaguar fangs and parts in Suriname. These networks become increasingly sophisticated and powerful, engaging in other serious crimes, such as drug smuggling, money laundering, illegal mining, and human smuggling (convergence). There are many more traders involved than initially suspected, as these criminal networks operate and collaborate across multiple networks in Latin America.

Products: Jaguars are poached for their meat, fangs, bones, testicles, and skin. Jaguar fangs are typically disguised and sold in China as a replacement for tiger teeth, whose demand and price in China are even higher. Various traffickers identified by ELI refer to the jaguar as the "American tiger," and use jaguar fangs for medicinal properties, as well as to make pendants that Chinese nationals

wear to symbolize social status. Jaguar bone wine is also very popular among Chinese residing in Suriname, surrounding countries, and Europe, including the Netherlands. Jaguar paste is another reason for the demand. Jaguars are boiled for a week to produce the paste, which is used to treat arthritis pain, enhance general health, and increase sexual potency.

Buyers: Chinese, residing in both South America and China, are the major buyers of jaguar products from Suriname. Intelligence also revealed that jaguar products from Suriname are exported to meet the demand of Chinese residing in Europe, the Netherlands being one of the destinations.

Sourcing: Chinese buyers source fangs from local community members. ELI's intelligence confirms that jaguar parts are sourced mostly from the south Suriname region, typically at the border with Brazil and near gold mines. From there, jaguar products are often transported to supermarkets owned by Chinese nationals, where the animals are processed. This occurs primarily in Paramaribo. Chinese sellers have become increasingly careful, and most shops no longer display jaguar products. However, some Chinese gold shops with good connections to the authorities are still openly selling jaguar fangs.

Smuggling methods: We found that the transport of prohibited jaguar products from Suriname to China occurs using loopholes in the system, primarily through the Netherlands and, less often, the USA. Informants identified by ELI stated that *"The Amsterdam airport is not like the USA as all checked luggage for transfer passengers will go from one plane to the next directly in the airport without going through X-Ray machines"*

like in the USA. So Amsterdam is totally lax as we can hide the illegal stuff like teeth in the checked luggage and they will surely pass as well in Amsterdam on our way to China. Some Chinese from Wenzhou here use this loophole to smuggle over 1 million USD or Euro cash into China via Amsterdam, not to mention teeth."

As we have seen in many other jaguar range states, the success of intervening in the illegal trade and protecting jaguar habitats in Suriname often occurs through the efforts and tenacious work of dedicated individuals, researchers, civil society, law enforcement officials, and park ranger authorities. However, despite their commitment to protecting the majestic jaguar, much more is needed. To effectively tackle the poaching and trafficking of jaguars, a list of [recommendations](#) to different groups of stakeholders has been made.

Key is the implementation of the [National Jaguar Conservation Action Plan](#). We believe that the government of Suriname should support the strategies and activities defined in this plan, with a focus on protecting key habitats from encroachment, mining, and infrastructure projects that impact the integrity of and connectivity between nature conservation areas.

Civil society and donors should invest in further research and intelligence-led activities to understand the scale, trade dynamics, and convergence of criminal activities present within the jaguar trade. This is key to dismantling criminal networks more effectively, instead of only intervening at lower levels of the supply chain. It is only through intelligence-led work, such as that of ELI, that Tier-1 environmental criminals,

¹ Reaction from Schiphol Airport regarding this statement: "All baggage coming from Suriname and transferring through Amsterdam Airport Schiphol is 100% screened for security purposes."

wildlife traffickers, and their networks can be identified and brought to justice.

Furthermore, the government of Suriname should strengthen the detection and interdiction of poaching and trafficking of jaguars and other wildlife by allocating sufficient financial- and human resources to relevant law enforcement agencies and ensuring they receive adequate training. The training component should consider that there is a strong and complex convergence between the trafficking of jaguars and other serious crimes. This implies that traditional law enforcement approaches that focus on isolated illegal businesses are no longer appropriate for understanding and dealing with the increasing complexities of organized crime.

Additionally relevant is the need for neighboring countries to improve information sharing and collaboration in order to enhance coordination between governments and international bodies working on combating other criminal activities, such as illegal mining, narcotics, human trafficking, document forgery, and money laundering.



1. INTRODUCTION

Infrastructure developments and the influx of Chinese companies in recent years have been the major indirect drivers of the drastic increase in the illegal jaguar trade. As a result of these influences, previously inaccessible wilderness areas have been opened up and a new international market interested in the jaguar has been created. Although there is also a domestic market for jaguar products, the demand for the animal's fangs and bones has primarily been from Asian countries. A reliable estimate of the number of jaguars in Suriname does not currently exist, but evidence suggests that increased poaching is taking a toll and resulting in declining populations³.

1.1 Objectives and Scope

In 2018, IUCN NL commissioned a research report⁴ on the poaching and trafficking of wildlife in Bolivia and Suriname. The report showed a clear spike in reports of jaguar trafficking in Bolivia from 2014 onwards, fueled by Chinese individuals and/or their networks. In response to our findings in Bolivia and Suriname, IUCN NL, the International Fund for Animal Welfare (IFAW), and Earth League International (ELI) initiated Operation Jaguar in 2019. The project aimed to tackle poaching and the illegal trade of jaguars in Bolivia, Ecuador, Peru, and Suriname.

In this context, ELI has been collecting information on the trafficking of jaguar parts in Suriname, researching and identifying the key players and their modus operandi, trafficking routes, and destination countries, with the aim of increasing public awareness, providing relevant stakeholders with updated data, and supporting the work of law enforcement and governmental authorities to disrupt the illegal trade.

Chapter Two of this report provides a general overview and context of Suriname and illegal wildlife trafficking (IWT) based on open-source information. This is primarily taken from the 2019 study; 'An assessment of wildlife poaching and trafficking in Bolivia and Suriname', a report commissioned by IUCN NL with support from the Dutch Ministry of Foreign Affairs.

Chapters Three and Four present the key findings from ELI's intelligence-led investigation into the trafficking of jaguar parts and fangs in and from Suriname, as well as, the convergence of this crime with other serious crimes. Chapter Five provides recommendations to a variety of stakeholders that should be involved in tackling the issue.

1.2 Methodology

Beginning in 2019, ELI undertook multiple investigative missions to Suriname as part of Operation Jaguar. The focus of the intelligence-led operations was to unveil the central nodes, mechanisms, and structure of the entire criminal supply chain, with a bottom-up – top-down approach focusing on the illegal wildlife goods providers, the traders, the transporters, and the sellers in China.

The ELI team conducted a series of activities aimed at collecting updated and novel information on the illegal supply chains and the transnational wildlife crime networks. The activities included field interviews, field research, various surveillance operations, the use of investigators, professional crime analysis, and geospatial mapping. Over the course of its investigative field work, ELI collected intelligence and monitored the criminal targets and their networks, including remaining in close connection with local sources. ELI's analytical team then synthesized all relevant evidence

and data to produce various analytics reports, including a Confidential Intelligence Brief (CIB). All findings in the CIB on Suriname are based on first-hand evidence collected through ELI's fieldwork. This includes photos, videos, documents, financial information, fake and real certifications, social media accounts, phone numbers, addresses, emails, and other materials to target the top-tier jaguar traffickers and their networks.

The CIB is the most critical output of ELI's work, delivering finished, actionable, and cohesive intelligence. It contains the analysis of wildlife trafficking patterns, the modus operandi of the criminal network involved, the names of key players, and a broader mapping of the criminal networks.

ELI carefully prepares and shares its CIBs with relevant law enforcement bodies, governmental organizations, and stakeholders to directly fill information gaps and enhance the capacity of authorities to activate justice. This may include engaging in arrests and the prosecution of traffickers and Tier-1 middlemen, the improvement of policy and enforcement activities, and even enhanced cooperation amongst governmental agencies.



Photo: Britta Jaschinski, jaguar skull

2. SETTING THE SCENE: SURINAME

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 roughly 622,000, the vast majority of whom live in the capital, Paramaribo, or along the coast. Paramaribo is the largest city with a population of 223,757. Suriname is one of the least densely populated countries in the world, with just four people per square kilometer.⁵ The interior is inhabited by Indigenous (Amerindian) and Maroon people. Traditionally self-sufficient hunters, fishermen, and farmers, they have more recently become increasingly involved in mining to earn their livelihoods and have been forced to turn to the coastal zone for supplies. Parts of the country’s interior is inhabited by migrants from Brazil engaged in gold mining.

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.⁶ Suriname stands out as one of only eleven countries in the world known for high forest cover and low deforestation rates (HFLD). Suriname’s forests form part of the Guiana Shield tropical forest ecosystem, one of the largest contiguous and relatively intact forested eco-regions in the world. At a local and global level, these forests provide important goods and services, including income and food security for forest communities, as well as climate mitigation and biodiversity preservation for society at large.

2.1 Political situation

Suriname is a constitutional democracy that holds generally free and fair elections. In elections held in May 2020, the administration of President Dési

Bouterse was defeated by the Progressive Reform Party (VHP) led by Chandrikapersad Santokhi, who was elected president by the National Assembly in July. Ronnie Brunswijk, the powerful leader of the General Liberation and Development Party (ABOP), was selected as vice president. The country’s new leaders have promised to tackle graft and abuses of state power. The public prosecutor’s office established a dedicated anti-corruption unit, and graft investigations resulted in detention orders for several high-ranking officials from the Bouterse government.

2.2 Indigenous and Tribal People

In Suriname, there are four Indigenous and six Maroon peoples who together inhabit about 250 villages. According to the latest census, the Indigenous and Tribal Peoples (ITPs) make up 20% of the total Surinamese population. Since time immemorial, the interior of Suriname has been inhabited by the Trio, Wajana, Kari-na and Lokono Indigenous People. On the part of the Tribal people, these are the Aluku, Okanisi, Paamaka, Saamaka, Matawai and Kwinti.

The Tribal people are descendants of the enslaved Africans who fled the plantations and made peace treaties with the Dutch colonial rulers in the 18th and 19th centuries. These treaties stipulated, among other things, that they were allowed to continue remaining where they were.

Following these peace treaties, the development of Surinamese law has failed to include the customary law of ITPs, resulting in two legal systems. A major difference between the two legal systems is that Surinamese law is in theory based on the individual, while customary law is based on collectivity. The two legal systems have developed independently of each other.



Photo: Britta Jaschinski, Saamaka villagers

From the second half of the 20th century, the government has made many concessions for the exploitation of natural resources, which ignores the customary law and beliefs of ITPs. The inland residents depend on the forest for hunting, fishing, agriculture, housing, medicinal plants, and drinking water. They regard the forest as the fundamental source of their physical, cultural, and spiritual existence. Their religious and spiritual identity is inseparable from the forest, as is their productive capacity.

Despite the critical importance of the forests for the ITPs, the land in Suriname has long been threatened by uncontrolled, often illegal, logging and mining activities. One of the biggest obstacles to adequately combatting these activities is that the rights to the land of the ITP, who have inhabited and used this area for centuries, have not yet been legally recognized.

A law on Collective Property Rights of ITPs that includes the provisions to give

legal personality to ITPs and full authority to manage and control their territories is currently under discussion in the parliament.

2.3 Economic developments

Suriname is a small, natural-resource-rich, upper-middle-income country in South America. The economy is driven by its abundant natural resources, with mining accounting for nearly half of the public sector revenue and gold representing more than 80 percent of total exports. Strong economic growth, averaging 4.4%, was recorded from 2001 to 2014, mainly due to favorable commodity prices. This made the country one of the fastest-growing economies in the LAC region, with declining poverty rates. However, beginning in 2015, Suriname's economy contracted, and the budget and balance of payments came under severe distress. Government revenue from mining fell sharply, foreign reserves were drained, and GDP growth contracted. By 2020, a severe fiscal and balance of payments crisis began to unfold in Suriname.⁷

The extractives sector has historically attracted significant foreign direct investment, but numerous factors negatively impact the investment climate as a whole. These factors include an unclear process for awarding concessions and public tenders, corruption, institutional capacity constraints, and a lack of overall transparency.⁸

2.4 Oil and Gas

In January 2020, Apache and Total announced a "significant oil discovery" off the coast of Suriname, followed by similar discoveries in April 2020, July 2020, and January 2021. In December 2020, Malaysian national oil company Petronas and ExxonMobil announced the discovery of hydrocarbons in Suriname. Experts estimate that it will

take 5–10 years to begin offshore oil production, assuming world oil prices remain favorable. In 2020, the CEO of state-owned oil company Staatsolie estimated that the government of Suriname could earn \$10–\$15 billion over the course of 20 years if production reaches similar levels to those of the neighboring country Guyana.⁹ The oil industry can deliver an economic boost for Suriname, but can also result in significant environmental and social impacts and risks. More recently, The Staatsolie Maatschappij Suriname has indicated that there will be no offshore oil production in Suriname before 2027.¹⁰

2.5 Mining and logging

Illegal extraction of natural resources has a negative impact on wildlife in Suriname, as on the wider Amazon region. In the last two decades, Suriname's interior has become much more accessible. Logging infrastructure has opened the forest to hunters and miners who sometimes fail to abide by the law¹¹.

Gold mining is the driving force of the Surinamese economy. U.S.-based Newmont Corporation and Canada-based IAMGOLD – the two major multinational gold companies in Suriname – continue to be the key players in Suriname's gold mining sector, generating significant revenues for the government.¹²

On paper, Suriname produced about 32,800 kilograms of gold in 2019, and more than half of it came from artisanal and small-scale mining. Gold accounts for more than 80 percent of Suriname's income from exports. Throughout the rainforest, many communities depend on mining, including the Maroons, the descendants of African slaves who escaped from Dutch plantations on the coast and settled in the interior, and who have a strong cultural connection with mining and gold. The spike in gold prices

at the beginning of the 21st century has led to a rapid expansion of the gold mining industry, especially in Maroon territory.¹³

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. 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.¹⁴



Photo: Britta Jaschinski, mining in Brownsberg Suriname

unable to efficiently extract the gold lock. The country uses over 50 tons of mercury a year, and experts believe all of it enters the country illegally. For every kilogram of gold that is extracted, roughly three kilograms of mercury is used, most of which is released into the fragile Amazon ecosystem. Mercury pollution is rampant throughout the country, from the capital city on the coast to remote river basins in the interior. Without assistance or opportunities provided by the government, small-scale miners must often choose between supporting mercury trafficking networks or losing their livelihoods.¹⁵

Despite the prevalence of gold mining, Suriname is still considered to have a high forest cover (approximately 93%) and low deforestation rates. However, Suriname's timber production has surged in the past decade, from 250.000 m³ in 2010 to 1.085.000 m³ in 2018. In recent years, deforestation rates increased from 0.02% to 0.05% per year and the upward trend continues to accelerate. Considering a linear increase, the annual deforestation rate may exceed 0.5% around 2025. By then, the total forest cover will have fallen below 90%.¹⁶ There is serious concern that conventional, unsustainable logging methods (estimated to make up 50% of all logging) are causing forest degradation, which has major, often irreversible, impacts on the environment, wildlife, carbon emissions, and the livelihoods of ITPs.

In the late 1990s, it was estimated that half to a third of actual volumes harvested were under-reported and that logging companies frequently evaded royalty payments and other taxes. Illegal logging and trade remain a growing problem, as experts estimate that 20–25% of logging in Suriname occurs illegally. Transporting, processing, and exporting illegal (unregistered) timber and fraud with timber tags appear to be common. Generally, illegal timber is legalized somewhere in the supply chain. Inspections of timber shipments transported to town are reasonably adequate, however, there are insufficient inspections in the field to verify whether the numbers of logs included in the cutting register match those of trees felled in the forest.¹⁷

Timber logging and trade in Suriname are dominated by Asian companies (primarily Chinese and Malaysian). Asia is also the key recipient of Suriname's timber. In 2018, 97% of Suriname's timber (consisting almost entirely of round wood) was exported to Asia (65%



Video still by Tom Laffay, artisanal gold mining

to India, 21% to China, and 7% to Singapore).

While illegal logging occurs throughout Suriname, a few hot spots of illegal logging and trade have been identified through previous work, namely west Suriname, in the direction of Apoera; areas along the road to Atjonie, in central Suriname; and Northeast Suriname, near Patamacca. Workers employed by logging and mining companies are also often 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") of wildlife which can be killed. Jaguars have been reported to come into conflict with residents of the camps and in some cases have been killed, purportedly out of self-defense or in retaliation for livestock killings. Data remains limited.

The interior will likely continue to be opened for exploitation. Several experts 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 these 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. However, only time will tell if they shall remain untouched.¹⁸

2.6 Legal framework

The Hunting Act of 1954¹⁹ and the implementing legislation (Hunting Decree 2002²⁰) determine which species of wildlife may be hunted and when this can occur as elaborated in the Hunting Calendar²¹. 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 (*Panthera onca*) 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, deliver, transport, import, or export protected wildlife species and parts and products made thereof.



Photo: Britta Jaschinski, logging in Suriname



Photo: Britta Jaschinski, arrest of poacher



Photo: Britta Jaschinski, officer handing out hunting licenses

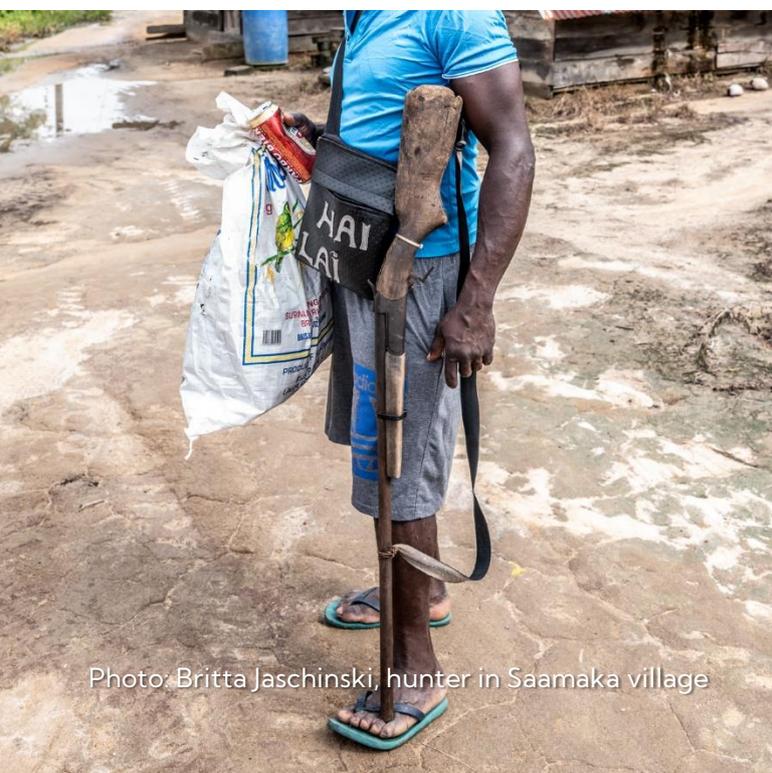


Photo: Britta Jaschinski, hunter in Saamaka village

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, the common practice of taking wild meat (bushmeat) killed in the southern zone to the city to sell at commercial volumes does not have a basis in the law.

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. Based on Articles 47 and 48 of the Environmental Framework Act²² violations of the Hunting Law are considered criminal offenses punishable by a maximum penalty of six years for intentional violations and four years for non-intentional violations.

Prosecutions of wildlife crimes appear to be rare, however, based upon media reports, most offenders are not brought to court and are simply required to pay a fine (even in serious cases such as the smuggling of 19 jaguar teeth by three Chinese individuals in January 2018). In addition to a small fine, violators (usually hunters) have their guns and their kills confiscated.

The CITES Secretariat has classified Suriname's implementing legislation as Category 2. This means the legislation fails to meet all 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 (last updated in June 2022), Suriname has enacted new CITES legislation which was submitted to the Secretariat in November 2017 for analysis. Discussions on how to address remaining gaps are ongoing, and revised legislation is to be developed to address identified gaps.²⁴

During the IUCN World Conservation Congress from 3 to 10 September 2021, members of the IUCN NL Operation Jaguar team gave presentations to a global audience of conservationists and policymakers about the threats to the jaguar and its symbolic and traditional value. Operation Jaguar partner SAVIA from Bolivia played an important role in the submission and approval of IUCN Motion 106 for the protection of the Jaguar in the framework of the IUCN. This motion calls on the countries in the jaguar's distribution range, from the United States to Argentina, to commit to conserving the jaguar as a focal, emblematic species of America. In addition to that it requests the IUCN Species Survival Commission to update the jaguar's conservation status regarding its threat category, from 'Near Threatened' to Vulnerable.²⁵

2.8 (Illegal) wildlife trade

Suriname has a liberal regime that facilitates the easy export of wildlife with the country ranking among the biggest exporters of live, wild-sourced reptiles and birds from Latin America. A UNEP-WCMC analysis of Suriname's legal CITES trade data²⁶ shows that between 2005 and 2014:

2.7 Global conservation policies

On a global level, important decisions concerning the jaguar were adopted at the 18th meeting of the Conference of the Parties to CITES held in Geneva, Switzerland in August 2019. These decisions encourage CITES parties and relevant stakeholders to implement four main actions:

- 1) recognize and raise awareness about the jaguar as a flagship species so that its protection becomes a priority;
- 2) adopt legislation and enforcement controls to eliminate jaguar poaching and the illegal trade;
- 3) promote jaguar habitat conservation;
- 4) share experiences and knowledge to combat illegal trade.²³

Photo: Britta Jaschinski, bushmeat being sold at the market in Paramaribo

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, 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 financial value of Suriname's CITES exports between 2005 and 2014 was USD 2.4 million per year. Live birds had the highest total estimated value: (Black-headed parrot (*Pionites melanocephalus* – USD 0.6 million per year), Blue and yellow macaw (*Ara ararauna* – USD 0.4 million per year) and Orange-winged amazon (*Amazona amazonica* – USD 0.3 million per year) were the most valuable species in the trade.²⁷

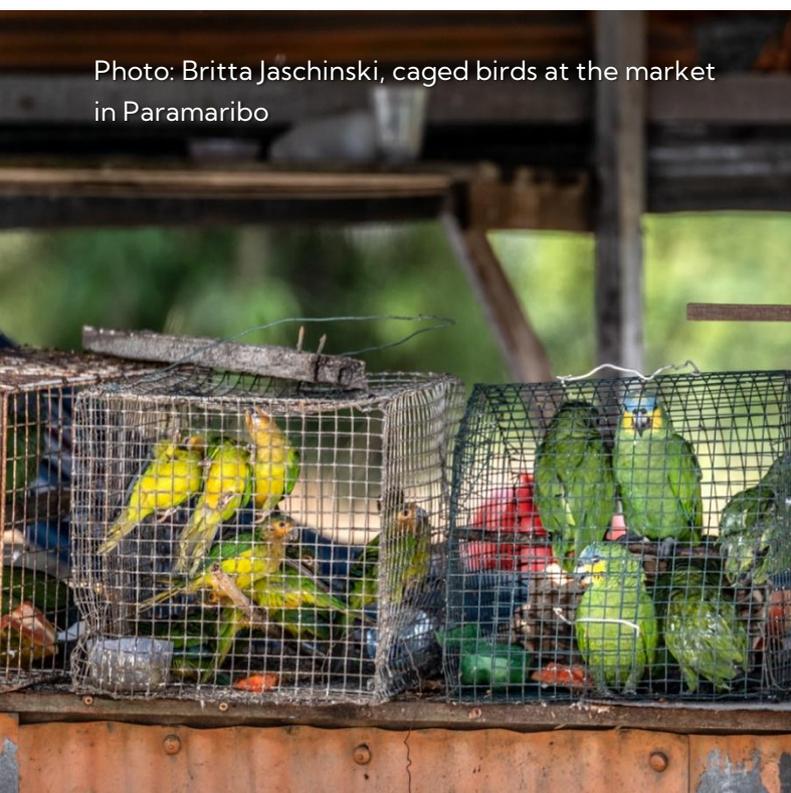
Whereas the legal export of wildlife appears to be sufficiently regulated, the hunting and capturing of wildlife in the interior, as well as the smuggling of wildlife across country borders, is inadequately controlled due to a lack of capacity and resources. Animals caught illegally (e.g. in the closed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

An analysis of wildlife crime incidents reported in the media between December 2003 and January 2018 identified 47 incidents implicating Suriname as a source, destination, or transit country for illegal wildlife.²⁸ Available information represents an incomplete picture, but provides the following insights:

1. Frequent seizures, most of them at Schiphol Airport, of songbirds hidden in passengers' 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 substantial mortality rate. Unfortunately, penalties for animal welfare violations are much lower than for the trafficking of protected species. The records show a total of 362 songbirds seized between 2008 and 2017, of which:

- 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

Photo: Britta Jaschinski, caged birds at the market in Paramaribo



illegal cross-border trade in the Guianas;

- 232 birds were of unidentified songbird species.

2. 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 only the tip of the iceberg.²⁹



Photo: Britta Jaschinski, smuggled parrot Schiphol

3. JAGUAR TRAFFICKING IN SURINAME

The jaguar is listed on CITES Appendix I and is classified on the IUCN Red List as 'Near Threatened,' with subpopulations outside of Amazonia considered to be the most isolated and threatened.³⁰ It is believed that the global population has declined by about 25% in the past 25 years, however, scientists have different estimates about the size of the global jaguar population³¹. A study by De la Torre et al (2018) estimated the global population of jaguars to be 64,000 individuals³², while Jędrzejewski et al (2018) estimated there are 173,000 (138,000±208,000) jaguars left in the wild, mostly concentrated in the Amazon basin.³³ Due to Suriname's vast forest cover, jaguars are distributed contiguously throughout the territory. Based on extrapolations, the national estimated average density is 2.2 jaguars per 100 km², but there have not yet been any field studies to measure population densities or trends.³⁴

The jaguar is a charismatic, almost mystical animal for many indigenous cultures, having been deified by the great pre-Hispanic cultures of Mesoamerica and South America. It is an emblematic species; in conservation science, it is considered a "flagship" or "umbrella" species. Its role in tropical and subtropical ecosystems is fundamental, serving as a regulator, controlling the densities of species, both terrestrial and aquatic, as well as contributing decisively to the dynamics of the composition and functional balance of ecosystems. It is a top-level predator and requires large expansions of natural ecosystems to thrive.

With a central plateau region rich in savannas and swamp forests, a highland region covered in forested tropical vegetation, and an extremely low population density, Suriname is the perfect habitat for these big cats. 93% of

Suriname is covered by forests, providing these big cats with the extensive wilderness areas needed for their survival. In addition to the availability of extensive wilderness areas, Suriname's indigenous and local community's strong respect, and fear of these majestic animals, as well as for their smaller relatives such as the ocelot, the jaguarundi (*Herpailurus yaguarondi*), and the oncilla (*Leopardus tigrinus*), is a positive factor. Historically, it is rare for these cats to be threatened by local people, who have played key roles in facilitating their conservation and protection.³⁵

Despite the fact that jaguars are protected by the 1957 Hunting Act and CITES, there is evidence of an escalation in the killing of these big cats in recent years, resulting in declining populations³⁶. The decrease in the number of jaguars is linked to infrastructure developments within Suriname that are driven by trade and transportation, as well as the search for valuable extractive resources such as timber, gold, and oil. The new infrastructure development has opened natural areas that were previously isolated from the civilized world, increasing the exposure of jaguar habitats to poaching. As a result, unintentional conflicts between jaguars and local miners/residents have ensued, as many rural communities and illegal mining sites are located near wilderness areas. Often, the first impulse of these individuals is to take up arms for fear that the jaguars will kill their livestock, dogs or even a human life. Although individuals in these areas have coexisted peacefully with jaguars for many generations, the knowledge of "how" to do so without conflict is being lost over time.

Furthermore, due to booming infrastructure projects, Suriname has seen the arrival of the so-called "New

Chinese." This term refers to the Chinese nationals that moved to Suriname towards the end of the 20th century, distinguishing them from the initial wave of Chinese immigrants in the mid-19th century. The "New Chinese" who moved to Suriname were attracted by the mineral and wood business within the country, seeing an opportunity to profit as China's demand for these products grew.

The migration of these 'new Chinese' had an impact on jaguar poaching and – trafficking, influenced by the role tigers and the products derived from it play in traditional Chinese medicine and – culture. Since ancient times, wildlife parts derived from certain animal species have been believed to have medicinal value and healing qualities. For example, in Asian countries tiger bones have always been highly revered as a cure for a variety of illnesses, ranging from malaria to arthritis. However, tigers are in danger of extinction, and the situation is so serious that it is almost impossible to obtain products from this animal. The Asian black market has now focused on finding an alternative. More and more, lion bones and the body parts of the jaguar have become the replacement for tiger products. The jaguar has become commonly called "American Tiger" in Asian countries, as jaguar fangs are difficult to differentiate from those of the tiger. Other parts of the jaguar, such as its meat, bones, skin, penis, or testicles, are also traded and used for medicinal purposes.

In recent years, several incidents, dating back to 2007, were identified of jaguars being killed and/or trafficked for their parts (see 3.2). Other wild cat species like jaguarundi, ocelots, and the puma (*Puma concolor*), are also being targeted but to a lesser extent. There is significant evidence of trafficking to China. In 2010, two passengers traveling to China from Suriname were arrested at Amsterdam's

Schiphol Airport for smuggling taxidermy crocodiles and other crocodile products and 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 Airport³⁷.

Recent investigations carried out by non-governmental organizations and acknowledged by Suriname's authorities in their response to CITES' Notification 055/2020 have suggested that jaguars are being trafficked to produce "jaguar paste". The paste is said to be produced by boiling down an entire jaguar carcass in large pans for 5 days, skimming off the top, and letting it simmer for an additional 2 days. This process creates a black, glue-like substance that resembles molasses; it is used for arthritis pain, enhancing general health, and increasing sexual potency. A jaguar is processed into approximately 20–30 tubes that respondents explained could be placed into the hold luggage of individuals going back to China and sold amongst closed, friend-to-friend networks.³⁸

One of the informants identified by ELI also revealed that jaguar bone wine is popular among the Chinese in the region. ELI's source has a close relationship with a famous Chinese jaguar wine brewer in the region, who can easily obtain entire jaguar skeletons that are later processed to prepare jaguar bone wine and paste. An additional source explained the mechanism with which the jaguar bodies are delivered and then dismembered by the brewer. Typically, the jaguars are cut into pieces and buried along with the fangs in the ground for 45 days until the body is dry. Once dried, the fangs are removed, and the bones are used to make the wine. The fangs are then sold or brought to China to be given to friends.

Evidence also reveals that jaguar bone wine is exported to Europe, as the demand from Chinese residing there is quite high. Based on ELL's research and analysis over the past 5 years, including interviews with informants and sources as recently as 2023, the Netherlands is one of the main destinations of these products, with Chinese Dutch residing in the country being the main buyers.

Suriname's National Jaguar Conservation Action Plan

The threat to this majestic animal is very clear and local organizations in Suriname have joined hands to create a National Jaguar Conservation Action Plan, which was finalized in October 2022. The development of an Action Plan has been an important process to build consensus among the different stakeholders on the priorities and actions needed to protect the jaguar. This ensures that the trafficking of these species is an integral part of national conservation plans and is not just the task of the police and the judiciary. It contains a comprehensive series of actions, including those targeting international demand for wildlife, sharing information on various levels, and supporting law enforcement. The agreed vision statement for this plan is *"Suriname conserves viable populations of jaguars across the country, through a collective effort of all Surinamese people that addresses the critical threats to the species"*.

Identification of these 4 clusters led to the development of six conservation strategies

- Targeting international demand for wildlife
- Supporting law enforcement
- Managing human-jaguar conflict
- Promoting wildlife farming
- Developing green economies
- Raising awareness

The Action Plan defines SMART objectives for each strategy line, for example:

- By 2027, there is an 80% reduction of jaguar products in online markets and stores in Suriname
- By 2027, 50% of law enforcement agents in Suriname are aware, equipped, trained and motivated to disrupt the trafficking of jaguar
- By 2027, the government has approved the policy for new infrastructure and extractive business contracts to have and implement explicit jaguar conservation standards
- By 2027, cooperation with SUDWEN (South America Wildlife Enforcement Network), UNODC, and Interpol will be strengthened to support Suriname's efforts in protecting jaguars;
- By 2027, there is more capacity to detect wildlife crime and prosecute and sanction wildlife criminals.

3.1 Key Findings

A summary of the main findings from intelligence-gathering investigations in Suriname is provided below. All findings are based on first-hand evidence collected through ELI's investigative fieldwork and through criminal analysis, which has been shared in detail by the ELI team through the form of CIBs and analytical reports.

Since the onset of its work in the region, ELI had identified over 20 Persons of Interest in Suriname, with 14 being Chinese nationals, and the remaining comprising Surinamese and European nationals, all Tier-1 international traffickers. ELI identified and researched **two of the most powerful wildlife trafficking networks in Suriname which it has titled SA1 and SA18**. These networks are two of the most robust and resourceful wildlife trafficking networks in South America and are led by Chinese individuals operating transnationally from many different countries. SA1 and SA18 also engage in a variety of other serious crimes, such as human smuggling, money laundering, and corruption, to achieve their aims.

- **Products:** Jaguars are poached for their meat, fangs, bones, testicles, and skin. Jaguar fangs are typically disguised and sold as a replacement for tiger teeth, whose demand and price in China are even higher. Various traffickers identified by ELI refer to the jaguar as the "American tiger," and use jaguar fangs for medicinal properties, as well as to make pendants that Chinese nationals wear to symbolize social status. Jaguar bone wine is very popular among Chinese residing in Suriname, surrounding countries, and Europe, including the Netherlands. Evidence reveals that "jaguar paste" is also a popular product, used to treat arthritis pain, enhance general health, and increase sexual potency.



Photos obtained by ELI's team

- **The demand:** Chinese attribute medicinal powers to jaguar parts, which they believe are unable to be cured by other traditional Chinese medicines. They also produce jewelry made with jaguar parts (such as pendants and amulets) to symbolize social status



Photo: © ELI, jaguar tooth jewelry

- **Buyers:** Chinese both residing in South America and China are the major buyers of jaguar products from Suriname. Chinese in South America may operate as poachers and middlemen in the selling of jaguar products, while others may simply be customers. ELI's intelligence also revealed that jaguar products are exported to meet the demand of Chinese residing in Europe, the Netherlands being one of the main destinations.
- **Traders:** Transnational Organized Crime (TOC) groups are driving the procurement and trafficking of jaguar fangs and parts in Suriname. The Chinese involved in jaguar trafficking in Suriname are mainly from Fujian, a province on the southeastern coast of China. There are many more traders involved than ELI initially suspected, as these criminal networks operate and collaborate across multiple networks in Latin America.
- **Sourcing:** Chinese buyers source fangs from local community members. Intelligence confirms that jaguar parts are sourced mostly from the south Suriname region, typically at the border with Brazil and near gold mines, such as the south of the Afobaka reserve. Some of ELI's sources also reported sourcing occurring in West Suriname.
- **Hotspots:** Jaguar products are often transported to certain Chinese supermarkets where the animals are processed. This occurs primarily in Paramaribo, the capital and business center of Suriname. Chinese sellers have become increasingly careful, and most shops do not display jaguar products. However, some Chinese gold shops with good connections to the authorities are still openly selling jaguar fangs.
- **Pricing:** Jaguar fangs and meat prices increased during the past 4 years. In 2021–2022, the price at source (from locals) increased due to stricter enforcement of the laws. Thus, due to the increasing risks related to the illegal jaguar trade, the final sale price has increased for both small jaguar fangs and fangs gilded with gold. We refrain from including specific prices in this report.
- **Smuggling methods:** Smuggling from Suriname to China generally happens by air via the Netherlands, and, less often through the United States. Police controls at airports in Suriname have been getting tighter in the past 3–4 years.
 - 4-Prohibited jaguar products within Suriname are transported through distribution buses and occasionally wood logging trucks. Sometimes jaguar parts are hidden inside tree logs and shipped to China.
 - 5-Jaguar products are also smuggled on large container boats managed by Chinese shipping companies. Traffickers also use smaller boats in unchecked riverways to smoothly smuggle jaguar products across different parts of South America including Guyana, Suriname, and French Guiana. These transit routes are established through criminal networks' close relationships with the police and Surinamese Customs, whom they bribe assist with smuggling or simply disregard their illicit activities.
- **Schiphol Airport:** We found that transport of prohibited jaguar products from Suriname to China happens using loopholes in the system and through the Netherlands and, less often, the

USA. Informants stated that *"The Amsterdam airport is not like the USA as all checked luggage for transfer passengers will go from one plane to the next directly in the airport without going through X-Ray machines³⁹ like in the USA. So Amsterdam is totally lax as we can hide the illegal stuff like teeth in the checked luggage and they will surely pass as well in Amsterdam on our way to China. Some Chinese from Wenzhou here use this loophole to smuggle over 1 million USD or Euro cash into China via Amsterdam, not to mention teeth."*

- **Convergence:** There is extensive evidence of the way in which the transnational organized crime networks operating in Suriname also engage in other serious crimes, such as drug smuggling, money laundering, illegal mining, and human smuggling. Alongside their involvement in the jaguar trade in the region, organized crime syndicates have diversified their activities into other lucrative businesses. This report demonstrates the interconnectedness of jaguar trafficking with other serious crimes, as transnational organized crime networks become increasingly sophisticated and powerful.

3.2 Sourcing: A Closer Look

The evidence collected on jaguar traffickers in Suriname demonstrates that the criminal networks composed of Surinamese nationals, corrupt officials, and local hunters/poachers are well-organized and easily source jaguar parts without many obstacles. ELI discovered that locals poach wild jaguars in areas closer to the forest and then bring the parts and fangs to Paramaribo. Intelligence confirmed that jaguar parts are sourced mostly from the south

Suriname region, at the border with Brazil, and in the proximity of gold mines. Some of the informants reported that sourcing also occurs in West Suriname.

Jaguars are often hunted by local community members, who know where to find jaguars and how to kill them. It is important to note that these groups, especially the ITPs, are often extremely vulnerable, as many of their livelihoods have been destroyed by environmental degradation, land grabbing, political unrest, and violence within the country. Although many in these communities have a deep history of reverence for animals, some now actively take part in poaching as they are offered a good amount of money by Chinese buyers.

In January 2017, a witness was informed by two tour guides that local hunters had shot six jaguars along the East-West Link⁴⁰ to Paramaribo. Furthermore, eight more jaguars and ten smaller cats were sold to Chinese buyers in the region between Northwest Nickerie and Wageningen. In early April 2017, evidence revealed that two young Maroon men from a village near Afobaka killed a female jaguar, weighing 110 kilos, and posted a selling ad on Facebook with photos. Before any action to stop the selling was initiated a Chinese individual bought the jaguar within 12 hours. ELI's team identified a variety of technologies used to facilitate illegal jaguar trafficking, including the use of social media and messaging platforms (i.e. Facebook, WeChat, and Signal).

Intelligence also revealed that gold miners working at gold extraction sites near the Brazilian border are asked to kill jaguars. ELI discovered that members of the criminal network SA18 visit these mining sites once a year. Members of the criminal network SA1 also hunt jaguars in a location called Apoera, near Guiana's

border, where a collaborator runs a timber factory.

According to ELI's sources, Chinese buyers can reach the hunting place close to a reservoir either by flying a helicopter or through a more extensive trip, which involves reaching the southern part of the reservoir by boat and then driving ATVs to a gold mining site in the mountains.

Jaguar products are becoming more valuable once they reach the buyers in Paramaribo and are worth as much or more than the price of gold when sold in China.

Extracts from undercover video transcripts.

-Chinese buyer: "We, the local Chinese, get the teeth from the black guys here as they will bring the teeth to us to sell. Many locals here come from the mountains to sell to us. But now after the ban² was announced on the news, very few locals have come to us to sell teeth openly. Also, we are afraid to buy from them even if they come here to sell. It's very sensitive now and we don't want to get into trouble and we can't bring them now to China and so why bother?"

3.3 Smuggling Methods: A Closer Look

Intelligence revealed that in 2017, the illicit transport of jaguar products within Suriname was much easier than nowadays, as police did not properly search vehicles for illegal wildlife,

despite the presence of roadblocks within the country. Traffickers used distribution buses and occasionally wood logging trucks, to transport jaguar parts. The parts were transported to certain Chinese-owned supermarkets and shops in Paramaribo where the jaguar meat and other body parts were processed. Research discovered that typically the jaguars were skinned, their bones crushed to make "tiger" balm, male cat testicles were removed, and finally, teeth were carefully extracted. Some shops also make medicines from jaguar bones. ELI's investigative research reveals that many of these smuggling methods and processing of jaguar products continue to be utilized.

In more recent years, smuggling routes within central - and west Suriname have been increasingly utilized for jaguar trafficking (Figure 1):

- Route 1: An unpaved road leading to the Corantijn-river from the airport, passing by the village Apura;
- Route 2: A paved road from Paramaribo Centre to Nikerie Centre
- Route 3: The Afobaka water reserve → 3h boat trip to the south end of reserve → by ATV to the mountains of Brazilian border.

² Authors note: There has not been a formal 'ban'. The sources probably refer to the time that the issue got more attention, since 2018, and the government paid more attention to enforcement of existing laws.

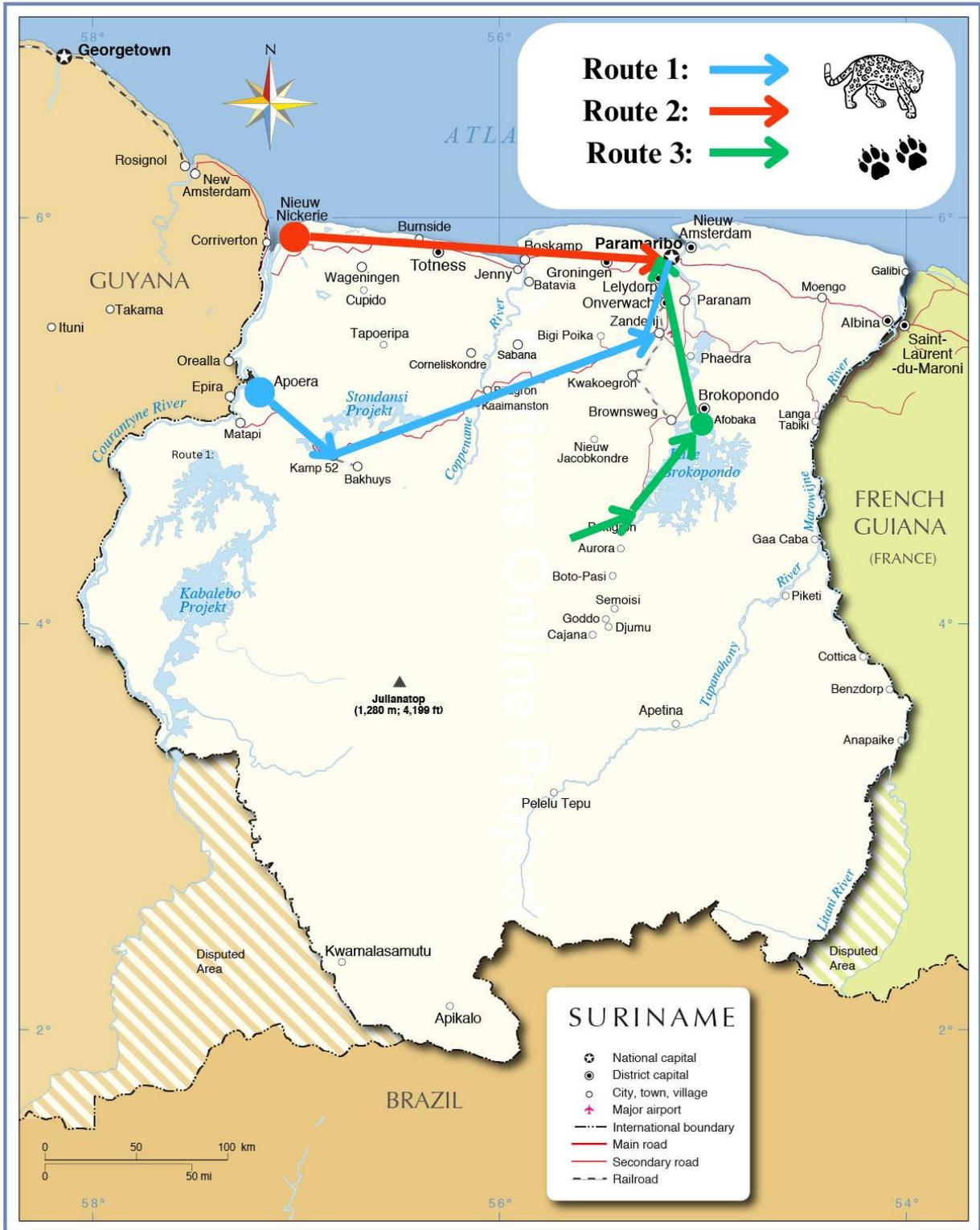


Figure 1: Smuggling routes

Sources among the traffickers revealed the 2 primary ways jaguar products are moved from Suriname to China:

1. Transport of prohibited items by air through the Netherlands.
 - a. Chinese traders bribe officials at the Paramaribo airport to check in luggage containing jaguar parts, huge amounts of USD or Euros, and other illegal items.
 - b. Pieces of luggage are checked in through the Dutch airlines at Paramaribo airport and directed to China through Amsterdam. Informants say that in Amsterdam, 'luggage is rarely scanned or checked with additional X-ray detection at Amsterdam airport. Luggage is simply moved from one flight to another'.⁴¹
 - c. Once in China, customs officers at airports like Xiamen City are also bribed to accept the pieces of luggage without controls. The most used airports in China are Xiamen and Guangzhou.
2. By air through the USA (riskier).
 - a. Traffickers use the same methodology, exploiting routes where pieces of luggage are not checked following the first flight³.
3. By boat to China:

A corrupted Hindustani ex-police inspector originally identified by ELI in 2017 reported that sometimes jaguar parts were hidden inside round tree logs and shipped to China on large container boats managed by Chinese shipping companies.

Transcript from Pol identified by ELI:

Pol: "Now it is very hard to bring jaguar teeth out from the airport. Now, these gold shops here have some trouble in selling the teeth out because of the ban⁴. Actually, Amsterdam airport is not strictly inspecting our luggage when we transfer from there to China. We brought a lot of fish maws, and we had no problem in Amsterdam, but Shanghai and Hangzhou airports check our luggage very carefully. Xiamen and Guangzhou are very easy to get the stuff out."

"Amsterdam airport is not like the USA as all checked luggage for transfer passengers will go from one plane to the next directly in the airport without going through X-ray machines like the USA⁴². So Amsterdam is totally lax as we can hide the illegal stuff like teeth in the checked luggage and they will surely pass as well in Amsterdam on our way to China."

³ Reaction from Schiphol Airport regarding this statement: "All baggage coming from Suriname and transferring through Amsterdam Airport Schiphol is 100% screened for security purposes." Authors' note: The checks are security checks

⁴ Authors' note: There has not been a formal 'ban'. The sources probably refer to the time that the issue got more attention, since 2018, and the government paid more attention to enforcement of existing laws.

3.4 Challenges in Fighting Jaguar Trafficking

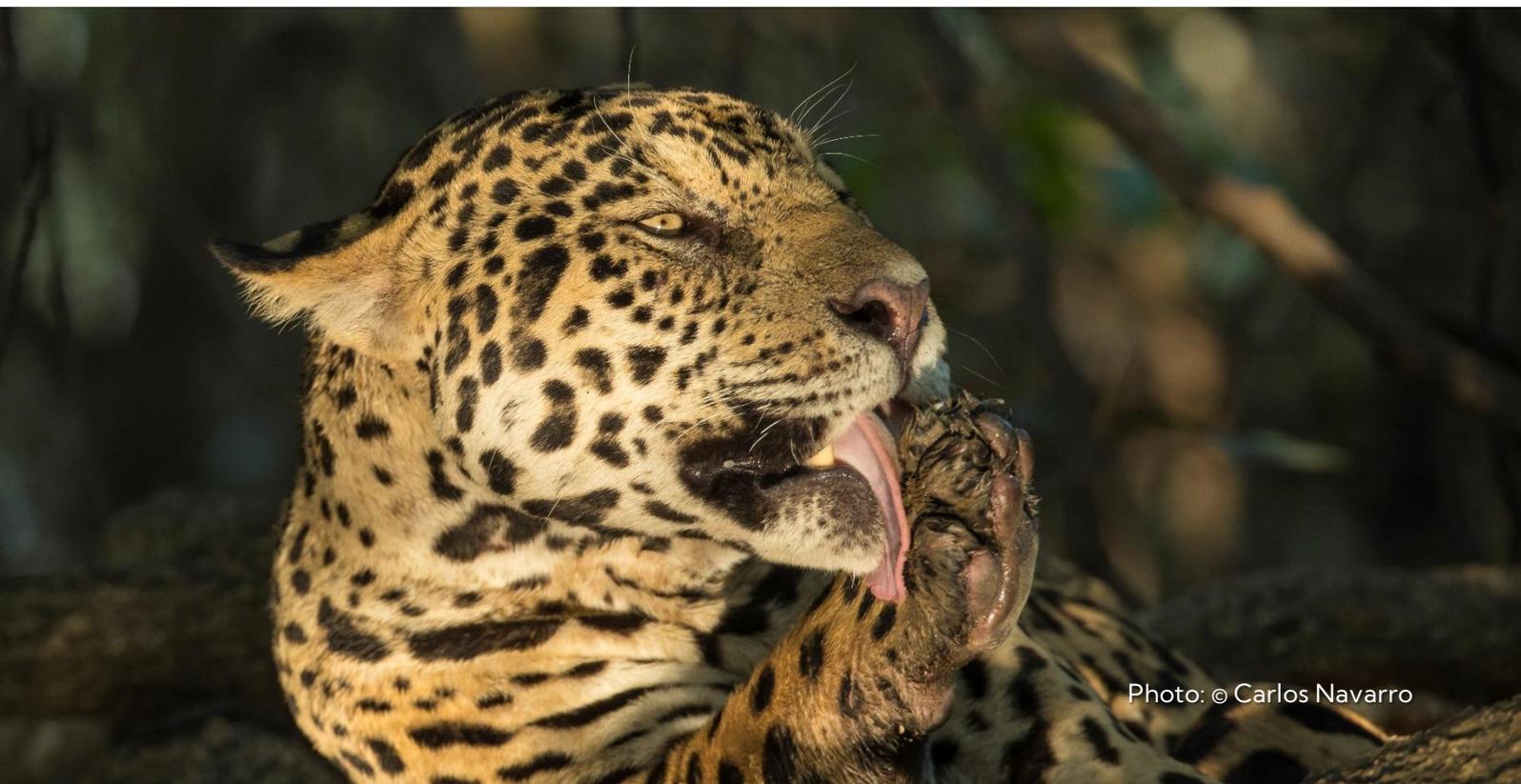
The biggest challenge in the Operation Jaguar program was the lack of priority that governments in Suriname and Latin America place in addressing illegal wildlife crime with the jaguar trade specifically. This results in the allocation of very limited resources for the protection of jaguars and their habits, as well as, significant gaps in the enforcement of laws and regulations.

As we have seen in many other jaguar range states, the success of intervening in the illegal trade and protection of jaguar habitats in Suriname largely occurs through the efforts and tenacious work of dedicated individuals, including researchers, civil society members, law enforcement officials, and remaining park ranger corps. However, as admitted by the Suriname Forest Department, enforcement of the law is limited due to a lack of resources to conduct frequent surveillance, including access to vehicles, fuel, and personnel. As a result, authorities rely on partnerships with local communities, game wardens, the police, eco-tourism operators, and NGOs to obtain information on jaguar poaching or illegal trade. Concerns about the government's enforcement

capacity and the lack of legal awareness were also mentioned in the literature.⁴³

There is a strong, often complex, convergence between the trafficking of jaguars and other serious crimes. This implies that traditional law enforcement approaches focused on isolated illegal businesses are no longer appropriate for understanding and dealing with the increasing complexities of organized crime.

Many prosecutors and judges are also not aware of the trade's dynamic and scale, as they are not sensitized to the basic aspects related to wildlife trafficking and the protection of endangered species. For many judges and prosecutors, the hunting of a jaguar or other wild animal does not constitute a crime, or at the very least is not punishable by imprisonment. Most people who participated in an interview about the illegal trade in jaguars (76% out of 25) knew that poaching jaguars is illegal but were not aware of any enforcement actions or penalties associated with it.⁴⁴



4. CRIMINAL NETWORKS BEHIND JAGUAR TRAFFICKING IN SURINAME

4.1 Sophisticated Criminal Networks

ELI's investigation found that Transnational Organized Crime (TOC) groups are driving the procurement and trafficking of jaguar fangs and parts in Suriname. TOC groups are self-perpetuating associations of individuals who operate by illegal means and unlawful schemes to obtain economic gains, irrespective of geographical areas of operation. The networks identified display various indicators of such organized crime groups as identified in the United Nations Convention on Transnational Organized Crime (UNTOC)⁴⁵. These include:

1. Existence of a structured group of three or more persons acting in concert for the aim of committing one or more serious crimes [...] to obtain a financial benefit". The networks identified are composed of many individuals. The individuals form groups, which appear "structured", as per UNTOC definition: the groups appear well established, non-random and members have roles attributed to them (albeit not "formally defined").
2. These criminals make use of bribery and collaborative links. Some have diverse business activities including legal commodities and business operations (such as restaurants, shops, etc.).
3. Criminal activities (jaguar trafficking) are transnational as they occur in multiple locations, stretching from source sites in Suriname to consumer markets in China, with criminal actors operating in multiple jurisdictions.

Convergence

Furthermore, the involvement of more serious TOC groups in environmental crime is characterized by its overlap with other forms of more serious transnational organized crimes. Convergence has been recognized as a critical feature of TOC groups, which have expanded their criminal activities due to globalization, transnational commerce systems, advancements in technology, and the development of online money transfer systems⁴⁶. TOCs have not only become increasingly interconnected, but they are increasingly diversifying their criminal activities, and reaping benefits by engaging not only in environmental crimes but in other such serious transnational criminal activities such as drug smuggling, human trafficking, firearms trafficking, and money laundering.⁴⁷ It is clear that environmental crime is a cross-cutting transnational criminal activity, rarely occurring in isolation. Yet, there remains a persistent and extensive gap regarding environmental crime and its convergence with other serious crimes.⁴⁸

ELI's Environmental Crime Convergence Paradigm

Drawing on years of fieldwork in Latin America and around the world, which has allowed for the collection of first-hand information, ELI has developed a path-breaking **Environmental Crime Convergence paradigm** to provide empirical evidence regarding the scope and degree to which environmental crimes align with other organized criminal activities. It has defined, instituted, and analyzed a 4 Type Convergence Research Classification based on first-hand empirical data from its field operations and analysis.

1. **Multiple Species Convergence** refers to the trafficking of multiple species at the same time (e. g. rhino

- horn, ivory, pangolin, jaguar, shark fin and other marine products).
2. **Multiple Environmental Crime Convergence** involves the same traffickers or networks engaging in wildlife crime, plus the trafficking of other natural resources, such as illegal logging, illegal fishing, and illegal mining.
 3. **Serious Crime Convergence** refers to the same traffickers or networks engaging in other serious crimes, such as money laundering, human smuggling, and drug trafficking.
 4. **Transnational Networks Convergence** describes the overlap of transnational organized criminal networks and their activities. Network convergence is multileveled, as these criminal networks have intentionally created a variety of regional, interregional, and transnational points of connection to strengthen their criminal activities.

The findings regarding ELI's work in Suriname are presented and analyzed through this framework, as all top transnational environmental criminal networks in the region engage in jaguar trafficking and converging criminal activities.

4.2 A Case Study of Transnational Environmental Crime Networks: SA1 and SA18

In the following section, we provide a case study of two of the most powerful wildlife trafficking networks identified in Suriname, titled **SA1 and SA18**. The case study includes detailed evidence and first-hand information regarding jaguar trafficking and Environmental Crime Convergence within and between these networks.

4.2.1 Introduction to the Networks

SA1 and SA18 are two of the most robust and resourceful wildlife trafficking networks in South America.

Network SA1 is a multi-commodity criminal network composed of Chinese individuals operating from multiple countries in South America. ELI has been collecting intelligence on the group for over 3 years and discovered that this network is involved in wildlife crimes (the procurement and selling of jaguar fangs as well as, the trafficking of shark fins and other marine products), other environmental crimes such as illegal mining, and serious crimes like money laundering and human smuggling. The network also has connections with Brazilian mafia groups and Colombian and Brazilian cartels.

Investigations revealed that Pol Sa10 is the leader of SA1. He is originally from China, where he was part of the Chinese mafia. Pol Sa10 personally leads smuggling operations and money laundering. He is very willing to take risks to accomplish the network's goals. As part of the ring's operations cover, Sa10 owns a legitimate and officially registered business in Suriname.

Network SA18 is a Fujian criminal network based in Suriname involved in wildlife trafficking (jaguar) and money laundering. Interestingly, all the SA18 members have US visas, and they have members operating from within the U.S. or those that frequently travel back and forth. Network SA18 launders money through USD, and Euros from Suriname, the US, and China. The ring can launder around half a million USD per day.

During its most recent round of fieldwork in 2022, investigators identified and researched Pol Sa74, one of the most influential members of SA18 in Suriname. Pol Sa74 is a member of the Fujian and the Fuqing mafia, who

actively engaged in money laundering and human smuggling. He owns a Suriname passport with a fake name and has carefully created a fake identity to engage in illicit activities.

4.2.2 Environmental Crime Convergence in SA1 and SA18

TYPE 1 – SPECIES CONVERGENCE

Both SA1 and SA18 have engaged in the trafficking of jaguar parts (mostly fangs and bones) in convergence with shark fins and illegal marine products.

SA1 – SA1 has been sourcing, processing, and selling jaguar parts for years, while also engaging heavily in the procurement and smuggling of tons of shark fins and illegal seafood. Members of SA1 personally hunt jaguars and process the carcasses to eat the meat. They later use the bones to make jaguar bone wine, which they produce in collaboration with a famous Chinese jaguar bone wine brewer in the region.

SA1 also traffics shark fins by collaborating with a network partner based in Brazil (**SA2**). SA1 can provide 1-

2 tons of shark fins per month, equaling 12–24 tons/per year. According to an informant close to the network, the sharks are caught by big Chinese state-owned companies in Venezuela that can procure 30 to 50 tons of shark fins per month using their Chinese-operated boats, which fly Venezuelan flags. In 2021, these companies had more than 80 tons of shark fins stocked in Venezuela. The networks sell these wildlife products in the South American region and then to China. This network also controls an illegal supply chain to Europe, although specific countries have yet to be identified.



ELI has uncovered these patterns of smuggling routes:

- Venezuela → Suriname → Cambodia → China
- Caribbean countries → Venezuela → Cambodia → China
- Venezuela → Cambodia → China



SA18 – SA18 also trades jaguar parts as well as sea turtles and other illegal marine products, including seahorses. Through ELI's investigations of SA18, the team also identified a couple of traders who have ample availability of jaguar fangs and shark fins. They own a shop in the capital of Suriname and one of the traders works in the customs clearance department to ensure that the containers of illegal wildlife products coming from China are not flagged.

TYPE 2 – MULTIPLE ENVIRONMENTAL CRIME CONVERGENCE

There is verified knowledge that SA1 is involved in illegal logging and illegal gold mining with the Chinese mafia, the Venezuela mafia in southern Venezuela, and Brazilian groups engaging in illegal logging and mining in the forests near the Brazilian border. One of ELI's sources identified in 2018, a Chinese butcher at a supermarket, revealed that many Chinese in Suriname work(ed) at an American company-operated gold mining site about a 3 hours drive from Paramaribo. According to this source, it is not necessary to hold a license or a permit to start digging operations. Interested individuals could rent a portion of the mine from the company and then pay back an equivalent 10% of the gold's monetary value.

TYPE 3 – SERIOUS CRIME CONVERGENCE

The wildlife crimes committed by SA1 and SA18 also occur alongside a variety of other illicit activities, including money laundering, drug smuggling, human smuggling, and corruption. Our team has gathered extensive evidence and details regarding SA1 and SA18's involvement in a variety of serious crimes.

Convergence with Corruption

Informants within the Chinese trader community confirmed the high level of

corruption in Suriname. SA1 and SA18 can bribe customs officials to have the jaguar and other products shipped out of the country without issues.

Moreover, through bribery and agreements with corrupt officials, traffickers can also secure export and hunting permits. The same mechanism is often used to get paperwork for other illegal purposes, such as human smuggling. Corruption also enables the movement of huge amounts of cash between Suriname and Europe, allowing the network to successfully engage in money laundering.

Convergence with Human Smuggling

Many individuals in China pay thousands of dollars to these criminal networks to be smuggled into Suriname. The first half of the payment is due before they depart from China, then the rest of the debt is paid off by working for the Chinese mafia in Suriname. If the mafia is not satisfied with the individuals' performances as workers, the trafficked and their families back in China are threatened and harassed⁴⁹. Moreover, the immigrants are often smuggled without their passports or IDs.

Informants confirmed in 2021 that the SA1 network hires Chinese workers (from China and South America) to be smuggled into the U.S. In 2022, ELI received additional information from SA18 that when the Chinese immigrants arrive in Suriname, they are then directed to other Caribbean countries such as Grenada, and eventually reach Mexico and the US. SA18 provides the immigrants with Malaysian passports, to which they then apply new photos of the immigrants. Informants have revealed that the network provides Malaysian passports because they have found it easier to receive permits and visas in comparison to Chinese passports. From Mexico, the network

smuggles the immigrants to the US without passports. They do this so that the immigrants will be further indebted and dependent on the network, often forcing the immigrants to work for them or to pay them more money upon their arrival to the US. A careful organization within both SA1 and SA18 guarantees protection and resolves any possible issues at U.S. borders, guaranteeing free air tickets to New York or other main American cities.

Convergence with Money Laundering

Both the criminal groups SA1 and SA18 can launder about half a million USD per day. Pol Sa74 has been laundering money through USD and Euro from Suriname, the U.S., and China.

Convergence with Drug Trafficking

From ELI's findings, Suriname is one of the most important transit points for cocaine smuggling to Europe and Brazil.

Like jaguar parts, the networks smuggle cocaine to China via containers of hardwood. The illegal contraband is hidden inside the logs. The resistant core of the tree allows for cocaine and other substances to be hidden inside without being recognized by the scanner controls before shipment.

TYPE 4 – NETWORKS CONVERGENCE

SA1 works with another network at the regional level and is closely affiliated with mafia groups and drug cartels in Colombia and Brazil. SA1's Brazilian partner is a mafia boss and together they engage in weapons trafficking, drug smuggling, and money laundering. ELI's investigations also revealed that the network SA18 and the American branch of the Chinese mafia based in New York are connected and conduct money laundering business together.



Photo: Britta Jaschinski, jaguar teeth

5. RECOMMENDATIONS

It is recommended that the **government of Suriname:**

- > Enhance the detection and interdiction of poaching and trafficking of jaguars and other wildlife by allocating sufficient financial and human resources to relevant law enforcement agencies, ensuring they receive adequate training and providing the necessary tools and infrastructure for them to share information and collaborate on wildlife crime. This can include using alternative instruments such as artificial intelligence tools like Project SEEKER⁵⁰ or scent dogs.

- > Take into account that there is a strong and complex convergence between the trafficking of jaguars and other serious crimes. This implies that traditional law enforcement approaches focused on isolated illegal businesses are no longer appropriate for understanding and dealing with the increasing complexities of organized crime.
- > Enhance the prosecution and sentencing of jaguar- and other wildlife crimes by allocating sufficient resources to prosecutors' offices and courts to sensitize prosecutors and judges. A good first step has been the recent establishment of specialized environmental crime branches in the prosecutors' offices and courts in Paramaribo.
- > Promote information sharing and collaboration with neighboring countries to improve coordination between governments and international bodies working on combating other illegal networks active in illegal mining, narcotics, human trafficking, document forgery and money laundering among others.
- > Support the conservation of jaguars and other threatened wildlife species in Suriname by protecting key habitats from the encroachment of mining and infrastructure projects that impact the integrity of and connectivity between nature conservation areas.
- > Work with other stakeholders on the implementation of the [National Jaguar Conservation Action Plan \(see text box page\)](#). Similar to other range states, the development of the Jaguar National Action Plans has been an important process to build consensus among the different stakeholders in Suriname on the priorities and actions needed to protect the jaguar. This ensures that the trafficking of these species is an integral part of national



Photo: detection dog in Suriname

conservation plans and is not just the task of the police and the judiciary.

It is recommended that **international organizations, including INTERPOL, UNODC and World Customs Organization (WCO):**

- > Provide technical support to the government of Suriname through the training of law enforcement agencies and sensitization of prosecution and judiciary service. They must consider the rise of environmental crime, its convergence with other crimes, and the illicit network development cycle that starts with opportunistic alliances and continues through convergence and domination of the trade, as described by criminological science.
- > Support and facilitate regional cooperation and information analysis to combat cross-border crime.

It is recommended that **civil society organizations in and outside Suriname:**

- > Provide technical support to the government of Suriname to enhance Suriname's criminal justice response to poaching and trafficking of jaguars and other wildlife. Providing training, as well as pertinent information about wildlife crimes in Suriname obtained through research and investigations, can help accomplish this.
- > Invest in further research to understand the scale, trade dynamics, and crime convergence with other serious crimes to focus on dismantling networks more effectively, instead of targeting only those lower down in the hierarchy.
- > Help to reduce human-wildlife conflicts and increase tolerance for, and co-existence with, wild jaguars by engaging with local communities, raising awareness, improving livelihoods, and fostering communities' interest in protecting jaguars and other wildlife. Ecotourism projects are a current example.

- > Conduct awareness-raising campaigns for relevant target audiences, including the general public, rural communities, hunters, and Chinese communities in Suriname.
- > Support and/or conduct further research into the dynamics of poaching and trafficking of jaguars and other wildlife (including identifying drivers, hotspots and impacts) and the role of human-wildlife conflicts in the illegal trade to implement targeted responses to these crimes.
- > Engage Chinese stakeholders, like the embassy, corporations, and Chinese migrant communities. Lack of understanding of these stakeholders is a huge challenge for NGOs wanting to influence them so it is very important to start talking with them instead of about them.

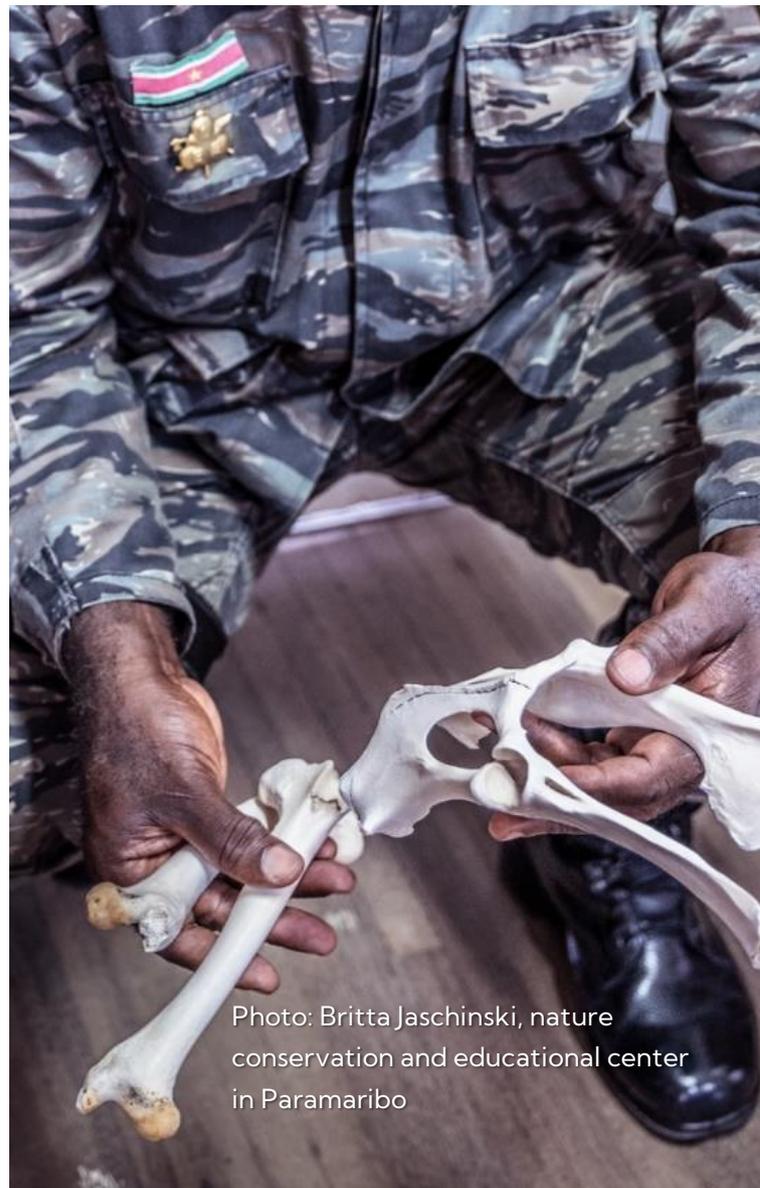


Photo: Britta Jaschinski, nature conservation and educational center in Paramaribo

ABOUT



About Earth League International (ELI)

Earth League International (ELI) is a pioneer and a global leader in the use and direct application of professional intelligence, investigation, and analysis applied to environmental/wildlife crime, conservation, and converging criminal activities. ELI's strategically assembled team offers a diversity of professional experiences and technical skill sets related to conservation, investigations, geospatial intelligence, technology, and cyber-security. ELI is comprised of advanced analysts and highly skilled, retired Intel professionals from various law enforcement and intelligence agencies (including the FBI) who have a long history of project execution in Central America, South America, Latin America, Africa, Southeast Asia, and Mainland China. ELI's team also includes conservationists and professionals with decades of experience in conservation and wildlife protection projects around the world. Since 2013, ELI has collected and analyzed information on illegal supply chains, including the modus operandi of businesses and criminal networks that are perpetrating and profiting from environmental crime. ELI produces and shares analytic reports, public reports, and Confidential Intelligence Briefs (CIBs) with carefully selected agencies and organizations that are in a position to either prevent environmental crime or to disrupt transnational criminal networks. ELI also manages the world's first wildlife crime whistleblowing initiative, WildLeaks. ELI currently operates in Africa, Asia, Latin America, North America, and Europe.



About IUCN NL

IUCN NL is the Dutch national committee of the International Union for Conservation of Nature (IUCN), the world's largest and most diverse environmental network. IUCN harnesses the experience, resources, and reach of its 1,300 member organizations, uniquely composed of governments, civil society organizations and business, and the input of some 15,000 scientists and experts from all over the world.

Within the international IUCN umbrella organization, IUCN NL helps the world find pragmatic solutions to our most pressing environment and development challenges such as biodiversity loss, climate change and poverty. Nature is fundamental to addressing these problems. Natural capital is the foundation of our economy and our well-being. It provides us with food, clean water, fresh air, energy, medicine and a roof over our head. That is why the protection of biodiversity and ecosystems is at the heart of IUCN's mission.

IUCN currently has 38 Netherlands-based member organizations. In striving towards a sustainable future we work closely with these members and our network of companies, governments, southern NGOs and scientists, sharing knowledge and expertise, executing concrete projects and influencing the political agenda.

ENDNOTES

- ¹ <https://www.nationalgeographic.com/animals/article/wildlife-watch-news-jaguar-poaching-trafficking-suriname>
- ² Tier-1 distinguishes a criminal in terms of importance in the illegal supply chain. In the case of the jaguar, a Tier-1 wildlife trafficker is "the boss" and in control of the illegal supply chain. For example, he may place the order for 20 jaguars, and lower-level middle-men and poachers fulfill this request.
- ³ [Jaguars in Suriname Poached for Traditional Chinese Medicine](#)
- ⁴ Verheij, P. (2019). An assessment of wildlife poaching and trafficking in Bolivia and Suriname. IUCN NL, Amsterdam. [https://www.iucn.nl/app/uploads/2021/03/an assessment of wildlife poaching and trafficking in bolivia and suriname.pdf](https://www.iucn.nl/app/uploads/2021/03/an_assessment_of_wildlife_poaching_and_trafficking_in_bolivia_and_suriname.pdf)
- ⁵ [Suriname Population 2023 \(Live\)](#)
- ⁶ [THE REPUBLIC OF SURINAME](#)
- ⁷ [Suriname Overview: Development news, research, data | World Bank](#)
- ⁸ US Department of State. 2022 Investment Climate Statements: Suriname. [2022 Investment Climate Statements: Suriname](#)
- ⁹ [2021 Investment Climate Statements: Suriname](#)
- ¹⁰ [Suriname: Despite postponed oil production, the government continues on its chosen path - BNamericas](#)
- ¹¹ Verheij, P. (2019). An assessment of wildlife poaching and trafficking in Bolivia and Suriname. IUCN NL, Amsterdam. [https://www.iucn.nl/app/uploads/2021/03/an assessment of wildlife poaching and trafficking in bolivia and suriname.pdf](https://www.iucn.nl/app/uploads/2021/03/an_assessment_of_wildlife_poaching_and_trafficking_in_bolivia_and_suriname.pdf)
- ¹² [2021 Investment Climate Statements: Suriname](#)
- ¹³ [Suriname | InfoAmazonia](#)
- ¹⁴ Verheij, P. (2019). An assessment of wildlife poaching and trafficking in Bolivia and Suriname. IUCN NL, Amsterdam.
- ¹⁵ [Suriname | InfoAmazonia](#)
- ¹⁶ [REDD+ Suriname](#)
- ¹⁷ [Forestry Issues in the Guiana Shield Region: A perspective on Guyana and Suriname](#)
- ¹⁸ Verheij, P. (2019). An assessment of wildlife poaching and trafficking in Bolivia and Suriname. IUCN NL, Amsterdam. [https://www.iucn.nl/app/uploads/2021/03/an assessment of wildlife poaching and trafficking in bolivia and suriname.pdf](https://www.iucn.nl/app/uploads/2021/03/an_assessment_of_wildlife_poaching_and_trafficking_in_bolivia_and_suriname.pdf)
- ¹⁹ Wet van 3 april 1954 houdende voorzieningen tot bescherming van de fauna en tot regeling van de jacht in Suriname (Jachtwet 1954). [Jachtwet 1954 - De Nationale Assemblée](#)
- ²⁰ Staatsbesluit van 27 december 2002, houdende regels ter uitvoering van de artikelen 1, 6, 8, 10, 11, 13, 23 en 23a van de Jachtwet 1954 (Jachtbesluit 2002). See: <https://faolex.fao.org/docs/pdf/sur202427.pdf>
- ²¹ <https://tomahawk.sr/wp-content/uploads/2022/04/jachtkalender.pdf>
- ²² [2020 STAATSBLAD VAN DE REPUBLIEK SURINAME No. 97 WET van 07 mei 2020, houdende regels voor duurzaam milieumanagement](#)
- ²³ [CITES Study on the illegal trade in jaguars \(Panthera onca\)](#)
- ²⁴ See: [\(UPDATED NOVEMBER 2022\) Parties in bold have been added since CoP19 Albania Angola Argentina Australia Austria Bahamas Barbados](#)
- ²⁵ [106 - Continental conservation priority for the jaguar \(Panthera onca\)](#)
- ²⁶ Sinovas, P., Price, B., King, E., Hinsley, A., & Pavitt, A. (2017). Wildlife trade in the Amazon countries: an analysis of trade in CITES listed species. Cambridge (UK): United Nations Environment Programme World Conservation Monitoring Centre. <https://doi.org/10.34892/7EKA-H960>
- ²⁷ Ibid
- ²⁸ Verheij, P. (2019). An assessment of wildlife poaching and trafficking in Bolivia and Suriname. IUCN NL, Amsterdam. [https://www.iucn.nl/app/uploads/2021/03/an assessment of wildlife poaching and trafficking in bolivia and suriname.pdf](https://www.iucn.nl/app/uploads/2021/03/an_assessment_of_wildlife_poaching_and_trafficking_in_bolivia_and_suriname.pdf)

²⁹ *ibid*

³⁰ de la Torre, J. A., González-Maya, J. F., Zarza, H., Ceballos, G., & Medellín, R. A. (2017). The jaguar's spots are darker than they appear: Assessing the global conservation status of the jaguar *Panthera onca*. *Oryx*, 52(2), 300–315. [The jaguar's spots are darker than they appear: assessing the global conservation status of the jaguar Panthera onca | Oryx | Cambridge Core](#)

³¹ Kretser, H. E., Nuñez-Salas, M., Polisar, J., & Maffei, L. (2022). A range-wide analysis of legal instruments applicable to jaguar conservation. *Journal of International Wildlife Law & Policy*, 25(1), 1-61. <https://library.wcs.org/fr-fr/doi/ct/>

³² de la Torre, J. A., González-Maya, J. F., Zarza, H., Ceballos, G., & Medellín, R. A. (2017). The jaguar's spots are darker than they appear: Assessing the global conservation status of the jaguar *Panthera onca*. *Oryx*, 52(2), 300–315. [The jaguar's spots are darker than they appear: assessing the global conservation status of the jaguar Panthera onca | Oryx | Cambridge Core](#)

³³ Jedrzejewski, W., Robinson, H. S., Abarca, M., Zeller, K. A., Velasquez, G., Paemelaere, E. A. D., et al. (2018). Estimating large carnivore populations at global scale based on spatial predictions of density and distribution—Application to the jaguar (*Panthera onca*). *PLoS ONE*, 13(3), e0194719. [Estimating large carnivore populations at global scale based on spatial predictions of density and distribution – Application to the jaguar \(Panthera onca\) | PLOS ONE](#).

³⁴ [CITES Study on the illegal trade in jaguars \(Panthera onca\)](#)

³⁵ Marchini, S., Cummings, A., Arisi, B., Argudin-Violante, C., Süsskind, F., Shepard, G., . . . Arias, M. (2022). Multidisciplinary team highlights the importance of Indigenous and local communities for jaguar conservation. *Oryx*, 56(2), 173-174.

[Multidisciplinary team highlights the importance of Indigenous and local communities for jaguar conservation - UCL Discovery](#)
³⁶ <https://www.nationalgeographic.com/animals/article/wildlife-watch-news-jaguar-poaching-trafficking-suriname>

³⁷ *ibid*.

³⁸ [The production of jaguar paste in Suriname: a product-based crime script | Crime Science](#)

³⁹ Reaction from Schiphol Airport regarding this statement: “All baggage coming from Suriname and transferring through Amsterdam Airport Schiphol is 100% screened for security purposes.”

⁴⁰ Road in Suriname between Albina in the eastern part of the country to Nieuw Nickerie in the western part, via the capital city of Paramaribo.

⁴¹ Reaction from Schiphol Airport regarding this statement: “All baggage coming from Suriname and transferring through Amsterdam Airport Schiphol is 100% screened for security purposes.”

⁴² Reaction from Schiphol Airport regarding this statement: “All baggage coming from Suriname and transferring through Amsterdam Airport Schiphol is 100% screened for security purposes.”

⁴³ [CITES Study on the illegal trade in jaguars \(Panthera onca\)](#)

⁴⁴ *ibid*

⁴⁵ [United Nations Convention against Transnational Organized Crime](#)

⁴⁶ INTERPOL-UN Environment (2016). Strategic Report: Environment, Peace and Security – A Convergence of Threats. Available at www.interpol.int and www.unep.org

⁴⁷ Van Uhm, D. P., & Nijman, R. C. C. (2022). The convergence of environmental crime with other serious crimes: Subtypes within the environmental crime continuum. *European Journal of Criminology*, 19(4), 542–561. [The convergence of environmental crime with other serious crimes: Subtypes within the environmental crime continuum - Daan P. van Uhm, Rick C.C. Nijman, 2022](#)

⁴⁸ *ibid*.

⁴⁹ Human smuggling is closely connected with human trafficking. Evidence indicates that many of the Chinese immigrants are forced by the Chinese mafia to work in illegal construction sites and brothels.

⁵⁰ [Project SEEKER: Using artificial intelligence for good - Microsoft Industry Blogs](#)