

Jaguar trafficking dynamics in Latin America: Analysis Report



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Executive summary

Illegal wildlife trade (IWT) is a growing threat for wildlife and human communities around the world. Although most efforts to understand and address IWT have centered in Africa and Asia, where charismatic megafauna such as elephants, rhinos, and tigers have been declining due to illegal trade, the recent re-emergence of an international market for jaguar (*Panthera onca*) body parts, with ties to Asian demand, has attracted attention towards IWT in Latin America. Since the first seizures of jaguar body parts destined to China were made in 2014 in Bolivia, a series of investments, investigations, projects and international meetings have taken place throughout the region with the goal of addressing jaguar trade and IWT more generally. As authorities and the conservation community in the region prepare to implement actions to confront the threat of jaguar trade, this report aims to provide a summary of jaguar trade dynamics, as indicated by the evidence that is currently available on the topic, and to provide key recommendations to improve the effectiveness of those actions.

The report summarizes the findings from a systematic evidence mapping exercise, covering 559 academic and grey literature articles on topics related to jaguar conservation. Many of the resulting 48 eligible articles, which contained specific evidence on jaguar trade, focused on Mexico and Brazil, showing important geographical gaps in the evidence on jaguar trade. The selected articles helped to identify the main typologies and drivers of the actors involved in jaguar trade. Unlike many other kinds of IWT, where there are highly heterogeneous and specialized actor roles across the trade chain, the jaguar trade chain appeared to be rather simple, with the same actors, namely, rural hunters, farmers and ranchers, being the most prevalent players in the supply, trade and demand of jaguar body parts. There were a few exceptions, with the tourism sector, Chinese citizens, and drug-traffickers also taking part in the trade and consumption of jaguar products. Desired jaguar body parts, predominantly jaguar skins, skulls and teeth, were obtained in forested areas near or inside protected areas and then transported to large urban centers or tourism areas, where they reach end-consumers who requested them in advance (in-person or through social media), found them in display in jewelry shops or crafts markets, or who were approached directly by traders.

The supply of jaguar body parts did not originate in economic motives only but was mainly a result of chance encounters with jaguars or human-jaguar conflict events. The desire to show social status and masculinity, as well as the fear of jaguars, were other motivations for killing jaguars and keeping or trading their body parts. Only a few articles mentioned international trade of jaguar body parts (mainly to Asia), with the items being smuggled through local mailing companies and commercial airlines. The uses of jaguar body parts were varied, including personal or home decoration, medicine and cultural rituals, among others. Meanwhile, the broad-scale drivers of jaguar trade, as identified by the literature, included human-wildlife conflict, wild meat hunting, Asian demand, drug trafficking, migration, and tourism.

Based on this baseline information, the report includes a series of recommendations for authorities and the conservation community to address jaguar trade and IWT more generally. Recommendations center around: 1) collecting further information about the actors, markets and

dynamics behind jaguar trade; 2) shifting the costs and benefits of engaging in IWT at multiple levels of the trade chain, and 3) increasing the preparedness of the conservation community to address jaguar trade. Through these recommendations, the report aims to support and guide upcoming actions to conserve jaguars and tackle IWT, in line with the Jaguar 2030 Roadmap¹ and the Lima Declaration on IWT².

Introduction

Illegal wildlife trade (IWT), also known as wildlife trafficking, is a growing threat for wildlife and human communities around the world. IWT affects hundreds of animal and plant species - including elephants, jaguars, and orchids - accelerating their risk of extinction. IWT benefits from corruption and weak governance structures along the trade chain, undermining the rule of law and the general security of communities living alongside wildlife and wild places. Moreover, IWT often takes place in the context of other serious organized crimes, making it an important issue for national security (Douglas and Alie, 2014). Despite increased investments to tackle IWT, this highly profitable illicit activity continues to spread into new regions and to affect new taxa (Esmail et al., 2018).

Latin America and the Caribbean is one of the most biodiverse regions in the world. Unsurprisingly, its wide range of unique organisms have long been targeted by illegal and unsustainable commercial trade domestically and internationally, facilitated by the region's high levels of corruption, poverty and organized crime. Despite this, IWT in Latin America has received less attention and funding than other regions, and thus, its scale, drivers and market



Credit: Musuk Nolte

dynamics remain largely unknown. However, the recent re-emergence of a market for the jaguar (*Panthera onca*), the region's most emblematic wild cat and keystone species, has attracted the attention of the conservation community. In particular, the links between jaguar trade and Chinese-demand, as suggested by seizure data and recent observations from several countries (Lemieux and Bruschi, 2019; Nunez and Aliaga-Rossel, 2017; Reuter et al., 2018; Verheij, 2019;

¹ The Jaguar 2030 Roadmap resulted from a commitment to save the jaguar among international conservation organizations and 14 jaguar range states during the Conference of Parties (COP) 14 of the Convention on Biological Diversity. https://www.panthera.org/cms/sites/default/files/Panthera_Jaguar2030Roadmap_ENG.pdf

² The Lima Declaration on IWT, which was adopted on October 2019 by 20 countries following the First High-Level Conference on Illegal Wildlife Trade in the Americas, recognized IWT in the region as a serious crime and declared the jaguar as an emblematic species in the fight against IWT. <http://iwtlima2019.pe/noticias/paises-de-las-americanas-se-adhieren-la-declaracion-de-lima-para-luchar-contra-el-comercio-0>

WCS., 2019), have spurred a growing concern for the gravity of IWT in the region, reminiscent of the alarming Asian-driven IWT rates that have decimated African and Asian megafauna.

In this context, this report aims to provide an overview of the jaguar trade in Latin America, based on current evidence, in order to inform intervention strategies and targeted enforcement actions by governments and the conservation community. The report summarizes the key actors and motivations in the jaguar trade chain, from supply to demand, as well as some of the methods that are used to obtain and trade jaguar body parts. The report then offers practical recommendations for actions that authorities or other members of the conservation community could implement at multiple levels to prevent the jaguar trade from escalating.

Methods

The report is based on a systematic map of the state of the evidence on jaguar trade, focusing on the different levels of the jaguar trade chain (supply, trade, demand). Systematic mapping is an evidence synthesis method aimed at collating, describing and cataloging information about a topic of interest (James et al., 2016). We constructed a Population and Exposure logic grid (Collaboration for Environmental Evidence, 2018) to identify key words pertaining to our population or species of interest (jaguars) and relevant exposures (acts of killing and trading jaguar body parts). We conducted our searches in the Web of Knowledge, Open Grey and Google Scholar in order to capture both peer-reviewed and grey literature. For Google Scholar, the first 100 search results were considered. We also reviewed the WCS library for additional internal publications about jaguars and jaguar trade. Searches were made in English, Spanish and Portuguese, spanning a period of 19 years, from 2000 to 2019.

Search results were screened in three different stages (title, abstract, and full body) following a set of inclusion criteria. More specifically, articles needed to explicitly mention jaguars and refer to the human-dimensions of jaguar conservation, or mention the use of social science data collection methods, such as interviews or questionnaires. Upon a full text screening of articles that met the initial criteria, we included those which explicitly mentioned that jaguar body parts were kept and/or traded following a killing event. The contents of those articles were fully analyzed and placed on a database organized according to the levels of the jaguar trade chain (supply, trade, demand), including actors, drivers, and uses of jaguar body parts. We excluded all texts that offered strictly ecological or biological information about jaguars, human-jaguar conflict studies that focused strictly on livestock rearing practices or environmental factors associated with attack risks, studies involving other species, and non-related studies.

Results

A total of 559 academic articles were screened from the Web of Knowledge, excluding duplicates. Of these, 116 (21%) were reviewed in full text, and 34 (6%) were selected as eligible because

they explicitly mentioned jaguar trading events. An additional 14 grey literature articles were included, for a total of 48 articles. The most common data collection methods used by those studies included interviews with farmers and ranchers, hunters, and experts. Other methods used were narrations of personal experiences, participant observation, and secondary literature reviews. The majority of articles (51%) were about events that occurred in Brazil and Mexico, followed by Surinam and Belize. Other countries in the region received less attention, showing geographical biases in jaguar trade reporting and research.

Actor typologies:

The structure of illegal wildlife trade chains, which is determined in part by who and how many participants are involved in this activity, is a critical consideration for the effectiveness and sustainability of enforcement actions and other policies to address IWT. For instance, the way in which IWT networks are organized, in a hierarchical structure or else dispersed, can influence the design of law-enforcement strategies. While IWT networks are diverse, three basic types of actors can be identified: (a) suppliers, (b) traders (also called 'intermediaries'), and, (c) consumers (Felbab Brown, 2017). Of the 48 articles reviewed, 46% describe supplier typologies, 35% identified consumers, while only 19% of articles mentioned traders. This may point to a critical gap of information in jaguar trade dynamics, since traders are often a crucial part of the chain, as they facilitate access across international borders (Phelps et al., 2016). However, the lack of descriptions about intermediary actors may also indicate their overall absence from the trade chain, suggesting direct transactions among suppliers and consumers.

When examining the articles, we found the following actor typologies:

- **Suppliers:** Most articles mentioned hunters (either rural wild meat hunters or, professional and/or hired hunters) as suppliers. The next most mentioned type of supplier were indigenous communities and rural people of mixed ethnicity. This aligns with Felbab Brown (2017) who highlighted the involvement of local communities in poaching, given that communities engage in this activity for their subsistence and/or because they are unable to resist the pressure from global poaching networks. The next category of suppliers included ranchers, farmers, and fishers, which in some cases overlap with the previous categories. Suppliers of Chinese descent were mentioned once.
- **Traders:** Indigenous communities and rural people of mixed ethnicity were the most common category of jaguar traders. This group was followed by Asians (including Chinese and other countries) and hunters in general. Other types of traders that were mentioned less frequently were drug traffickers, people from the tourism sector (tourism guides and resorts), Italian citizens, specialized traders, and people living in urban areas.
- **Consumers:** The most frequent type of consumers were ranchers, farmers, and fishers, followed by hunters and indigenous/local people. Other types of consumers mentioned were animal breeders, opportunistic hunters, trophy hunters, and people living in urban

areas. Tourists were another important consumer group, considering that many of the jaguar body parts' seizures took place in popular tourism destinations and that tourism has been recognized as a driver of jaguar trade (Arias and Milner-Gulland, 2019; Reuter et al., 2018). In addition, articles identified Latin America, Europe, and Asia as the main market destinations. It is important to note that although China's consumers dominate the global wildlife market, demand for wildlife is increasing in other Asian regions, such as Southeast and East Asia (Felbab Brown, 2017).

As shown in figure 1, there is substantial overlap among actors involved in the supply, trade and, demand for jaguar body parts. In particular, ranchers, farmers, and fishers, indigenous people and hunters, who are all rural villagers living in close proximity to jaguar habitat, act as suppliers, traders and consumers of jaguar body parts. The same appears to be the case with members of the Chinese diaspora, who appear to be involved in all the levels of the trade chain.



Figure 1 Jaguar trade actors

Location of supply, trade, and demand:

Most articles suggested that the jaguar trade chain is predominantly domestic, with both supply and demand processes occurring within the boundaries of Latin American countries. As mentioned previously, in many cases, hunters, farmers, and communities living in rural areas near jaguar habitat and protected areas were both the source and the demand for jaguar body parts. Arias and Milner-Gulland (2019) described this group as jaguar body parts' 'keepers', who "because of their livelihood activities and geographic location in rural and forested areas, are likely to come into contact with jaguars, and may choose to retain the jaguar's body parts for their own

use, generally as decoration, trophies, or food”. Keepers become suppliers when they choose to trade the jaguar body parts, personally transporting them to larger urban centers and/or tourism areas, often using private vehicles or public transportation, or through the help of intermediaries (Arias and Milner-Gulland, 2019). As they move from rural areas to urban centers, jaguar body parts increase their value (Kelly, 2018; Arias et al, 2019). Twenty-three percent of our articles (mainly grey literature) mentioned international trade from Latin American countries, mainly Bolivia, Suriname, Brazil, Colombia and, Peru, to demand countries like China, North America or Europe. While some of these reports were based on seizure information, most were based on the personal experience of, or anecdotal accounts heard by the authors.

Methods to kill and trade:

Only 9% of the reports mentioned the methods that are used to kill jaguars. Out of those, the most common strategy used by hunters was to opportunistically or intentionally shoot jaguars while hunting for wild meat, oftentimes with the help of hunting dogs that are able to detect the scent of a jaguar (and other wildlife), chasing it until it becomes an easier target (usually upon climbing a tree). Another important killing method was to shoot or ‘harpoon’ jaguars while they are swimming across waterways such as rivers or lakes when they are easier to see. Other less common methods include baiting (oftentimes with the carcass of livestock that has been attacked due to human-jaguar conflict), poisoning, using metal traps (snares) or gun traps, finding them at their dens, and using lasso or sound lures.

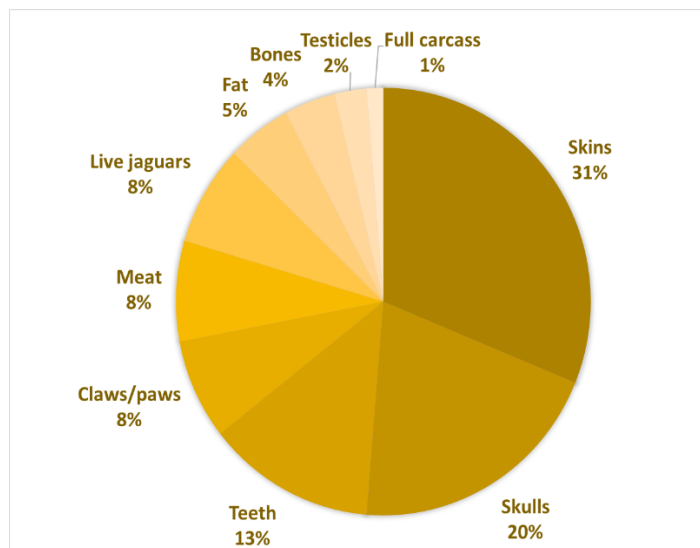
After killing, the extraction of jaguar body parts occurs either at the site where the animal was killed or in nearby villages. The body parts can be sold in their raw condition, or in many cases, they are cleaned, polished or processed into secondary products such as wallets or “jaguar paste³”. Then, the body parts are either kept in that location, or transported to larger towns, urban centers, or tourist destinations, where they can fetch higher prices. Jaguar body parts reach end-consumers by being openly or covertly displayed in markets, jewelry or souvenir shops, or through the efforts of suppliers and intermediaries to directly approach potential buyers in the streets. In other instances, jaguar body parts are traded following a request from the consumers, in which case the transaction is fully covert and harder to identify (Arias and Milner-Gulland, 2019). Increasingly, social media has also played an important role in facilitating the trade in jaguar body parts. For example, preliminary results from a recent investigation of online jaguar trade conducted by WCS revealed that jaguar body parts, and particularly jaguar teeth are being sold across 37 different online platforms, including social media and e-commerce sites. For the case of internationally traded jaguar body parts, seizure events in Bolivia and China indicated that mailing services are used to ship the items to Asia, or are personally taken by the traders in their luggage on commercial flights.

³ “Jaguar paste”: substance produced by “boiling down an entire jaguar carcass in large pans for 5 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”, presumably for export to China (Lemieux and Bruschi, 2019).

Body parts, quantities and prices:

As shown in figure 2, the most common trafficked body parts mentioned in the articles were jaguar skins (31%), followed by skulls or mounted heads (20%), and teeth (13%). Claws/paws, meat and or live jaguars were all mentioned with the same frequency (7.5%). Other body parts mentioned were jaguar fat (5%) and bones (4%). The less common body parts were complete carcasses (1.3%) and testicles (2.5%).

Figure 2 Percentage of body parts



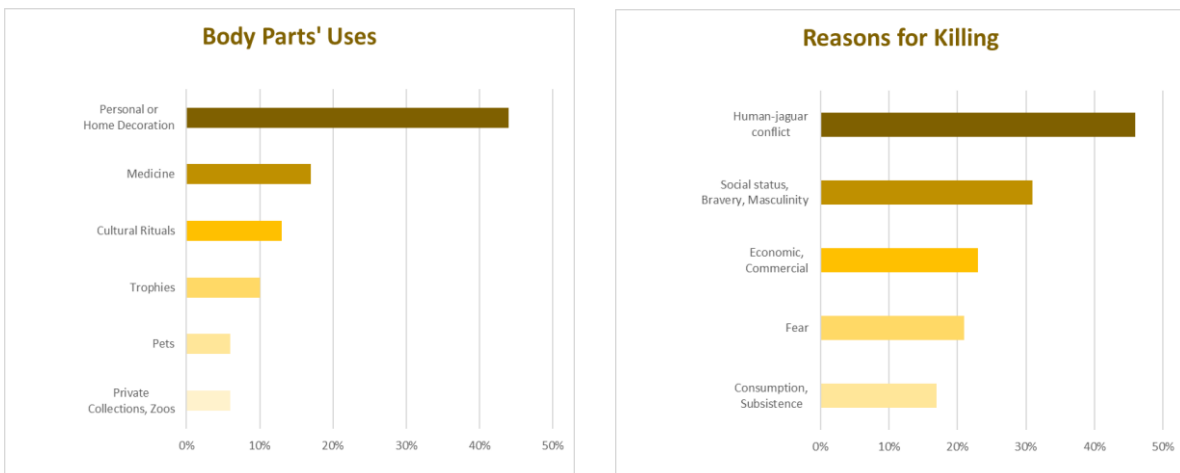
In total, out of the 48 articles described, 18 accounted for the number of jaguars killed (a total of approximately 750 jaguars in 20 years) and only 11 articles discussed quantities of traded items (whole jaguars or body parts). The most commonly traded items were jaguar skins (in low quantities, on average two citations per article). The prices of jaguar body parts varied greatly. For example, jaguar skins were sold from under \$20 USD to \$5,000 USD. Similarly, the price of jaguar teeth ranged from \$5 USD to \$250 USD. The variance in prices has been linked to cultural differences and to the seller's place of residence (Kelly, 2018). Further, Felbab-Brown (2017) points out that differences in prices depend on whether the prices are recorded at the source or in transit or destination locations, and on the level of protection that a species has in a particular country.

Drivers of jaguar trade and body parts' uses:

The articles mentioned several different kinds of motivations for killing jaguars and for either keeping or purchasing jaguar body parts or live specimens. As shown in figure 3, the predominant

reason for killing jaguars was in retaliation for human-jaguar conflict, with 46% of articles pointing to this outcome. Other common killing purposes were to demonstrate social status, bravery or masculinity (31%), for economic or commercial reasons (23%), due to fear (21%), and for personal consumption (of the meat) and subsistence (17%). Meanwhile, some of the uses that were given to jaguar body parts included personal or home decoration (44%), medicine made out of jaguar fat (17%), cultural rituals (13%), as hunting trophies (10%), to be part of private collections or zoos (6%) and to be kept as pets (6%) (for the case of live jaguars). Additionally, Arias and Milner-Gulland (2019) identified other broad scale drivers of jaguar trade for the case of Mesoamerica, which indirectly incentivizes both the supply and demand levels of the trade chain. These include human-wildlife conflict, wild meat hunting, Asian demand, drug trafficking, migration and tourism. The same study, together with Reuter et al., (2018), also identified some institutional, political and legal enabling factors of jaguar trade, including lack of financial and human resources within the conservation community, ineffective law enforcement systems and outdated laws, and corruption among others.

Figure 3 Reasons for Killing and Uses



Recommendations

Based on the analysis' findings, we identified three key categories of recommendations to inform counter wildlife trafficking (CWT) strategies, including: (a) recommendations for Filling Key Knowledge Gaps Concerning Jaguar Trade; (b) recommendations for Shifting the Costs and Benefits of Actors in the Jaguar Trade Chain, and (c) recommendations for Strengthening the Preparedness of the Conservation Community to Address Jaguar Trade (Table 1).

Table 1 Key recommendations (adapted from Arias and Milner-Gulland, 2019)

Recommendations for Filling Key Knowledge Gaps Concerning Jaguar Trade.	Recommendations for Shifting the Costs and Benefits of Actors in the Jaguar Trade Chain (adapted from Cooney et al., 2017)	Recommendations for Strengthening the Preparedness of the Conservation Community to Address Jaguar Trade.
<p>Information about actors</p> <ul style="list-style-type: none"> • Conduct social science research on actors' typologies, drivers, motivations and social networks, through the use of key informant interviews, surveys (using direct and indirect questioning methods), focus groups, participant observation, ethnography, among others. • Use social network analysis, to visualize key actors and their social relationships, and to design more effective interventions that address key actors (nodes) or connections (ties) among them (Clifton et al., 2016). • Conduct a detailed investigation about the role of the Chinese diaspora in the demand for jaguar body parts and other wildlife products, by engaging Chinese researchers who can better understand the culture and the language of those communities. • Address the lack of information on the typologies of jaguar traders or intermediaries, particularly for international trade. <p>Information about markets</p> <ul style="list-style-type: none"> • Investigate the use of jaguar teeth and other jaguar body products in China, and the extent to which they substitute other wild felids such as tigers and lions. • Conduct systematic as well as random visits to physical markets, including jewelry and souvenir shops, and craft markets, to determine the presence of jaguar body parts. • Conduct systematic monitoring of social media and e-commerce platforms, bearing in mind the ethical and privacy requirements of those platforms. <p>Information about trade dynamics</p> <ul style="list-style-type: none"> • Conduct detailed questioning of people who are apprehended by law enforcement efforts, to learn about trade chain networks and dynamics. • Conduct undercover investigations or investigative journalism to uncover the identity of traders, the prices, uses, methods, and routes used to smuggle jaguar body parts. • Analyze seizure databases, social media and e-commerce platforms, secondary data (including news reports, grey and academic literature), searching for incidents of jaguar trade and changes in trading trends over time. • Establish and expand a network of civilian informants, providing incentives when necessary, and ensuring that triangulation is in place to avoid false information. 	<p>Increasing benefits from jaguar conservation</p> <ul style="list-style-type: none"> • Strengthen land tenure rights and ownership of resources by local communities, with appropriate management plans. • Provide nature-based incentives, such as payment for ecosystem services (PES), jobs in jaguar monitoring or wildlife conservation, and jaguar-based tourism (when appropriate). These incentives must be properly distributed among individuals. <p>Decreasing the costs of living with jaguars</p> <ul style="list-style-type: none"> • Create and strengthen financially sustainable human-jaguar conflict programs. <ul style="list-style-type: none"> ◦ Inform communities about the existence of the program and respond to reports of human-jaguar conflict, conducting site inspections to verify attacks. • Reduce financial losses resulting from mismanagement of livestock and agricultural lands, by: <ul style="list-style-type: none"> ◦ Protecting crops from herbivores through physical barriers or buffer areas. ◦ Enhancing productivity, reaching sustainable yields. ◦ Improving livestock health (through immunizations, better nutrition, veterinary check-ups and fertility management). ◦ Preventing livestock accidents (including but not limited to jaguar attacks) and/or theft through proper corralling and monitoring of livestock. • Mitigate jaguar attacks by: <ul style="list-style-type: none"> ◦ Encouraging proper livestock carcass disposal. ◦ Implementing light or sound alarms, bells. ◦ Introducing guard donkeys or dogs. ◦ Humane removal of "problem-jaguars". • Establish incentives for tolerance <ul style="list-style-type: none"> ◦ Livestock insurances, jaguar-friendly certification for meat and dairy products, cattle restitution programs. <p>Reduce the benefits of engaging with IWT</p> <ul style="list-style-type: none"> • Reduce the social acceptability of killing and trading jaguars through awareness building and behavior change methods (based on Wallen and Daut, 2018). <ul style="list-style-type: none"> ◦ Understand target audiences and baseline killing and consumption trends. ◦ Implement targeted behavior change interventions, following the frameworks of social marketing, human-centered design, or theory of change, including proper evaluation of outcomes ◦ Promote the education and law awareness of local communities and potential consumers (including 	<p>Legal reforms</p> <ul style="list-style-type: none"> • Promote legal reforms that typify IWT as a serious offence with proper deterrent strategies (adequate fines and imprisonment) and opening more lines of investigation and evidence. • National laws should be aligned with CITES regulations. • Strengthen laws for community management of and benefit from wildlife in order to increase the perceived fairness of wildlife laws. <p>Strengthening governance</p> <ul style="list-style-type: none"> • Build the capacity of wildlife authorities by, <ul style="list-style-type: none"> ◦ Providing institutional, financial and technical support to desk and field staff, particularly in protected areas. ◦ Providing training and access to databases and information, to move from a reactionary position towards being capable of conducting IWT intelligence investigations. • Promote partnerships among government, NGOs, communities and academia. <ul style="list-style-type: none"> ◦ Coordinate research projects among wildlife authorities and universities, to design research that targets species with key information gaps, at relevant geographic scales, as needed by decision-makers. ◦ Strengthen collaborations with the third sector, particularly in areas of key resource gaps, promoting collaborative co-management of jaguar habitat and other areas of concern. ◦ Promote good relationships among wildlife authorities and local communities, by providing services that are valued by the local people. • Corruption and Safety <ul style="list-style-type: none"> ◦ Fighting corruption through strategic staff rotation (that is not detrimental to ongoing work), and by installing transparent auditing systems, particularly when handling wildlife trade and wildlife possession licenses. ◦ Guarantee the safety of the conservation community through proper insurance and institutional collaborations with the police or military in areas of high risk.

Recommendations for Filling Key Knowledge Gaps Concerning Jaguar Trade.	Recommendations for Shifting the Costs and Benefits of Actors in the Jaguar Trade Chain (adapted from Cooney et al., 2017)	Recommendations for Strengthening the Preparedness of the Conservation Community to Address Jaguar Trade.
<p>Leveraging technologies</p> <ul style="list-style-type: none"> • Monitor hunting inside and outside protected areas, expanding areas currently monitored by camera traps, acoustic technologies or SMART. • Invest in overflights/drone technologies to conduct aerial surveys to investigate the extent of illegal incursions and jaguar habitat loss. • Establish partnerships with genomic labs in order to test confiscated jaguar items that are unidentifiable, such as jaguar meat, including DNA and isotope analyses. When local testing capacity does not exist, fast and confidential CITES permits for exporting suspicious samples to labs in foreign countries should be facilitated. • Invest in easy to use, accessible and portable technologies that make it easier to identify the species and origin of wildlife samples, particularly if those are donated to local universities or local authorities. • Increase the detectability of traded jaguar products through sniffer dogs, electronic noses. <p>Monitoring</p> <ul style="list-style-type: none"> • Monitor jaguar and jaguar prey populations, particularly in areas close to known IWT markets, routes or threats. • Monitor changes in the prices of jaguar body parts. • Register all jaguars kept in captivity in private collections, licensed or unlicensed zoos and rescue centers. Ideally, DNA samples of captive individuals should be taken and added into a collaborative and shareable database that enables matching confiscated parts to specific jaguar populations. Constant monitoring of births and deaths of jaguars in captive facilities should take place to ensure that individuals are not being replaced with jaguars taken from the wild. 	<p>tourists), focusing on risks as well as using a positive framing centered on the benefits of jaguars and conservation.</p> <ul style="list-style-type: none"> ▪ Awareness campaigns at tourist destinations should target jaguar teeth, but also look-alikes such as crocodile, shark, sea lion and smaller carnivore teeth, as their availability sends mixed messages. • Build trust among targeted audiences and wildlife authorities. • Leverage social influence by someone similar or desirable, such as culturally relevant celebrities, authorities, etc. • Lower the prices of jaguar products so that it is not worth it to engage in trade, providing sustainable alternatives to jaguar body parts. • Raise the opportunity costs of IWT by offering alternative livelihoods, or by creating livelihood alternatives that are conditional on jaguar conservation. <p>Increasing the costs associated with engaging in IWT</p> <ul style="list-style-type: none"> • Increase the risks of detection and apprehension. <ul style="list-style-type: none"> ○ Strengthen road checks and border patrols. ○ Monitor entry and exit ports, checking shipping documentation for licenses and inconsistencies. ○ Engage communities in law enforcement. ○ Provide the legal mandate for wildlife authorities to carry out seizures and apprehensions. ○ Provide resources to enforcement staff, particularly vehicles and fuel, including on weekends. • Increase the chances of successful prosecution. <ul style="list-style-type: none"> ○ Provide appropriate training to judges. ○ Stimulate the establishment of specialized environmental courts, with sufficient staff to handle the cases. • Increase material costs <ul style="list-style-type: none"> ○ Raise the price of ammunition or other poaching equipment, as well as implementing barriers to accessing weapons, such as gun registration controls, hunting licenses, etc. 	

Conclusions

Jaguars are among the most emblematic species of Latin America. They are of great socio-ecological importance, keeping ecological balance as a keystone species, and being present in the cultural heritage of several pre-Hispanic cultures and of Latin American society at large. However, jaguars are also perceived as a nuisance and a resource to local communities, and increasingly, to external actors seeking to profit from their valuable body parts.

The recent re-emergence of jaguar trade, domestically and internationally, has alarmed the conservation community and brought attention towards IWT in Latin America. This attention has elevated IWT as a key threat to jaguars, along with habitat loss and human-wildlife conflict. This prioritization and future decision making to conserve jaguars must be based on evidence, in order to effectively allocate funding and efforts that guarantee the long-term survival of the species.

This report aimed to provide key information about the current state of jaguar trade in the region, based on a comprehensive search of evidence available in the academic and grey literature. Jaguar trade was represented in the literature as an opportunistic and domestic issue across countries, with local actors, and particularly low-income communities, involved at all stages of the trade chain. Given this current domestic focus, the report emphasizes the adoption of initiatives that target local communities living in close proximity to jaguars, aiming not only to reduce the cost associated with living next to large predators but also to increase the benefits that jaguars and nature conservation have for them. The results also pointed to a less prevalent, but important rise in international cases of jaguar trade, particularly towards Asia, that threatens to change the opportunistic nature of jaguar trade towards a targeted endeavor with potentially devastating effects for jaguar populations. Therefore, the report suggests further research into the role of the Asian market and the Chinese diaspora in the jaguar trade, without disregarding other lines of investigation towards local traders and other consumers, such as tourists. Finally, the literature pointed out to wider socio-economic, political and institutional factors that enable jaguar trade. As such, the report recommends addressing legal and governmental challenges in the application of the law, and particularly, strengthening the governance structures among stakeholders in the conservation community.

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