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One *Panthera onca* and Six Jaguars: Jaguar Conservation in the Anthropocene

by

Gabriella Richardson

A Thesis

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for the degree of

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ABSTRACT

ONE *PANTHERA ONCA* AND SIX JAGUARS: JAGUAR CONSERVATION IN THE ANTHROPOCENE

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University of Guelph, 2023

Advisor
Dr. Karine Gagné

Jaguars, the *Panthera onca* species, are top feline predators in 18 Latin American countries. Jaguars are also increasingly threatened by climate change and anthropogenic activity. This study provides insight into Shuar, farmer, conservationists, and conservation volunteers' perceptions of jaguars in Ecuador, a country where limited research on jaguars exists. Informed by ethnographic accounts, multispecies ethnography, conservation, Anthropocene, and affect theory literature in anthropology, this research presents six social constructions emerging from one *Panthera onca* species - the apex predator, affective, threatening, semi-wild, digital, and charismatic jaguars. These jaguars demonstrate how we affect and are affected by an elusive Amazonian predator. These social constructions shed light on how multispecies relationships, worlds, domesticated and wild distinctions are implicated in environmental and jaguar conservation models in a localised Amazonian Anthropocene and the Anthropocene on a planetary scale.

DEDICATION

This project is dedicated the *Panthera onca* species. It is for those jaguars currently living, deceased, and yet to be born.

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TABLE OF CONTENTS

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1. Background, Purpose, and Goals

Jaguars, *Panthera Onca*, are the largest feline predators in the Americas. According to the 2016 International Union for Conservation of Nature report, jaguars are a "Near Threatened" species, although their current population is likely even lower (Quigley et al. 2017). Jaguars live in 18 countries from Mexico to Argentina (World Wildlife Fund (WWF) 2023). Jaguar populations are abundant in Brazil's Pantanal, a wetland region, and the Amazon rainforest. Previous research on jaguar populations have mainly studied the species from cosmological, ecological, scientific, and conservation perspectives. A few studies have examined the perceptions a group of people hold towards the jaguar (for example: Álvarez and Zapata-Ríos 2021; Fort et al. 2018; Marchini and Macdonald 2018). The implications people's perceptions have for the species' future, multispecies relationships, social constructions of the jaguar, and conservation efforts, have yet to be examined.

Overall, studies on jaguar populations in Ecuador are limited. My research goal was to explore ethnographic accounts of people's relationships with and social constructions of jaguars in Ecuador, while considering the impact of jaguar conservation on these relationships. My research questions were:

1) How do people relate to jaguars?
2) How do conservationists, the Shuar, rescue centre volunteers, and farmers perceive jaguars?
3) What are the jaguar conservation strategies used by non-governmental organisations (NGOs), the government, and communities in Ecuador?

The ethnographic accounts presented in this study illustrate how emotions and bodily intensities are experienced when people encounter a socially constructed and physical jaguar. This study also examines conservation efforts which implicate the jaguar in Ecuador, and how they affect people and multispecies relationships. In doing so, this study also illustrates how social constructions of the jaguar muddle distinctions of domesticated and wild. More generally, this study also presents an aspect of human and animal relationships in an Amazonian Anthropocene, a geological era characterized by human activity's crucial implications on the environment and non-human species, the consequences of which need to be considered within a regional context.

1.2. Theoretical Framework

1.2.1. Wild and Domesticated/Nature and Culture

The wild/domesticated and nature/culture dichotomies are foundational theoretical underpinnings to this thesis. Domestication occurs when animals are under man's dominion and are bred to serve the interests of humans (Darwin 1986; Del Savio and Mameli 2020). They are thought to be non-social objects without agency or sentience (Simon 2015). Domesticated non-humans may be livestock, pets (companion species) or plants (Haraway 2013; Kawa 2016; Shanklin 1985). Wilderness in the eighteenth century referred to "desolate", "barren" and "wasteful" landscapes, whereas currently wilderness refers to "an antidote of our human selves," essentially the natural environment on planet Earth that we must recover and protect (Cronon 1995; Simon 2015). Wilderness and nature are thought to be where culture and humans are not. Furthermore, wild animal behaviour is understood to be instinctual and natural behaviour in absence of human interference and sociality (Simon 2015).

The "wild" versus "domesticated" dichotomy is anthropocentric and often based on Western assumptions (Descola 2013; Simon 2015). Not all relationships with non-humans can be explained in terms of domestication, as people have spiritual, affective (see Chapter 3) and cosmological relationships with non-humans. These relationships may be based on mutual influence and existence, rather than human domination or control over non-humans (Leach 2003). Secondly, a pure "wilderness" or "nature" without any human impact is more of a created concept rather than a reality, as humans such as Indigenous communities living in forested environments have manipulated plant species, hunted in these landscapes and have lived on lands appearing as "wilderness" to some (Cronon 1995; Descola 2013; Kawa 2016). Also, wilderness and nature are defined and valued differently. A well-known example is one presented by Descola (2013) in which a woman from the Amazon rainforest travels to a garden where she states that it is nice to finally see "nature". In the chapters to follow, I will illustrate how wild and domesticated are implicated in jaguar conservation efforts and people's perceptions and social constructions of the jaguar. Notions of wild and domesticated are muddled, especially in the context of jaguar care at rescue centres (see Chapter 5).

1.2.2. The Anthropocene

In the Anthropocene, also known as the 6th mass extinction, humans are described as "geological agents" to reflect the scale of human impact on species extinction (Chakrabarty 2009). The Anthropocene, as an analytical tool, has inspired new thinking and collaborations among scholars, and challenges the nature/culture divide in anthropology (Matthews 2020). Multispecies ethnographies have recognized the intertwined connections between human and natural histories in the Anthropocene (Matthews 2020; Rose, Dooren, and Chrulew 2017). The Anthropocene has also been critiqued as scholars claim the Anthropocene overemphasised

human mastery, and does not recognize differential human responsibilities, such as the main actors in imperialism and capitalism (Chakrabarty 2009; Matthews 2020). Consequently, scholars have made efforts to indigenize, de-colonize and localise the Anthropocene to reflect on the ground realities amongst communities in particular places (Gagné 2020; Hecht 2018; McEwan 2021; Morrison 2015; Todd 2015;).

The Amazonian rainforest spanning across eight countries has been deforested and depleted due to the valuable materials it provides, such as timber and rubber. This exploitation of the Amazon is often described in conjunction with the arrival of Europeans. Indigenous and forest communities' taming of the landscape and contribution to the Anthropocene is minimal in comparison to the scale of extractive industries, agriculture, and urbanisation today (Descola 2013; Kawa 2016; Roosevelt 2013). These industries in tandem with the development of technologies and machinery have accelerated the Anthropocene at an alarming rate, often leaving local and Indigenous communities to deal with the consequences. In order to address the generalised notion of the Anthropocene, scholars have described the Anthropocene as being anchored in a particular place. Hecht (2018) describes an African Anthropocene, while Gagné (2020) presents a Himalayan Anthropocene. These "Anthropocenes" are not representative of an entire region or population but represent local experiences of the Anthropocene which is being experienced on a planetary scale (Hecht 2018; Gagné 2020). In a similar fashion, drawing on my fieldwork in Ecuador, I present *an* Amazonian Anthropocene.

1.2.3. Anthropology of Conservation

Conservationists aim to create a more "responsible Anthropocene" by engaging in counter-extinction projects, namely, those prioritising the protection of biodiversity and well-being of humans (Dooren 2014; Van Dyke and Lamb 2020). Conservation refers to protecting

something or preventing wasteful use of a resource (Oxford English Dictionary n.d.; Sandbrook 2015). Conservation actions may be aimed towards the protection of landscapes, such as forests or deserts, or conservation of particular species such as micro-organisms, plants or animals (Sandbrook 2015). This study will contribute to the anthropology of animal conservation through a study of the jaguar (*Panthera onca*).

Conservationists often rely on the "conservation narrative" in their discourse. This narrative conveys a detailed causal story of a threatened species or environment due to anthropogenic activities since the industrial revolution which provides clear points of action for conservation agendas (Hussain 2019; Van Dooren 2015). Such narratives also rely on the presentation of scientific, ecological facts and "solutions" or actions which separate nature from human interference and cultural practices (Cepek 2012; Davidov 2013; Hussain 2019). The jaguar conservation narrative is also a causal story, in which extractive industries and overhunting of local communities are blamed for decreases in jaguar habitat and prey.

Conservationists working within governments and non-governmental organizations (NGOs) often work to protect nature within colonial and political structures, relying on the cost-benefit analysis calculated by development actors (Cepek 2012; Hussain 2019; Parreñas 2018). Several ethnographic works highlight such points. For example, Parreñas (2018), studied how decolonization, colonialism, indigeneity, feminism, and violence explain orangutang care and conservation in Malaysian Borneo rehabilitation and rescue centres. These colonial legacies have determined who may live and who will become extinct. Cepak's (2012) *A future for Amazonia* explains the environmental politics surrounding the Cofàn people in Ecuador and their territory and how they traverse colonisation, extractive industries in attempting to care for their land and resources how they see fit. Throughout this thesis, I discuss the relationships that social actors

forge with the jaguar while keeping in mind colonial legacies and government structures in Ecuador.

Anthropology of conservation research has highlighted the negative implications of conservation projects. For example, creating protected areas and community-based conservation projects has limited local peoples' access to natural resources and ecosystem services (Igoe 2006; Orlove and Brush 1996; see Chapter 2). Conservation laws and initiatives have also not reflected lived realities. For example, Mathur (2021a; 2021b) critiques Indian conservation law which requires that big cats only be hunted if it is positively identified as the original perpetrator. However, according to ethnographic examples, accurately identifying the "man-eater" before killing it is unlikely. Additionally, Hussain (2019) explains several shortcomings of snow leopard conservation initiatives, namely their ability to recognize predation of livestock in local communities as a grave concern. Similarly, I also consider the concerns of farmers and the Shuar regarding jaguar conservation initiatives.

Anthropologists have also critiqued conservation NGOs' mission to "do good" for the natural environment. Larsen and Brockington (2018) describe conservation NGOs as being boundary institutions, not only on the boundary of science and policy, but engaging with multiple actors and institutions. A major critique of conservation NGOs is that they are becoming increasingly business-oriented, succumbing to neoliberalism and capitalist gain. (Larsen and Brockington 2018). For example, evidence presented in Hussain's (2019) work suggests snow leopard predation on livestock has improved its population numbers. However, snow leopard conservation organisations continue to present carefully selected "facts" that suggest snow leopards are still severely threatened, thus resulting in additional funding for snow

leopard conservation projects. I also consider the economic challenges of conservation and commodification of the jaguar (see Chapter 7).

Anthropologists may also positively contribute to conservation. Anthropology provides conservationists with knowledge and perspectives that can broaden and improve their projects and goals. Poirer et al. (2017) explain how anthropologists and conservationists can explain human and non-human relationships, interdependence, and existence in light of the Anthropocene. Braje and Rick (2013) propose how anthropology can contribute to conservation by distinguishing between natural and anthropogenic changes in the environment and providing information on novel ecosystems - human built and modified ecosystems in the Anthropocene (Hobbs, Higgs, and Hall 2013). While conservation and ecological studies explain species in connection with their natural ecosystem, social sciences can connect the species to human society (Hussain 2019). This thesis contributes to anthropology of conservation by illuminating the understanding of social actors and their relationships with the jaguar in Ecuador, while also raising questions about conservation in an Amazonian Anthropocene Additionally, the experiences of conservationists and their motivation to care for the environment and animals are limited in conservation ethnographies (Kiik 2019).

1.2.4. Multispecies theoretical framework

Though multispecies ethnography, its terminology, and its point of view became popular in the 21st century, anthropologists' interest in relationships between humans and animals in terms of multispecies ethnography, is not new. Multispecies ethnography moves past human exceptionalism and seeks to examine human relationships with non-humans, focusing on how humans and non-humans shape each other (Kirksey and Helmreich 2010). According to Tsing (2012) "human nature is an interspecies relationship" (p.141). Morgan's 1868 *The American*

Beaver was one of the earliest studies of animals presented by an anthropologist (Morgan 1868).[1] Across Canada, multispecies relationships historically have been integral in scholarship on Indigenous communities.[2] Although these sources do not explicitly mention multispecies ethnography, this evidence suggests the importance and relevance of recognizing multispecies relationships. My study sheds light on a multispecies world in which jaguars and humans mutually influence each other, though with minimal physical contact.

Current multispecies works have studied human relationships with a variety of non-humans, such as animals, glaciers, forests, plants, bacteria, leopards, orangutans, goats, cattle, dogs, and many more (Gagné 2019; Haraway 2013; Hussain 2019; Kohn 2013; Kirksey 2014; Mathur 2021b; Miller 2019). Multispecies ethnography has made novel theoretical contributions to anthropology. For example, studies have considered how multispecies relationships elicit affect - an unconscious response to stimuli (Parreñas 2012; see Chapter 5). A focus on caring practices and attitudes is a unique contribution of multispecies ethnography to anthropology of conservation. In this context, care refers to one's moral obligation and responsibility toward humans or non-humans (Gagné 2019; Sivaramakrishnan 2015). Care in multispecies ethnography considers proximate interactions and affect amongst social actors, rather than focusing on systems, structures and rationales in conservation (Gagné 2019; Sivaramakrishnan 2015; see Chapter 5). There are several notable multispecies works which make unique

[1] Morgan discusses the beaver's ecological activities such as dam construction, the creation of burrows, trails and ultimately argues that animals should be considered living and thinking beings like humans (Morgan 1868; Feeley-Harnik 2021). Morgan's argument considering the agency and ontology of animals would later become central theoretical themes in multispecies ethnographies.

[2] This literature discusses archaeological evidence of hunting animals such as bison, caribou, and bighorn sheep, and using animal remains for tools or embroidery (Allan 2018; Andrews, Mackay, and Andrew 2012; Van Der Sluijs et al. 2020). Current literature discussing Indigenous peoples' relationships with animals in Canada highlights grief and loss of cultural traditions experienced when animal populations depreciate, perceptions of predators, and other species living in Canadian landscapes (Cunsolo et al. 2020; Chruszcz et al. 2003).

contributions to multispecies relationships. For example, *How Forests Think: Towards an Anthropology Beyond the Human* by Eduardo Kohn (2013) explores the ontological properties among the Runa Indigenous people in the Ecuadorian Amazon and how they relate to other kinds of beings, exploring what makes humans distinct. Haraway's (2013) *When Species Meet,* investigates human-animal relationships with domestic species. Govindrajan's (2018) work *Animal Intimacies,* drawing on fieldwork from the central Himalayas in India, examines what it means for humans to live and die in relation to animals, along with moments of care, violence intertwined with politics and kinship in defining human and animal "relatedness". Specifically, my thesis contributes to multispecies scholarship focused on "big cats". Mathur's work focuses on beastly identification and "crooked cats", felines such as leopards and tigers, who are "man eaters" in India (Mathur 2021b; 2021a). Additionally, Hussain's (2019) work discussing snow leopard conservation contributes to what Hussain (2019) calls "a jargon free multi species mutualism" in which multispecies relationships are constructed in conflict and accommodation. My participants also describe their relationships and perceptions of jaguars in light of conflict, accommodation but also care (see Chapters 5,6).

1.2.4.1. Ontology, Cosmology and Perspectivism in Multispecies Worlds

Ontology may be understood as the study of reality which contains human and non-human constructed worlds (Kohn 2015). Ontologies are different ways of being and knowing the world. Multispecies ethnography represents an "ontological turn" in the discipline, as human worlds are studied and understood in relation to non-human others – as opposed to putting humans at the centre of interactions (Kohn 2015; Latour et al. 2018). Multispecies ontologies are often present in Indigenous cosmologies, which incorporate human and non-humans on the same

or similar ontological plane.[3] Additionally, Indigenous cosmologies and their multispecies ontologies challenge the nature and culture divide in anthropology. Several anthropological works in Amazonia illustrate this. For example, Descola's (1994), *In the Society of Nature,* draws on fieldwork among the Achuar Indigenous peoples in the Upper Amazon to explain how elements of Amazonian ecosystems, namely nature, are interwoven in their cosmologies, and thus have an influence on societal structures. Descola (1994) describes how according to Achuar beliefs, humans and plants would each possess a "soul" which entitles them to be classed as "persons", with a consciousness. Reichel Dolmatoff's (1976) work examining shamanism, namely "yagé" (ayahuasca rituals), and the Turkano Indigenous people's cosmological beliefs as a form of "ecological adaptation" also illustrate the continuum of intertwined human and non-human relationships, with not only animals but also plants (Reichel-Dolmatoff 1976). These Amazonian mythologies and cosmologies, irreducible to a clear nature and culture divide prompted Brazilian anthropologist Eduardo Viveros de Castro to coin the term "Perspectivism", which explains "culture" as having multiple "natures" (Candea 2012; de Castro 1998b; Kohn 2007). Only entities which perform key symbolic, practical roles, are enemies, or prey for human beings, are included in this perspectivism (de Castro 1998a). This is evident in Weiss' (1972) ethnographic accounts of the Campa Indigenous peoples in Peru who perceive the world as being full of "relative assemblances" - that beings see the same thing differently. For example, the Campa believe that "in the eyes of jaguars, human beings look like peccaries to be hunted" (Weiss 1972, 170; see Chapter 3).

[3] For example, Indigenous creation stories across Canada describe spirits and animals as intrinsically part of the world and creation of humankind (MacLeod 2021).

1.2.4.2. “Becoming”

Coined by Donna Haraway (2013), the notion of “becoming” has been presented in multispecies works. “Becoming” occurs when one enters a new relational context. It refers to new relationships forming as a result of “non-hierarchical alliances, symbiotic attachments, and the mingling of creative agents” (Deleuze and Guattari 1987 as cited in Kirksey and Helmreich 2010). Haraway (2013) states that becoming is more often a case of becoming *with*, as human beings become one in the company of others. Becoming often takes place in “contact zones” (Haraway 2013). Defined by asymmetrical power relations, contact zones are spaces where subjects or beings constitute their relationship to each other, considering co-presence and interaction (Haraway 2013; Kirksey and Helmreich 2010). Becoming formed in these contact zones determine who exists in the world (Haraway 2013; Kirksey and Helmreich 2010). I will draw on these concepts of becoming and contact zones when discussing people’s relationships with jaguars in different contexts. Los Jaguares Rescue Centre, a site of both wildness and domestication, is a significant contact zone discussed in this study. It is also clear that some undergo “becoming with” jaguars as companions, but also becoming with them unwillingly and fearfully as people and jaguars share the same habitat/ home.

1.3. The Jaguar in Literature

Previous studies of jaguar populations are mainly from ecological, natural science, and conservationist perspectives. Previous studies conducted mainly in Brazil, but also Peru, Belize and Ecuador, have shown that the Amazon is a core habitat for the jaguar (Blake et al. 2014; De Barros et al. 2014; Mena et al. 2020; Tobler et al. 2013). Protected areas such as Indigenous reserves, national parks and environmental management areas in Amazonia are large enough to support long term jaguar conservation, while abundance of prey are also factors influencing

suitable jaguar habitats (De Barros et al. 2014; Rabelo, Aragón, and Bicca-Marques 2019; Sollmann, Tôrres, and Silveira 2008; Blake et al. 2014). Several studies have also assessed jaguar population monitoring techniques and strategies, such as using camera-trapping, DNA collection and conducting interviews with local informants (Blake et al. 2014; Polisar et al. 2017).

Existing anthropological literature and ethnographic of Amazonian perspectivism and cosmologies touch on the idea of "jaguar-becoming"- "where a person may transform into a jaguar not in literal body form, but the person enters the new relational context (worldview and perceptions) of the jaguar" (Haraway 2013; Kohn 2013). Amazonian shamans may actively seek this state of jaguar-becoming (de Castro 1998). For example, a Wari' shaman even claimed that he had killed and eaten a man in a state of jaguar-becoming because he saw the man from the jaguar's point of view - as an enemy or prey (de Castro 1998). Archaeological evidence and existing literature suggest that individuals in Amazonia who possess shamanic powers may acquire a jaguar habitus (Clark and Pye 2006; Kohn 2007; Marris 2016; Preston 2015; Shepard 2014). This is known as a 'were-jaguar' state which gives humans predatory power while alive, but also allows their souls to inhibit the bodies of jaguars when they die (Kohn 2007). For example, in order to become 'were-jaguars', Kohn (2007) describes how the Runa people may ingest the bile of jaguars. Kohn (2013) found that shamans in the region claimed to see were-jaguars in the forest during *ayahuasca* induced visions. Ayahuasca (also called *yajé*) is a hallucinogenic beverage made using the ayahuasca vine and *psychotria viridis* plant which is used throughout South America for shamanic and spiritual rituals. The presence of jaguars in plant hallucinogenic visions and practices is also a very common motif (Barletti 2022).

Most studies focusing on community perceptions of jaguars have been conducted in Brazil, with some studies focusing on the Bolivian Amazon (Knox et al. 2019). Jaguar-education related studies have been conducted in Ecuador (Álvarez and Zapata-Ríos 2021). Communities living near jaguars and especially farmers in Amazonia and the Pantanal region, often fear and dislike jaguars (Cavalcanti et al. 2010; Knox et al. 2019; Marchini and Macdonald 2020). Local communities living near jaguars in the Bolivian Amazon reported acceptance of jaguar killing and that jaguar persecution is relatively common (Knox et al. 2019). This acceptance of jaguar killing has been linked to lack of education (Álvarez and Zapata-Ríos 2021; Elildo and Carvalho 2019). However, communities mainly attribute the loss of their domestic livestock or animals to jaguar attacks (Marchini and Macdonald 2012). This was a significant factor influencing the dislike of jaguars, acceptance and prominence of jaguar killing in Amazonian cattle ranching communities (Marchini and Macdonald 2012; Zimmermann, Walpole, and Leader-Williams 2005). Previous studies have also revealed that communities reported disappearances of people and livestock were attributed to jaguar attacks, without there being any proof of jaguar attacks (Knox et al. 2019; Marchini and Macdonald 2018). In fact, Marchini and Macdonald (2018) found that perceptions of cattle ranchers and the blame they attribute to jaguar attacks for loss of cattle in Brazil is shaped by hearsay rather than experience. It is worth noting that jaguars attacking humans are rare occurrences which only happen when the animal is provoked. This thesis provides an anthropological insight into the perceptions of communities in Ecuador. Kohn's (2007; 2013), de Castro (1998), and Descola (2014) mainly focus on the cosmological context of the jaguar whereas this study brings peoples' experiences, perceptions and interactions with the jaguar in conversation with conservation.

1.4. Research Design

1.4.1. Field site

Ecuador is a culturally, biologically and environmentally diverse country in South America which has a population of 17.8 million people (World Bank 2022). Ecuador borders Peru, Colombia and the Pacific Ocean and is split into 24 provinces. The principal language spoken in Ecuador is Spanish, as Spanish conquistadors landed in Ecuador in 1531(Niemann et al. 2013). Indigenous languages such as Kichwa and Shuar are also commonly spoken as there are 14 distinct groups of Indigenous peoples who live in Ecuador (IWGA 2022). Ecuador is home to 10% of the world's plant species, 8% of the world's animal species and 18% of the world's bird species (Embassy Ecuador n.d.). There are over 46 different types of ecosystems in Ecuador, with coastal, highlands and the Oriente (Amazon Rainforest) being the most prominent terrains (Embassy Ecuador n.d.) (see Appendix A).

Politically, Ecuador's history is characterised by the rule of ancient civilizations, Spanish colonisation, and political change and conflict, all through which Indigenous resistance and struggle is apparent. The Incan empire began expanding into Ecuador in the mid-fifteenth century. In 1533 Spanish conquistador Sebastian de Belalcazar conquered Quito, renaming it San Francisco de Quito, where he also built a Belen Church in 1534 (Britannica, The Editors of Encyclopaedia 2023; Lauderbaugh 2012). In 1535, the Galapagos Islands were explored and the coastal city of Guayaquil was founded (Lauderbaugh 2012). In 1541 Spanish conquistadors led expeditions into the Oriente (Lauderbaugh 2012). In 1625, the Spanish Inquisition was established in Quito, and Franciscan missionaries began settling in the Eastern Amazon's Napo River area in 1633 (Lauderbaugh 2012). During this time of colonial expansion, missionaries and Spanish colonists made contact with Indigenous communities from the coast to the Amazon in

Ecuador. While conducting fieldwork, I found that towns and cities throughout the Oriente provinces of Morona-Santiago and Pastaza had a notable presence of Catholic influences such as Virgin Mary statues and churches, and Indigenous clothing, accessories, and artwork.

Spanish rule over Ecuador continued from the mid-seventeenth century until the country became independent in 1822 (Lauderbaugh 2012). After Ecuador's independence, border disputes with neighbouring Peru were quite frequent. Armed conflicts occurred between the two nations in 1829, 1859, 1903, 1941, 1981 and 1995, many of which took place in Amazonia (Ecuador.com 2023). Ecuador and Peru eventually signed a peace accord at the beginning of 1998, with the assistance of American mediation (Ecuador.com 2023). During the 1980s, Indigenous movements and political resistance became more organised at national and provincial levels. In 1986 the Confederation of Indigenous Nationalities in Ecuador (CONAIE) was created (Clark and Becker 2007). CONAIE has given Indigenous peoples recognition in political discussions. The group has also blocked Pan-American highways, organised protests, and has appealed to end land disputes between the highlands (Sierra) and the Ecuadorian Amazon (the lowlands) (Clark and Becker 2007).

Additionally, the Pachakutik Plurinational Unity Movement – New Country, a left-wing Indigenous political party founded in 1995, provided voters with the opportunity to have Indigenous interests represented in elections (Mijeski and Beck 2011). In 2021, to the surprise of many, the Pachakutik party almost made it to the second round and secured 27 out of 137 seats in the legislature (Gordillo 2021). While conducting fieldwork in Macas, I frequently saw the Pachakutik flag hanging outside people's homes and from people's cars. I even saw a Pachakutik rally through the streets of Macas. This is not a surprise, as the current leader of the province (Prefect) Rafael Domingo Antuni Catani, serving a term from 2019-2023, is of Shuar nationality

and has previously served as the National Coordinator of the Pachakutik movement (‘Speakers at Yucatan Annual Meeting, n.d.). Overall, Indigenous identity and representation is prominent in Morona Santiago province, which makes it especially important to recognize Shuar cosmology and perspectives in my study of the jaguar.

Ecuador’s government has implemented conservation strategies and initiatives. In 2008, the Ministry of the Environment began the Socio-Bosque (SB) program, which aims to provide economic incentives to land/ forest owners to ensure their protection (‘Ecuador: The Socio Bosque Program’, 2018). According to Ecuador’s Ministry of the Environment (MAE), 1,668,971 hectares of forest have been preserved due to the SB program. In 2008, Ecuador became the first country in the world to recognize and protect the “rights of nature” in its constitution (Serrano 2018). Conditions and applications of “the rights of nature” were updated in a reform made to the *Organic Code on the Environment* in 2021, which aims to ensure people live in an ecologically balanced environment (IEA 2022). Under this code, the rights of nature must be guaranteed by the state, the activities of corporate or industrial activities must be restricted to protect the rights of nature, and specific measures and plans must be identified to protect endangered species and ecosystems (CDER 2021).

These environmental initiatives and legislation are also subject to criticism. There have been concerns about equitable and consistent payments for landowners enrolled in the SB program, as payments were suspended from 2015-2017 and the MAE still expected landowners to abide by the SB program regulations (Etchart et al. 2020). Additionally, the “rights of nature” has placed more responsibility to protect nature on marginalised communities rather than industrial industries. In Ecuador extractive industries such as mining, oil drilling and agro-industries are favoured activities for profit, worsening environmental damage and deforestation

rates (Cardona 2020). In fact, Ecuador had the highest rate of deforestation based on its size when compared with other countries in the Western Hemisphere (Cardona 2020).

I spent 8 weeks in Macas, the capital of Morona-Santiago Province in Ecuador from July 27th to September 29th, 2022. Macas is located in south-eastern Ecuador and is known as the "emerald of the east" due to its location east of the Andes mountains and at the edge of the vast and dense Amazon Rainforest (see Appendix A). Morona-Santiago is one of the five provinces that borders Sangay National Park, home to two active volcanoes and many valuable ecosystems. The Upano river passes through Macas, though the river no longer flows steadily near the city's entrance due to a volcanic debris blockage after Sangay volcano erupted (see Appendix B).

Settlement in present day Macas began after the Spanish conquest. When Macas was founded by José Villanueva Maldonado in the mid 16th century it was originally referred to as "Sevilla de Oro" (Golden Seville) as gold mines in the surrounding areas created wealth and prosperity for the city (Britannica, The Editors of Encyclopaedia 2012). This mining ended once the Shuar reclaimed the city, and eventually named it "Macas". Since the 1960s, Indigenous political movements have been organised and very prominent in Macas.

As of 2022, Macas has a population of 18,000 people, home to primarily the Shuar and *Macabeos* (Macas residents). The city is an agricultural centre known for producing quality papayas, cacao, cassava, bananas, and coffee. Macas has a small airport which serves those travelling to remote communities in the Amazon. The city recently promoted eco-tourism and cultural activities such as partaking in rituals, jungle trekking in Indigenous communities and white water rafting to attract visitors. One of its main recreational tourist attractions is Rancho Fatima, otherwise known as Los Jaguares Rescue Centre, a non-profit centre which rescues

tropical animals, but is well known for its three jaguars in captivity. This was the primary site for my participant observation activities.

1.4.2. Methods

I conducted in-person and online interviews with four groups of participants: conservationists, farmers, Indigenous (Shuar) community knowledge holders, and volunteers. I selected online participants by emailing NGOs working on jaguar conservation or individuals working on such topics actively which had their email publicly available. I selected participants in the field by advertising my study through flyers and posters, but participants were mainly selected through snowball sampling which naturally occurred as news surrounding my research at Los Jaguares Rescue Centre spread to those visiting and working at the centre. Before conducting interviews with participants and recording their interview, I obtained oral consent. This was a more appropriate form of consent as signing documentation in Ecuador may make participants uncomfortable.[4] Participants were also assigned a code to their interview containing a letter and a number (e.g. Participant 1) for the coding process and given a pseudonym when mentioned in this text. It is worth noting that many of the participants I spoke with were not concerned with concealing their identity/name by partaking in this study; rather, participants were very enthusiastic and passionate to speak about jaguars and conservation.

I conducted 25 semi-structured interviews in person and online over the course of 12 weeks. I conducted 12 semi-structured interviews with conservationists - 7 online interviews via Zoom and 4 interviews in person while conducting fieldwork in Ecuador. The interview guide for conservationists contained 30 questions and focused on themes such as individual experiences with jaguars, the importance of jaguar conservation, human and jaguar relationships,

[4] Signing documents is seen as a legal formality which is often intimidating.

current jaguar conservation strategies, especially given COVID-19 and local populations' involvement in conservation (see Appendix C).

I also conducted 3 semi-structured interviews with farmers living in *La Quinta Cooperativa* 6 km outside of Sangay National Park, approximately a one-hour drive north of Macas. I came to this site prepared with a list of 10 questions, asking farmers about livestock who have been killed, what helps them identify the perpetrator of the attack, how they prevent such attacks and if they believe jaguars should be protected (see Appendix C). I also conducted 4 semi-structured interviews with Shuar knowledge holders and community members living in Macas. This guide contained 10 questions and focused on themes such as relationships between humans and jaguars, spiritual/ cultural importance of jaguars, community perceptions of jaguars and current/ potential community support of jaguar conservation initiatives (see Appendix C). Finally, I conducted 6 semi-structured interviews with Los Jaguares Rescue Centre volunteers. These interviews were brief, but I asked 4 questions focused on their experiences volunteering at the centre, specifically while caring for jaguars, and how their experience contributes to environmental conservation (see Appendix C).

My study draws on information collected during 10 weeks of participant observation in Ecuador. Eight weeks were spent actively volunteering or partaking in activities associated with Los Jaguares Rescue Centre in Macas, Ecuador. During my participant observation I gathered information about the centre's objectives, day-to-day activities, tasks given to volunteers, especially all tasks and caretaking related to the three jaguars at the centre (see Appendix D). I also conducted unstructured interviews which were used to build rapport with individuals and interview those who may be uncomfortable with a more structured interview (Bernerd, 1988). Jot notes and field notes were taken of daily activities to record information, events, and feelings I

experienced while being immersed in the daily life of Macas residents and the role of a "*extranjero*" (foreign) volunteer.

For the first three weeks of my participant observation, I stayed at Los Jaguares Rescue Centre with other foreign volunteers and participated in animal husbandry and cleaning tasks. I stayed there for three weeks, and eventually became ill. This was mainly due to the rustic conditions of the centre and my fragile stomach. As illness impeded my research abilities, I moved to a small casita in the Macas city centre for the remaining duration of my stay and commuted to the rescue centre to participate in morning volunteer tasks for 5 weeks. The rescue centre also gave me the task of developing an environmental/jaguar education program to be used to educate young children visiting the centre and those at elementary schools in the city centre (see Appendix E). Three rescue centre volunteers and I ran the environmental education programme for two days in late September at Escuelita Dolores Veintimilla in Macas for over 200 kindergarten students.

While conducting participant observation in Macas, I submitted a letter to the Ministry of Water and the Environment in Morona-Santiago requesting information on current human-jaguar conflict and conservation. The office provided me with a 9-page report (see Appendix F). My participant observation also included travelling to cities and towns in Ecuador such as Sucua, Cuenca and Quito, as I visited zoos, exhibits and conducted interviews in these locations. Findings from my participant observation provide insight into successes and challenges of rescue centres working on conservation, experiences of caring for jaguars, and the relationships visitors, community members and volunteers have with jaguars.

As many of my participants spoke Spanish, I hired two research assistants to assist with translation during interviews. I have conversational level Spanish, and I can comprehend Spanish

better than I can speak it, which is why translators were necessary to assist with communication and clarify things. One of my translators is a member of the Shuar community and speaks Shuar, Spanish, and English. This was helpful when getting in touch with Shuar knowledge holders and interviewing Shuar participants. I also hired a second translator, an English teacher living in Macas. I hired the second translator not only to provide flexibility if the first translator was not available, but also because I noticed that local politics in ethnicity meant that in some contexts, the Shuar translator's knowledge was not valued. Both translators mainly assisted with interviews conducted in the field.

Interview recordings in Spanish were transcribed by another research assistant. The Spanish transcriptions were also translated into English by a research assistant from Ecuador. Using the help of two research assistants in the transcription process provided a fresh set of eyes and ears to data collected, which ensured that audio and text translations were double checked and completed precisely.

I coded all interview transcripts, fieldnotes and the government document I received from the Macas Ministry of Water and the Environment using NVivo. Before beginning the coding process on this program, I read through the written material and shortlisted themes and codes to begin coding with. They include caring for jaguars, jaguar conservation strategies, fear of jaguars, human-jaguar conflict, spiritual and cultural meaning of the jaguar, paw prints, and camera traps. I began coding on NVivo by dividing the interview transcripts into groups based on participant classification, then I coded the government document and fieldnotes. Overall, I created 48 codes (see Appendix G, H). With this background and methodology in mind, I now turn to presenting six jaguars. Each jaguar highlights multispecies relationships, and the

implications jaguar conservation strategies have on these relationships. In the next chapter, I explain the ecological role of the jaguar as an apex predator.

CHAPTER 2: THE APEX PREDATOR

According to ecologists and conservationists, jaguars in the wild eat on average 1.2-1.5 kg per day and sometimes up to 22kg if they haven't eaten for several days (San Diego Zoo Wildlife Alliance Library 2022; Jirik 2023). Jaguars in their endemic habitat prey on species such as peccaries, agoutis, fish, monkeys, birds, tortoises, iguanas, armadillos, and capybaras. Jaguars kill their prey by piercing the animal's skull or snapping its vertebrae. With a bite force of 200 pounds per square inch, the jaguar has the strongest jaw of any feline in the animal kingdom (WWF 2023). I can still clearly hear the crack and snap of Nantar, the mother jaguar at Los Jaguares Rescue Centre, biting into the skull of a cow head she was fed. In ecological terms, jaguars are referred to as an "apex predator" because they regulate the equilibrium and functionality of ecosystems, ecological networks and assemblages. Despite the jaguar's position, activities in an Amazonian Anthropocene have threatened the jaguar's habitat and livelihoods prompting NGOs, governments, conservationists and some Shuar to advocate for jaguar conservation. Human exceptionalism, Foucault's governmentality, and territorialization are relevant to discussions of the jaguar's role in food chains and ecological jaguar conservation efforts.

2.1. Governmentality and Territorialization in an Amazonian Anthropocene

Conservation initiatives, priorities, and practices are often shaped by the perceptions and interests of the state. Carpenter's (2020) work, *Power in Conservation: Environmental Anthropology Beyond Political Ecology* illustrates how four of Foucault's concepts of power are influential in the anthropology of conservation. The *power of discourses* includes the conservation narrative (see Chapter 1) (Carpenter 2020). Secondly, *the triangle* - governmentality, discipline and sovereignty are crucial to models of state-led conservation

(Carpenter 2020). Governmentality is simply referred to as the "code of conduct" which is used to govern subjects. Sovereignty is the ability to decide life or death, influenced by legal power and exerted over citizens in a territory. Discipline refers to how a population is controlled or corrected (Carpenter 2020). The third concept of power, *subject formation*, occurs when local populations are transformed into conservationists (Carpenter 2020). Lastly, *neoliberal governmentality* highlights how conservation is shaped by economic gain and capitalist markets. Foucault's concepts of power also inspired Agrawal's (2005) concept of "environmentality" which describes how power and governance influences subjects' concerns about the environment. These components of power in conservation are apparent in jaguar and environmental conservation initiatives in Ecuador.

Territorialization is intertwined with Foucault's concepts of power. Territorialization refers to asserting power and control over a geographic area (Vandergeest and Peluso 1995). This control may be over people's movement, property, activities and the natural resources within the area (Vandergeest and Peluso 1995). In the context of environmental conservation, the establishment of protected areas - areas which receive protection from the state and NGOs due to their cultural and ecological value - have positive and negative consequences on state-society relationships (Bassett and Gautier 2014). There are few studies that argue territorializing practices in conservation are beneficial, stating that they assist in achieving international climate goals, raising awareness, and environmental research (Caron et al. 2017). Several studies note the disadvantages of protected areas as they may be poorly controlled and regulated by the state (Greeley 2020), representative of the state asserting hegemonic power (Bassett and Gautier 2014; García and Mulrennan 2020; Greeley 2020), serve capitalist interests (Bassett and Gautier 2014; Bluwstein 2017; Corson 2011; Greeley 2020) and may marginalise communities' access to land

and natural resources (Bassett and Gautier 2014; García and Mulrennan 2020; Greeley 2020; Hein et al. 2020). Peluso (1993) explains how state enforcement of protected areas may lead to exercising sovereignty in defence of the ecologically valuable territory, creating "legitimate" violence against local communities. In the context of my study, territorialization in conservation is supported by conservationists, ecologists, NGOs and some Shuar communities.

2.2. Ecosystem Functionality

The Shuar recognize the role of jaguars, as a powerful apex predator in a natural environment, through their cosmological beliefs (see Chapter 3). According to existing literature and my findings during fieldwork, jaguars are referred to as *tigre*, *yawa*,[5] or "Kings of the jungle". Several of my informants, especially ecologists and conservationists, have categorised the jaguar as an apex predator. Though conservationists also described jaguars as landscape and umbrella species. During our interview in October, the Director of Wildlife Conservation Society (WCS) Ecuador referred to jaguars as "Landscape Species" which are, "species that have large habitat requirements that are in danger, and they also have cultural or economic importance since they have large habitat requirements." Jaguars are also umbrella species because, according to the Director of WCS, "If you protect those species, then you protect a lot of smaller species that share the same habitats."

Jaguars' roles as apex predators, landscape species, and umbrella species also means they are an important indicator of forest health, what some conservationists described as "ecosystem functionality." Jaguars regulate populations of herbivores at a level which allows the forest and plants to recover. One of the conservationists I interviewed said, "A balanced population of

[5] In Ecuador it is common for communities to refer to the *Panthera Onca* species as a type of "tigre". This means "Tiger" in English and is used to refer to felines. Similarly, in Shuar, the *Panthera Onca* is one type of "yawa", also referring to felines. My research assistants and I always described what type of *tigre* or *yawa* we were referring to before starting interviews with farmers and the Shuar.

plants is crucial for the survival not only of jaguars, but of the entire food chain and entire biodiversity." The co-founder of JAPU, an environmental conservation organisation on the coast of Ecuador said that the absence of the apex predator from an ecosystem, "leads to a complete breakdown… Scientifically, this is a problem." Several conservationists emphasised that if the jaguar disappears forest dynamics will change.

Similarly, the Shuar recognize the jaguar as a powerful force which maintains equilibrium in nature. One Shuar individual I interviewed explained that jaguars are, "Kings who maintain order in nature… we see them as powerful souls who live in the jungle. They are part of our natural environment." These examples illustrate how conservationists and the Shuar recognize the role of the jaguar in ecosystems, though influenced by different knowledge systems - one which is scientific, and the other which is informed by cosmology. The position humans assign to the jaguar in ecosystems illustrates human exceptionalism as humans are separated from ecological non-human multispecies networks and assemblages. If the jaguar upholds ecosystem functionality and equilibrium, where do humans fit in this "functional" ecosystem? I explore this question in the following sections.

2.3. Anthropogenic Destruction to Jaguar Ecosystems

During my fieldwork, it was not uncommon to see large trucks transporting timber. On the outer edge of Macas' downtown area land is being cleared for construction and agriculture. Land clearings are also visible in the horizon when looking at the Kutukú mountain range surrounding the city. While driving from Macas to Quito with the family that hosted me during my fieldwork, we drove behind two large timber trucks which turned onto the road just outside of Macas. The daughter who was driving pointed at the tree trunks, looked quite disappointed

and shook her head. I did too. I could not help but think about the receding forest line or unnatural clearing that must be left in the absence of those large trees.

In this Amazonian Anthropocene in Ecuador, jaguars are faced with another imminent threat. Historically, extractive industries have had a presence in Ecuador's eastern Amazonia. Gold mining has occurred in the eastern Amazon for hundreds of years and played a role in the formation of Macas during the arrival of Europeans to the Amazon (see Chapter 1). Currently, illegal gold mining is expanding in Ecuador's Amazonia due to corruption, criminal activity and foreign involvement, causing ecological destruction, contaminating water reservoirs and infringing on Indigenous territory (Gabay 2022; Mainville 2018). Oil drilling also has a complicated history in Ecuador's Amazonia as well. In fact, Shell, a city northeast of Macas, Ecuador was named after the Royal Dutch Shell Corporation, an oil and gas company, due to its presence in the area. In the early 20th century, the company left Shell due to years of territory-related conflict with the Waorani (Reilly 2020).

Adrian, an Ecuadorian ecologist I spoke to who was formerly affiliated with Tiputini Biodiversity Station (TBS), explained that Yasuní National Park in Ecuador's northeastern Amazon, a key habitat for Ecuador's jaguar populations, is located above valuable oil reserves. He said, "The craziest thing is that it's a national park, and it's supposed to be protected. But whatever is underground, if it's a national interest, the government can take it. And that's what happens with oil. The largest oil reserves are directly below Yasuní. And they've been exploiting that for 40 years." In 2019, the centre of Yasuní National Park was opened to oil drillers (Brown 2019). Though this activity was previously forbidden, the Ecuadorian government created an "Intangible zone" buffer area in the park which allows oil platforms to be constructed. In this case, the oil drilling infringes on the land of uncontacted Indigenous tribes (Brown 2019). It also

leads to the development of roads causing destruction of forests, ecosystem fragmentation and increased human populations, as people tend to live near roads. This shows how neoliberal governmentality and territorialization in conservation is complicated, as although the state has protected ecosystems, the regulations are amended for the extraction of economically valuable resources.

These extractive industries create "blasted landscapes" which according to Tsing (2014) refers to degraded landscapes that are a result of human activities and destruction. The Director of WCS Ecuador described jaguars "crossing agricultural fields, illegal mining areas, illegal logging areas, roads, and rivers. They are very vulnerable to being killed when they are doing these large movements." The presence of extractive industries in Ecuador's Amazon and the "blasted landscapes" are evidence of an exploitative multispecies relationship between humans (business and governments), and wildlife. This is a result of government sovereignty and power over the natural environment and protected areas.

Conservationists believe Indigenous and local communities' practices, such as hunting, fishing, and logging, threaten ecosystem functionality, especially prey availability for jaguars. Hunting is important to the livelihoods of forest communities. One Shuar informant said, "I consider that the jungle is our market, we depend on the rivers, on nature to extract food and survive." One Shuar individual explained how hunting is part of Shuar identity, "The more they hunt, the stronger they feel." Both Shuar and conservationists explained that Indigenous communities often live in poverty, making hunting and gathering a necessity.[6]

The importance of hunting indicates how the multispecies relationship between the Shuar and Amazonian wildlife is one based on sustenance and identity but not intentionally

[6] It is worth noting the importance of foods in culture identity, such as that of the Shuar (e.g.: see Chango-Cañaveral et al., 2019). A future project could expand on this and engage with this scholarship.

exploitation. Declining ecosystem functionality due to activities in an Amazonian Anthropocene result in prey bases which are more vulnerable to over-hunting. In this regard, conservationists' knowledge of the rainforest may help communities sustainably use their forest resources. Adrian, an Ecuadorian ecologist, explained this knowledge in relation to a monkey, "So for them [local and Indigenous communities] to kill a monkey is just kill a monkey, if you tell them, "if you killed his monkey, and it's a female, and if you kill four females in the group, you're basically killing them off, because they won't be able to reproduce", those sorts of things they don't know." He also said, "They don't think that the more animals you kill, the sooner the animals are going to disappear." Overall, the depletion of wild game for forest communities to hunt has resulted in a "tragedy of the commons". This occurs when access to natural resources is not regulated, eventually leading them to be depleted (Hardin 2019). However, did extractive industries and Global North entities ultimately cause this tragedy? Do local and Indigenous communities bear the consequences of a depleted commons? Are Indigenous and local communities unfairly blamed for threatening jaguar populations due to a disappearing commons? This will be explored in the following sections.

2.4. Apex Predator in the Anthropocene

Conservationists use the notion of ecosystem functionality as a powerful discourse or conservation narrative to protect the jaguar and other species. When I asked Ecuadorian and international ecologists and conservationists why people should prioritise jaguar conservation, they emphasised that functionality of ecosystems affects human livelihoods. Essentially, humans should prioritise conservation of jaguars, if not for the longevity of the species, but to benefit and protect non-human worlds and ecological chains that they also rely on. The co-founder of JAPU, an Ecuadorian organization that researches species populations, habitats and ecosystem quality

on Ecuador's coast said, "We depend on the healthy ecosystems for several ecosystem services that go beyond clean water or clean air, we have to protect ecological functions like pollination and seed dispersal and demographic regulation that jaguars and other carnivores provide." These concerns also affect those living in distant proximity to jaguar habitats. "If we want restoration of ecosystems, if we want to maintain food security and medical systems, we have to maintain all of the branches of the whole food web and that implies conserving the jaguar", said the co-founder of JAPU.

Jaguars maintain the integrity of vital ecosystems, which are important to overall global water cycles, carbon storage, climate, and supply of resources. One of my informants said, "if we see them (jaguars), we can say that the ecosystems are at least half or partially functional. When we have an ecosystem that is functional, we can improve our quality of life." This jaguar conservation narrative incorporates human exceptionalism and Foucault's neoliberal governmentality. The interdependent ecological relationships which include the jaguar are important to protect because they sustain human life and wealth.

2.5. Charismatic Landscapes and Prioritised Jaguar Conservation Areas

Ecosystems along the coast of Ecuador have been particularly vulnerable to deforestation. One of my informants working at Proyecto Sacha, an NGO that rescues animals on the coast of Ecuador, explained that there has been a devastating amount of deforestation due to urban sprawl and sugarcane-ethanol production. JAPU studies ecosystems of apex predators such as pumas and jaguars, assessing prey availability. JAPU has been conducting research to find evidence of jaguars on the coast of Ecuador, as they have reportedly become extinct in this area due to drastic landscape changes.

JAPU also explains the challenges associated with their research of jaguar ecosystems and for potential jaguars on the coast. JAPU explains that unlike where they work along Ecuador's coast, Amazonia has a larger jaguar population, and most government aid and funding is allocated to projects based in the Amazon. The JAPU co-founder claims that because the government and institutions do not understand ecosystem functionality, they have not prioritised saving jaguars and environmental conservation of coastal areas. This illustrates two components of Foucault's concept of "the triangle", as the agents of governmentality, Ecuadorian government, and funding institutions, exert sovereign power by determining which jaguar populations are more valuable and important to protect (Carpenter 2020). Jaguar conservation in Amazonia could also receive more political and economic support due to its charismatic qualities. Jaguars are a symbolic species of Amazonia (see Chapter 7) and the public often find the Amazon beautiful and enticing as a site for ecotourism and an important landscape in the context of climate activism, whereas the coast of Ecuador surrounding the city of Guayaquil is known for being more populated and having beautiful beaches which attract tourism.

Conservationists also suggest that human efforts to restore nature and ecosystem functionality can also conserve jaguars by saving their important habitats. El Doc, the head of Los Jaguares Rescue Centre, has been working on a conservation project which aims to restore an important biological corridor from Sangay National Park to Kutukú-Shaimi Reserve in Morona-Santiago province (See Appendix A). El Doc, originally from Loja, a city in Southern Ecuador, is a veterinarian who started Los Jaguares Rescue Centre in 2014 by acquiring Amazonian animals who needed care. El Doc has years of experience caring for Amazonian animals and trekking through the jungle. Some even refer to him as an Ecuadorian "Indiana Jones" due to his sense of adventure.

During an interview with El Doc, he explained the importance of creating this biological corridor between Sangay National Park and Kutukú-Shaimi Reserve. He said, “we want to integrate this bio-corridor so that species can move and there is a flow that allows gene renewal. With all the hunting, genetic diversity has also been lost, but if this corridor is created, that flow that has always existed for thousands or millions of years will be resumed.” In fact, el Doc has begun working with the Andes Amazon Conservancy, where he is helping to reforest the area with 15 varieties of fruit trees. According to el Doc, “we will be improving the landscape, we will be giving another value, we will be giving food to the natives, the birds, the mammals and we will be creating spaces to make the bio-corridor stronger.” This biological corridor project is an example of how the power of NGOs and human intervention can create a more responsible Amazonian Anthropocene.

2.6. Territorialization for Ecosystem Functionality

Several of my informants conveyed that territorialization of valuable ecosystems, such as Amazonian rainforests, could conserve jaguar populations. A Shuar elder explained to me that gaining rights to ancestral lands in the Amazon, such as creating reserves, improves their own livelihoods and protects the environment. He mentioned that members of the community were going to trek across an area of the Kutukú mountain range in Morona Santiago to stake out their territory, which is also prime jaguar habitat. He said it would be a tough journey through thick and untouched forest. According to the Shuar, territory managed by Indigenous people with knowledge of the forest also protect the jungle. This has also been stated in many studies assessing rates of deforestation and environmental degradation on Indigenous territory (Baragwanath and Bayi 2020; Hayes and Murtinho 2008; Sze et al. 2022). This is mainly because these communities, according to several Shuar informants I interviewed, prioritise

sustainable use of natural resources, unlike colonial and Global North industries. A Shuar informant from the Elder's community said, "The jungle is very large but without a doubt we would help to protect the jaguar's habitat from the big oil companies and settlers."

In response to the breakdown of ecosystems in the Anthropocene, conservationists, NGOs, and governments have emphasised the need for "fortress conservation" models, which often involve the creation of protected areas. Fortress conservation separates ecosystems from human disturbance (Brockington 2002). This model has been criticized for criminalizing and marginalizing local people who use natural resources in protected areas, sometimes even creating "conservation refugees" (Dartmouth SESMAD 2023; Dowie 2011).

Fortress conservation is evident in Merazonia's approach to conservation. The Director of Merazonia, a European who created the organization out of their passion for rescuing Amazonian wildlife said, "the best thing we do is the part where we do absolutely nothing… to see an increase of rarity and quality and quantity of wildlife in reserve is, I think, probably the biggest achievement. And we have to do absolutely nothing for that." Merazonia has a 250-hectare reserve in Ecuador's north-eastern Amazon in the town of Mera, and the organisation is only active on 10% of the reserve. Camera traps at Merazonia have recently captured an image of a black jaguar, a *Panthera onca* with a rare skin colouration. The Director mainly attributes this sighting to their untouched reserve[7]:

> The longer we do nothing with the majority of the reserve, the healthier it seems to get. Like with the return of certain animals starting with smaller mammals or birds, resulting in the appearance of black jaguar. In my opinion… looking at our camera footage, as well as personal sightings, we can definitely establish that the variety and quantity of wildlife is higher than it was in 2005.

[7] Merazonia monitors their reserves with camera traps. However, the reserve is not fenced off and there are no rangers/ guards monitoring the area due to lack of funds and resources. It is illegal to hunt on the reserve but they cannot prevent it from happening entirely.

Protected areas may protect the jaguar and ecosystems, but communities that live within and close to the boundaries are often directly affected. A Shuar conservationist I interviewed supported the idea of limiting hunting practices in the protected area his community lives in, which is in the vicinity of el Doc's restoration project. He said:

> Nowadays, it is not known how many jaguars exist within the Kutukú-Shaimi Protected Forest, which is a reserve of the Ecuadorian State. This is a protected area, and we are within that area. We know that there are not many jaguars left, that it is an endangered species. That is why we have told our community that they should not hunt animals that they are not going to eat.

Though he is helping the community adopt more sustainable practices, it is not to say that he doesn't recognize the restrictions on their territory and actions. Foucault's concept of governmentality is relevant to this example of territorialization, as while explaining the protected area he said, "the government is the one who tells us what we can and cannot do." In a sense, the government and Shuar leaders are disciplining community members to follow these regulations set by NGOs and the state, upholding the ecological conservation narrative. This results in subject formation of the Shuar community.

Conservationists have also advocated for "zoning" of ecologically important areas to reduce local hunting, fishing, and logging activities. The lead of community relations at WCS-Ecuador explained that zoning in communities is introduced by conservation organisations and that they work with neighbouring communities to agree on hunting zones. Conservationists have stated that zoning is necessary to reduce the amount of forest resources being used by local communities such as the Shuar, as this threatens prey availability for the jaguar. Conservationists recommend zoning as a compromise, recognizing that it is unreasonable to expect communities in the forest not to hunt, as they have done so for generations. Zoning in conservation is a type of territorialization that is accompanied by a disciplinary power, such as fines for disobeying

hunting zones which regulates the activities of Indigenous peoples and local communities. This form of territorialization serves the interests of conservationists, NGOs and ecosystem functionality. However, the subject formation of local communities into conservationists affects their livelihoods.

Some of the Shuar members I interviewed stated that conservation is important and necessary despite the restrictions on their activities. One Shuar individual I interviewed working at the environmental ministry in Don Bosco, a neighbourhood in Macas, Ecuador, said, "In general, there is no knowledge about preservation of the environment or about ecological conservation (amongst the Shuar). The Shuar community is not aware of this because from the beginning they lived from hunting and gathering." I also interviewed a Shuar conservationist who began a conservation initiative "Proyecto Selva Vida" in his community. He explained, "If we cut down and do not protect the forest, we are exterminating the Shuar people. This is why conservation is so important…Our mission, my mission, is to impart this knowledge to the people and communities settled in Makuma in the trans-Kutukú mountain range, which is the area where we live." These examples illustrate how the Shuar conservationist and government employee prioritise environmental conservation due to their cultural beliefs but also the ecological conservation narrative. Subject formation of community members into conservationists is necessary to protect the longevity of Shuar livelihoods and identity, though it has positive and negative implications.

Consideration of Foucault's concepts of power, territorialization and human exceptionalism in an Amazonian Anthropocene in Ecuador provide insight into the causes of environmental destruction and the implications of jaguar conservation on Global North

communities and local communities such as the Shuar. Affect experienced between jaguars and social actors will be examined in the following chapter.

CHAPTER 3: THE AFFECTIVE JAGUAR

The Shuar, conservationists, and volunteers I met had different affective encounters with the jaguar. Affect may be understood as, "unconscious responses to stimuli and perceptions that a subject may or may not perceive" (Rutherford 2016, 286). Affect is different from emotion as it describes intensities which activate and deactivate embodied experiences (Massumi 1995; Jameson, Fish, and Massumi 2002). The concept encourages anthropologists "to think about the ways that passions pass between bodies." (Rutherford 2016, 287) According to White (2017) affect theories emerged from an "epistemological gap between how bodies feel and how subjects make sense of how they feel." (p.177) Affect is rooted in social interactions (Durkheim and Swain 2008; Skoggard and Waterston 2015). Ethnographers have found it challenging to theorise about what is sensed and felt, this has prompted Skoggard and Waterston (2015) to propose an "evocative anthropology" which considers feelings and affect in descriptions and explanations.

One of the key contributions of multispecies ethnography is its consideration of how humans are "affected" by animals and vice versa, how they feel impacted by each other (Bommel 2023; Despret 2013; Lestel, Brunois, and Gaunet 2006). Myers' (2006; 2012) work suggests that life science researchers produce affect through embodied animations of molecular structures. Similarly, Despret (2013) describes how affect is experienced when scientists engage with the animals they may observe in the field. Despret (2013) refers to this as an "affected perspective" which considers, "how the scientist risks being touched/affected by what matters for the animal he/she observes." (p. 57) Multispecies works have also described conservationist and volunteers' affective experiences with non-humans (see below). My work also contributes to the growing body of multispecies ethnography literature focused on affect.

Rituals performed by Indigenous peoples in Amazonia are often informed by their cosmological beliefs or perspectivism which is deeply rooted in ecology (de Castro 1998a; Reichel-Dolmatoff 1976). Some examples of Amazonian rituals discussed in literature include mortuary rituals (Conklin 1995), rituals against enemies (Fausto 2012), and rituals concerning medicinal and hallucinogenic plants such as ayahuasca (Reichel-Dolmatoff 1976; Rios and Rumrrill 2008; Schultes and Raffauf 1992; Naranjo 1979). Rituals often involve a state of liminality, which is a state of transition between worlds or the process of becoming. Affect may be recognized during the "liminal zone" of rituals (Gennep 2019; Letiche, Letiche, and Moriceau 2022; Turner 2010). While conducting fieldwork, I learned about Shuar cosmological beliefs and rituals which implicated the jaguar and involved affective encounters.

3.1. Shuar Rituals and Arutam

On Saturday August 6th, 2022, the volunteer coordinator of Los Jaguares Rescue Centre took two volunteers and me from France to *Kintia Panki*[8], a Shuar community in Sucúa. Kintia Pankia in the Shuar language means "mist boa", an animal central and important in Shuar rituals and cosmology. Once the four of us took the bus from Macas to Sucúa, a taxi drove us 20 minutes on a dirt road to a bamboo gate, where there were bamboo houses with thatched roofs visible behind it.[9] In the surrounding area you could see mountains covered in thick Amazon jungle. Once we approached the community's entrance, we paid the $5 USD entrance fee to the Shuar community leader. Out of town visitors and tourists often visit this community to learn about the Shuar and their cultural practices. Engaging in Indigenous cultural practices in Amazonia is a popular form of ecotourism in Ecuador (Davidov 2013). The Shuar community

[8] https://www.youtube.com/watch?v=AUL6iDXtO-4

[9] These houses are described in Kroeger, Axel. "Housing and Health in the Process of Cultural Adaptation: A Case Study among Jungle and Highland Indians from Ecuador." Zeitschrift Für Ethnologie 104, no. 1 (1979): 79–104.

members I met here were very welcoming and happy to teach us about their cultural practices. They told us that this is a way of educating and promoting the longevity of the Shuar tradition. It is also a way to generate cash income for their community.

Near the community entrance, artisanal necklaces and bracelets were being sold with Shuar fine beaded designs, while other items consisted of jewellery and accessories made from seeds, animal skin and teeth. Homemade shampoos, soaps and conditioners were sold in plastic water bottles and jugs which contained a mixture of medicinal plants and spices. There was also an area where people could have lunch which consisted of tilapia wrapped in a leaf and cooked over a grill. Once we walked through the crafts and homemade products for sale, we sat under the large traditional house. A woman painted a red symbol on the cheeks of the two volunteers and I, different for both men and women which means being in harmony. We were then welcomed by the community members with a traditional Shuar greeting, in which a man stepped back and forth, striking the air with a spear while chanting in the Shuar language.

Afterwards, the two volunteers and I followed our guide to the waterfall, *Cascadas Kintia Panki* where we would participate in a waterfall ritual. The waterfall was at the end of a rugged and rocky path. It was very high and had a modest flow of water flowing from it, enough to create a river. The ritual began with the Shuar man asking the waterfall for permission for us to approach. As explained in existing literature, the Shuar and Achuar believe *arutam,* resides in waterfalls (Meiser and Dürr 2014). During waterfall rituals, the Shuar asks for an *arutam* spirit to reveal themselves. Arutam is the most powerful spirit or lifeforce, which can transform into different beings. It is known to protect people throughout their life (Howe 2003). Both men and women can obtain *arutam*, but it is not the only soul that the Shuar seek (Perkins and Chumpi 2001; Rubenstein 2012).

After the three of us approached the waterfall, our guide poured a dark green liquid, pulp from a tobacco plant, into our cupped hands. We were then told to snuff this up our nose to cleanse ourselves. This causes an uncomfortable burning sensation in the nostrils. Ingesting tobacco in this way alters one's state of consciousness temporarily. After this, the Shuar individual leading us through the ritual gathered us around the base of the waterfall where he doused us with herbal mixtures and chanted Shuar songs. During this, I could feel the spray of mist from the waterfall. It was a peaceful and refreshing experience.

My experience learning about elements of Shuar culture, tradition and participating in a waterfall ritual at Kintia Panki illustrate several multispecies assemblages. For years, the Shuar have hunted animals and harvested plants for gastronomic, structural, medicinal and artisanal uses as a mode of subsistence but also more recently to create consumer goods. Non-humans, namely plants, animals and elements of the landscape have spiritual meaning and agency in Shuar cosmology. This aligns with Amazonian perspectivism- having one nature with several different cultures (de Castro 1998).

Though *arutam* resides at waterfalls, *arutam* is evident in powerful and symbolic animals such as jaguars. According to existing scholarship, people who possess *arutam* may shape-shift into jaguars or anacondas to overcome obstacles (Perkins & Chumpi 2001). The Shuar elder I interviewed explained that, "The jaguar is an animal that has reigned in the Amazon jungle. For the Shuar, the jaguar has meaning both physically and spiritually. In the spiritual field, ancestrally the jaguar is highly respected by the Shuar because it represents the power of light, of life, which at the same time is the father *Arutam*." One of the Shuar individuals I interviewed, working on Eco Proyecto Selva Vida, a conservation project in his Shuar community, said "If a man goes to the waterfall and suddenly a jaguar appears in front of him, it gives him all that

strength. That is what the jaguar represents for us, power and strength." The presence of a cosmological jaguar in front of the waterfall affects the individual. In this experience between the Shuar (human) and a salient landscape (the waterfall), a non-human being (a jaguar), and the spirit (*arutam*) there is a transfer of intense power and strength between bodies and entities. As the affective experienced in Shuar cosmovisions has been associated with the jaguar, this is what informs the Shuar's perception of the jaguar's reign and power over the jungle.

The Shuar elder I interviewed also said, "*Arutam*, the father of life, often transforms himself into a jaguar in front of humans to transmit his power to them through visions." The visionary experience plays a central role in Shuar rituals, and this often occurs in an altered state of consciousness induced by hallucinogenic plants. One of my informants, a member of the Buena Esperanza Shuar community explained that, "Through ayahuasca, malicagua, tobacco… we can obtain energy from nature." Hallucinogenic plants also possess the power and spirit of different non-human beings. For example, malicagua (*Datura Arborea*) is said to have the power of the anaconda and the *arutam* of the jaguar (Perkins & Chumpi 2001). The altered state of consciousness effect of inhaling tobacco is extremely brief in comparison to the strong hallucinogenic impact of ayahuasca for example, which may affect an individual for hours once ingested. During ayahuasca visions, people come into contact with jaguars. When Shuar men drink ayahuasca, often at the sacred waterfall, they may see the spirit of a *tigre* (jaguar) and transform into these animals (Howe 2003; Perkins & Chumpi 2001). The informant I interviewed at Buena Esperanza described ayahuasca visions in which he saw jaguars:

> When I was younger, sixteen years old, I had a problem at school. So I left school and went to Numpai to stay with my grandfather. My grandfather decided to give me ayahuasca. We prepared it together, we cooked and when it was between six in the afternoon and seven at night I drank the ayahuasca. Then I started having visions of jaguars that wanted to attack me. I took a stick to defend myself and when the jaguars saw that I was going to hit them with the stick, they turned

> around and like puppies, they put their tails between their legs and ran away. Then more jaguars came back to attack me and I defended myself.

In ayahuasca visions, an individual fighting off the jaguar is also symbolic of overcoming challenges and becoming spiritually enlightened with *arutam*. These visionary experiences described by my informants may be characterised as liminal states, between the physical and spiritual world. In these liminal phases, affect – an intensity – is experienced in an encounter with the jaguar which allows the human to come in contact with *arutam.* The jaguar is implicated in an affective encounter as it allows the individual in this liminal phase, to respond to stimuli and perceptions related to personal struggles and crisis.

Several of my informants have explained that the spiritual importance of the jaguar in visions, beliefs and rituals is why the Shuar respect the jaguar. The Shuar elder I interviewed said, "Every Shuar or human being who meets the Jaguar in a vision will receive the power of *Arutam* and will become immortal and powerful and will only die of old age…It is for this reason that the Shuar respect the jaguar." Respect for the jaguar is rooted in the affective dimension of the Shuar's encounters with jaguars, as the jaguar is part of a landscape which is intrinsically tied to their cosmovision, perspectivism and *arutam*.

The Shuar elder I interviewed also explained that the Shuar respect the jaguar due to its role in a ritual practice, no longer performed today, involving *Tzantza*, meaning to reduce one's head or decapitate. The Elder said:

> On one occasion, the warriors killed a jaguar and cut off its head to make a *Tzantza*, but this unleashed the jaguar's wrath and finished off those humans. From that moment, the Shuar did not cut off the head of a jaguar again and decided to look for another animal to make the *tzantza,* they began to use the head of the lazy monkey. They did this for ceremonies and also not to kill other people. So, in that sense the jaguar has gained the respect of the Shuar.

His statement illustrates how the Shuar's respect of the jaguar is due to fear of its power and strength, and how these qualities make this feline valued more than other species. Additionally, the Shuar harnesses the strength and power of the jaguar through wearing amulets and necklaces that contain jaguar body parts such as teeth and skin. While at *Kintia Panki*, I noticed several items for sale containing animal parts. Some items had jaguar teeth mentioned in their description. While interviewing the Shuar elder, I noticed he was wearing a necklace with two large teeth on both sides of a long, crystal mineral. When I asked about the meaning of the necklace, he explained that the jaguar's fangs empower him. The spiritual beliefs and affective underpinnings of wearing jaguar teeth also illustrate the importance of protecting this feline.

Protecting the jaguar also protects the transfer of energy and spirits in the Shuar's multispecies ontological plane. For example, the man who explained taking ayahuasca at the age of 16 said, "Through ayahuasca, my grandfather taught me how we can obtain energy from animals. That is why Shuar cannot touch animals, jaguars, or kill them." The Shuar elder also said "I can communicate with these animals when I take ayahuasca, when I am in spiritual meditation in the jungle. Therefore, if I had the means and resources to protect the jaguar, I would do it." These examples of affect the Shuar experience in relation to jaguars in the context of rituals and visions characterise the Shuar's multispecies relationship with jaguars as one that is based on spiritual reverence and fear.

3.2. Conservationists, Volunteers and Affective Encounters

Multispecies scholarship has drawn on affect to explain relationships between conservationists, volunteers, and animals. For example, Brondo (2018) argues that Utilia, a picturesque island off the coast of Honduras has an "affect economy", as conservation volunteers travel to the island for experiences with exotic wildlife. Candea (2010) also describes the

Kalahari Meerkat Project as being part of an "affective economy". Similarly, Parreñas (2012) examines how British tourists pay thousands of dollars to travel to Malaysian Borneo and perform custodial labour for orangutans at a rehabilitation centre which also produces affect between volunteers and orangutans. For conservationists and volunteers, the spiritual construction of the jaguar and affect is evident in comments made by those individuals I met while conducting fieldwork. The conservationists and volunteers I interviewed described their sighting of a jaguar as being an emotional experience. Adrian, an Ecuadorian ecologist, has seen jaguars 31 times in the wild. Other conservationists I interviewed told me this individual has seen jaguars in the wild more than any other person they knew. When I asked Adrian what it was like to see a jaguar for the first time in the wild, he said, "It was so powerful. I was like, useless…I was like 'Whaaat'. Their sight is just something that is hypnotising...Just wow. And that feeling after you see the first jaguar, it is the same feeling every time you see one. It never changes…it's the same excitement." He then went on to say, "Jaguars are magnificent creatures. Like any other creature in the world, they deserve to live."

When I asked a representative of the NGO Fundación Condor Andino about his reaction and impression when seeing a jaguar in the wild, he also used similar phrases to describe his experience. He said:

> In Ecuador it is not easy to find these animals so one gets quite excited, one feels the joy and happiness of being able to see something that very few have the opportunity to see, to see an animal that has magnificent power and a fantastic figure. One experiences various sensations, first it is surprise, then excitement, and later fear for not knowing how to control the situation. I have had the opportunity to see them in various circumstances, while tracking other species or while doing other jobs. But I have always felt excitement, affection and above all the need to protect them.

These comments from the two conservationists describe the powerful impression a jaguar has when one is in its presence. Jaguars as "hypnotising" beings, causing various sensations in

humans such as amazement, fear and confusion are not arising out of scientific rationale such as physical traits of a species. When Adrian described the glance of the jaguar, it illustrates an affective encounter as there is a transfer of power and energy between the human and feline. The affect experienced by these conservationists grounds their beliefs in a spiritual way, that the jaguar is a magnificent creature. As both conservationists indicate, these affective encounters inform the prerogative to protect their lives.

Similarly, volunteers from Los Jaguares Rescue Centre who I interviewed also experienced an element of affect when seeing the three resident jaguars at the centre - Wagyus, Yoana, and Nantar (see Appendix B). One volunteer, who spent two months at the centre working on his animal care thesis about jaguar behaviours in captivity, described the reason behind his fascination with this feline:

> I guess that the reason behind my fascination about jaguars is that I always think how in the hell is it possible that these animals, like millions of years ago, have developed to be exactly like this. And I have like, in front of me, a sort of perfect machine with a lot of spots and everything, which is absolutely beautiful externally just but also super good looking. And so, this is why I found them, I find them fascinating.

This volunteer draws on his knowledge of evolution and functionality of species in order to interpret and rationalise the feelings of fascination with jaguars. Even then, the beauty of the animal is mystifying and similar to the conservationists above, it also illustrates affect.

Volunteers with less scientific background and knowledge also thought the jaguar left a noticeable impression. One volunteer told me that, “The first time I saw a jaguar I was really, really amazed. I really believe this is the more wild animal that I can see here. In general, it gives you a strong impression, but uhh it also gives a bit fear. You can see in their eyes that they are wild animals.” This volunteer’s visceral experience is grounded in the concept of wild.

According to the volunteer, this wild element of the jaguar's presence elicits strength, mystery and beauty.

The affective experienced by conservationists and volunteers may differ from Shuar encounters in that they don't involve the same cosmology and deities, however it is clear they align in discussions of the beauty, power and strength of the jaguar. Affect and jaguars are present in liminal rites and states in Shuar spirituality, whereas the physical sightings volunteers and conservationists have with jaguars elicits affect informed by the mystic nature of the feline.

3.3. Conservationists and Shuar Spirituality

Affective encounters with jaguars have the potential to be combined in conservation spaces and projects. The conservationists I interviewed recognize that jaguars have spiritual and cultural importance to several Indigenous groups across Latin America, dating back to Pre-Colombian times. The conservationists I interviewed working in the vicinity of Morona Santiago province were familiar with Shuar beliefs and respect for the jaguar. In fact, el Doc at Los Jaguares Rescue Centre, chose Shuar names for two of the jaguars held in captivity at the centre. El Doc said, "I gave these jaguars names related to nature. Nantar is a Shuar name that means stone, it is a lucky stone, it is a precious stone that when placed in the garden brings great luck. So Nantar means lucky stone. Amaru is instead a native term that means "strong, brave, and fearless." These names reflect Shuar perspectivism.

Though these names represent a merger of conservationist and Shuar perspectives and spirituality, conservationists have also made general claims that Indigenous peoples' spiritual relationship with the jaguar no longer exists. After describing concerns of Indigenous peoples overhunting in the jungle, one of my Ecuadorian conservationist informants said, "Here, they say that the shamans when they die become jaguars, stuff like that. But that's something that has

been lost, obviously…So now, jaguars have lost more than half of their home range." In this sense, the spiritual elements of Indigenous peoples' multispecies relationships may only exist in the eyes of conservationists if they do not deplete natural resources. Affect experienced by Indigenous people, such as the Shuar, exists if the physical species, the jaguar, exists.

Additionally, spiritual stories of the jaguar told by Indigenous peoples in Amazonia such as the Shuar have been included in a participatory jaguar conservation education project for younger children. Ecuadorian conservationists I interviewed explained how WWF has entered some communities in the Amazon and collected information on stories, local print stories about jaguars which have been built into a mini theatre presentation. These stories are written in Spanish and translated into Indigenous languages. WWF plans to expand this project not only to other communities but also cities in the country. Some of my Ecuadorian conservationist informants mentioned that there is a disconnect between the jaguar as it is perceived in the Amazon and then children in the cities do not really know anything about jaguars and do not ever hear these stories. In essence, a way of bridging the rural and cultural divide is through sharing narratives characterised by cosmovision and affective encounters to provide children in cities with a spiritual understanding of the jaguar.

The cosmological and emotionally charged human experiences with jaguars presented in this chapter raise several questions. Is a particular type of affect-laden experience prioritised by certain social actors? Do conservationists draw on Shuar affective encounters and cosmology to achieve jaguar conservation goals? I explore these questions in remaining chapters. Additionally, do the Shuar experience the same affective encounter as conservationists and wildlife volunteers when physically in the presence of a jaguar? This question will be addressed in the next chapter.

CHAPTER 4: THE THREATENING JAGUAR

Some social actors perceive the jaguar as a threat to their safety, animals, and livelihoods in an Amazonian Anthropocene. These threats are evident in beastly tales and identification articulated by my informants. Beastly identification, tales and their connection to the Anthropocene are presented by Mathur (2021b) in the book *Crooked Cats: Beastly Encounters in the Anthropocene*. In this work, Mathur (2021) dissects narratives and ecological, political and cultural explanations as to why big cats in India such as leopards, tigers and lions become "man-eaters" or "crooked cats" -felines who veer away from ecologically predictable animal behaviours. Beastly identification in Mathur's (2021a) work is used in reference to felines accused of attacking humans and labelled as "man-eaters". However, correctly identifying the original perpetrator is a difficult task, and often *a* feline is killed rather than *the* feline who attacked the human or livestock. This beastly identification is "localised, personalised, affective and momentary" (Mathur 2021a, 167). and is often implicated in beastly tales, which are, "stories that are populated by human and non-human beasts of all types and their intricate entanglements" (Mathur 2021b, 4).

4.1. The Shuar and a Fearsome Jaguar

A significant amount of scholarship discusses humans' fear of predators, such as sharks (Aich 2021), bears (Toncheva and Fletcher 2022) and big cats in India (Mathur 2021b). Kohn (2013) notes how the Runa are afraid of jaguars, as the introduction of *How Forests Think: Toward an Anthropology Beyond the Human* begins with Kohn being told to sleep facing up so he would not be attacked by a jaguar. During my fieldwork, some of the Shuar I met were also scared of jaguars and shared stories of fearful encounters. The leader of Buena Esperanza, the community my Shuar translator is from located just outside of Macas city explained that "here

we do not have a relationship with wild animals as many believe. We are afraid of them and at the same time we doubt them because they attack us and for us it is something fearful." A common perception is that Indigenous peoples and communities in the Amazon who live in the jungle are used to coexisting with wild animals. However, the wild as explained by this Shuar leader is something fearful as well, which coincides with Cronon's (1995) description of an unruly, untamed and desolate wilderness. The Shuar respect and admire the jaguar as a deity in their cosmology, but fear physically encountering this animal in the wild. This is similar to other animals such as boa constrictors and pumas. The leader of a Shuar community, Buena Esperanza, described his perceptions of the jaguar along with those of his community members:

> In my opinion, we should stay away from this type of animal…the jaguar is a very fearsome animal, so we don't know if we can get close to them…having jaguars here is very scary for us because they can eat a human being or a child, they can also eat our cattle.

Here the community leader identified the jaguar as a threat, a man-eater, and cattle-eater. The fear expressed by these informants is not exclusive to Shuar communities. A Shuar individual who works at the Central Association of the Shuar in Don Bosco Sevilla, just outside of Macas city, said, "The Shuar and non-Shuar people are afraid of the jaguar, since it comes to the communities to feed itself." Several Shuar communities and also non-Shuar, such as mestizos, inhabit Amazonian landscapes where the jaguar lives.

I spoke with two Shuar informants who explained physical encounters with jaguars. A member of the Buena Esperanza community described a close encounter he had while with his father many years ago:

> My father was cutting the brush with the machete when I saw the jaguar. My dad hadn't seen him yet when suddenly he jumped wanting to catch my father. I saw it and it seemed to me like a dry *guarumo* leaf falling from above. The animal saw me, but I had a shotgun with me. But it didn't stay, it just jumped, and my father

> got scared and ran away. It almost caught my dad, the jaguar did it with that intention. If it had caught my father, he would have been dead there.

This informant's recollection is a beastly tale which expresses fear and the expectation that the supposed jaguar was aiming to attack them, as they were prepared to defend themselves against this Amazonian predator. Evidently, safety is felt when jaguars and humans are in distant proximity to one another, and when they do not occupy the same spaces. The perception of the jaguar as an animal threatening human safety was also evident in the story my translator shared about how his grandmother learned to fight off a jaguar. My translator explained that his grandmother told him three options one has when faced with a jaguar and he used physical re-enactments. The first option was to stare the jaguar in the eyes, in hopes it runs away. The second option was to tire the jaguar out while ducking behind a tree, and the last option was death. This beastly tale told by my translator conveys the respect Shuar have for elders, and how they are perceived to be wise and strong individuals. As mentioned in Chapter 3, jaguars contain the spirit *arutam* which provides the Shuar with power and strength. Therefore, the elder's relationships with the cosmological jaguar also provide them with strength so they can fend off a jaguar during a physical encounter. Engaging in eye contact with the jaguar represents a strong multispecies interaction where human and non-human selves are met in an intense gaze. These beastly tales of a threatening jaguar have been passed down generationally and shared within Shuar communities. This suggests that fear of jaguars experienced by communities living near or in the jungle, such as the Shuar, is also shaped by oral tradition and histories.

4.2. "Jaguars do not attack people"- Conservationists

Conservationists recognize that people living in close proximity with jaguars are fearful of their physical presence. One of the conservationists that I interviewed said, "The perception that the natives have is that the jaguar is a highly respected animal and it causes them fear".

Another conservationist I interviewed said, “Yes, some people are afraid of the jaguars. And they're afraid of having their children out, like late at night, because they can attack them.” Despite this fear people have for their families’ safety, each of the conservationists I interviewed were not afraid of jaguars, and they did not perceive them as a threat. Conservationists were adamant that jaguars’ natural instinct is to flee when in the presence of humans. Four of the conservationists I interviewed have seen jaguars in the wild several times, while two had experience with jaguars in captivity. Adrian, who has seen jaguars 31 times in the wild, the most known of any ecologist/ conservationist in Ecuador, said, “They do not attack people. So when I hear these stories about, ‘oh, I was in the forest and this jaguar tried to kill me.’ I don't believe it at all. Because they don't do that. There's no reason for them to do that”. Though these researchers have spent extensive time in the Ecuadorian Amazon, these conservationists did not spend the majority of their everyday life in these habitats where they saw jaguars. Rather, these sightings mainly occurred during research related jungle expeditions. This differs from actually *living* in habitats shared with jaguars.

While talking to Adrian, he took out his phone and showed me an image that had been posted online that day. In the photo, a couple of people were posing with a dead jaguar in the jungle in Pastaza province. Though people may kill jaguars for different reasons (see Chapter 7), the ecologist said:

> People associate the jaguars with something bad. So, they say “if I don't kill the jaguar, the jaguar is gonna kill my dogs, its gonna kill my children”. They don't even wait until that happens. They see a jaguar they just kill it because it's gonna kill the dogs.

Rather than beastly identification post attack, Adrian suggests that humans identify the jaguar, as a threat based on beastly tales and the animal’s aggressive and powerful traits. As Indigenous communities, such as the Shuar, have a strong ancestral connection to the jungle and

many share a habitat with predators such as jaguars who have been known to kill their domesticated animals, such as dogs, their fear is not irrational. Even if jaguars attacking humans has not occurred, the physical traits of the jaguar as a powerful predator are enough to pose a threat to humans and elicit fear when encountered.

Though some beastly tales of jaguars appear fictitious to conservationists, Adrian explains how people seek to kill jaguars to demonstrate their bravery. He says, "old ones kill it to prove that they are brave." This statement aligns with the story told by my translator, as his grandmother had discovered strategies to fend off a jaguar. Retaliatory killing of jaguars in response to beastly identification and tales indicates how fear of the jaguar shapes human mastery and control over the "wild" in an Amazonian Anthropocene. The fearsome and threatening jaguar is a seemingly irrational characterization of the feline based on conservationists' experiences with jaguars in captivity and sightings during expeditions, it demonstrates how social actors can have diverse experiences in one place. The experiences of conservationists serve the interests of jaguar conservation motivations and projects.

4.3. Close Encounters – Volunteers

The volunteers I met at Los Jaguares Rescue Centre, like the conservationists, had an emotionally charged experience when physically seeing a jaguar. One instance became a popular warning to future volunteers. When I first arrived at the rescue centre, I was told a story about a volunteer from France, Ana who only a few days prior to my arrival had a fearful encounter with Nantar, the mother jaguar of the other two jaguars in captivity. The volunteer's two friends, Claude and Philippe, were with her at the time of the encounter. They explained to me that she was passing through the door to the jaguars' enclosure to feed them, when Nantar reached her paw through the cage and swatted at her pants. Ana agreed with this retelling of events and said,

“Mostly I'm afraid so I don't go often in the cage...But one time I was painting the cage, the inside of the cage in one part, and they jump on the cage. It was my second attack. They didn't touch me, but I was afraid again.”

Not only was Ana fearful of the jaguars after these two instances, but the volunteers who witnessed this also became aware of the power and potential danger when physically encountering this animal. After witnessing this event Claude said, “I really understand how powerful they are and how they can hunt because before that, I was only amazed [by jaguars]. And after that, I understand that they also implicate fear.” After experiencing these fearful encounters with the jaguars, Ana said, “Before I was thinking that they are a bit domesticated. But it reminded me that they are just savage animals and they are a bit dangerous.” Ana’s beastly tale conveys an understanding of the non-human “Other”, in this case the jaguar, that has been shaped by her experiences of attack, direct observations, emotions and affective response. Ana’s statement characterizes the jaguar as inherently wild and unruly. She also conveys how domestication is perceived to make the animal, such as the jaguar, less wild, more like humans and therefore a less threatening predator. However, Ana’s experiences indicate that “wild” behaviours of the jaguar and instincts can cause conflict, fear and injury to humans when in close quarters. Though Nantar is held in an enclosure, wildness in this case evokes fear and is a threat to the safety of caretakers (see Chapter 5).

4.4. Farmer and Feline Conflict

Predators’ attacks on pastoralists' cattle have been discussed extensively in existing literature. Hussain’s (2019) *The Snow Leopard and the Goat* explains farmer and snow leopard conflict in northern Pakistan, as the snow leopards prey on cattle which sustains their population. Similarly, Gagné’s (2019) *Caring for Glaciers* notes Ladakhi pastoralists’ fear of snow leopards

attacking their cattle. Dhee et al.'s (2019) study of human-carnivore co-existence in Himachal Pradesh, northern India, explains how shepherds and people instil fear in leopards by scaring them away. Mathur (2021b) in *Crooked Cats*, presents the example of *The Jungle Book* story which described how the injured tiger, Shere Khan was referred to as the "cattle thief" (p. 102). Mathur (2021b) also describes how crooked cats may target cattle in villages due to fragmented ecosystems. Like these examples, the farmers I interviewed described jaguars as a threat to their cattle and livelihoods.

4.4.1. La Quinta Cooperativa

One day at Los Jaguares Rescue centre, el Doc came to me and explained that farmers in La Quinta Cooperativa located outside of Macas city complained of an animal attacking their cattle, which they believed was a jaguar. El Doc then introduced me to Diego, one of the workers installing the new windows at the centre who lives in La Quinta Cooperativa. Diego offered to give me a ride to his community one day when he was driving home from Macas. El Doc knew people there and wanted to tag along as well.

Three farmers in La Quinta Cooperativa, provided me with insight into the recent attacks on their animals and the jaguar perpetrator. I spoke to one elderly man, Carlos, one elderly woman, Maria, and Rosa, a younger woman who had just returned home after a long day of work with her young son. According to Carlos, the jaguar killed approximately 12 of their community's animals, such as cattle, sheep and horses, but none of his personally. Maria and Rosa had lost some of their livestock, and like Carlos, they were both aware of their neighbours' stories of jaguar attacks. These stories contextualise the beastly identification of the jaguar. They emphasise fear, animal pain and death. When I asked Maria about the jaguar attacks, she

described stories of her neighbour's cattle being attacked and killed. While explaining this, she also described her mare's behaviour. Maria said:

> One day I was on the way to the farm, then a mare stayed there next to the trail and she kept neighing at me. I told her: What do you want to tell me? Then I saw her and told her: is the animal following you? But since she can't talk, she just neighed. The mare sensed that the jaguar was following her.

This interspecies communication between Maria and the mare, signified fear that the jaguar is approaching. The mare's response convinced Maria that the wild predator must be close by. Maria also explained the instance of when the jaguar attacked the mare. She said, "The animal was also following the horse that now brings the firewood, but the horse fought back. The rest of the cattle were scared. As soon as they saw a dog they wanted to flee, but the horse did defend itself. It was surly and it jumped and kicked, that's why the jaguar couldn't catch it." Maria's knowledge of the animals she cares for daily are apparent in the beastly tales she recalls of the jaguar's attack. Maria did not see the jaguar physically, but along with the community, they were able to identify the jaguar as the beast with an understanding of animal behaviour, such as defensive responses when threatened.

The farmers I interviewed mentioned wounds, scratches, claw marks and bite marks on their livestock. When I asked Carlos about the last sighting of the jaguar, he said:

> The last time people saw him was by Salina's farm, where he killed a mare and also attacked a mule that was tied up. The jaguar attacked him, but the mule broke loose from the harness and fought back. It seems that he kicked the jaguar because the mule had wounds from the jaguar's claws. The mule is skilled at kicking, so we think it was able to defend himself from the jaguar.

The beastly tale Carlos tells identifies the jaguar as the perpetrator due to the remaining injured animals and wounds. Livestock wounds were also mentioned by Maria, as she described how a neighbour discovered one of his calves. She said, "He saw that one of his animals had an injury and another was loose…He finally finds her at the foot of a matapalo (strangler tree). It

seems that the jaguar got on top of her and ate her neck." Similarly, Rosa explained how she found one of her calves after an attack, "I think that when the jaguar attacked her, she was asleep. She had no other wound on her body, just a hole that he must have left when he sank his fangs into her." These wounds are evidence of interspecies, conflict, violence, and death.

These farmers also described the size of pawprints they saw near their animals. When describing the scene left after the attack of some cattle, Maria said, "On Sunday, I saw bigger round paw footprints. However, those weren't dog footprints, but from another animal. I also saw large footprints, scary ones." Rosa similarly explained that she almost saw the jaguar because she found fresh pawprints near the cattle when she was in the process of vaccinating the group. When I asked Rosa if she was sure a jaguar was attacking her animals, she said, "Yesterday we went to the river and we think there is a small jaguar in that area. The footprint is smaller. It's the size of my son's fist. The large footprint was the size of his entire hand. This time my son measured it and it's only the size of his fist." Rosa then took out her phone and showed me a photo of the pawprint in the mud with her son's hand beside.

These pawprints have led to the beastly identification of jaguars as the perpetrators. They are representative of a single moment in time when the predator was physically there among the community and cattle. This trace has become part of the beastly tale of the jaguar's coexistence in this place. However, conservationists explain pawprint evidence is not interpreted correctly to identify the beastly perpetrators as a jaguar. The Director of Merazonia, a non-profit organisation in Mera, Pastaza Ecuador said, "people also confuse a big dog footprint, for instance, often with a Jaguar or puma." Therefore, pawprints could actually represent a multitude of different "beasts" in the Amazon preying on cattle.

4.5. "No, we aren't afraid" – Farmers Fending off Jaguars

The farmers I spoke with were not scared of jaguars and did not perceive them as a threat to their safety. Carlos said, "It's because people have grown up here in the countryside, so they have already seen him and they know that he only attacks the cattle. That's why they are not afraid of him." He also went on to say, "He doesn't attack humans, but we are afraid of him. If he attacks you, then you defend yourself with a machete." He said this while waving the machete he was holding in the air slightly. Everyone laughed when he said this. His remarks convey the superiority and invincibility humans and their culture (e.g., the creation of a machete) are believed to have power over wild animals. This aligns with the fact that farmers' experiences raising domesticated/ and domesticating animals as part of their livelihoods also shapes their understanding of animals' "wildness" as malleable. Carlos' comment in addition to the beastly tales previously mentioned indicate that farmers' experiences "with" the jaguar have been based on near encounters and the attack of their livestock. Therefore, they fear for their animals' lives more than their own.

Rosa was also not afraid of the jaguar and said, "For us, it would be nice to see it. We would like to take a picture of him." Although Rosa has lost cattle to the jaguar perpetrator, she is fascinated by and admires the power and strength of the wild animal. She also explained her 8-year-old son enjoys being around animals on the farm rather than living in the city. Thus, co-existing with predators and dangerous non-humans such as the boa may create moments of fear, though farmers have come to share this habitat and landscape with them peacefully.

The beastly tales convey the conflict in interspecies co-existence between cattle and jaguars. Though humans are not physically harmed, their livelihoods are implicated. Carlos said the approximate value of a horse in US dollars may cost between $300 to $400. A cow costs

more, about $500 or $600. This is not including the resources and labour that the animal provides them daily. While gathered around a farmhouse, we saw a horse carrying two huge logs on both sides, dragging them through the community alongside a farmer. As the farmers' laborious work caring for livestock is being threatened by a predator, this has motivated them to take measures to protect their cattle's' lives and their territory. Carlos, Maria, and Rosa mentioned that farmers would burn rubber tires near the cattle, as the smoke and toxic smell would scare them away. Rosa explained her other jaguar deterrence methods. She would also burn palm and termite nests to scare the jaguar away. She said:

> Also, we burn those comején (termite) nests…when setting fire to those nests it burns like wood and makes a lot of smoke, then the jaguar easily perceives it…The jaguar, which is afraid of fire, seeing this no longer approaches. Faced with this emergency situation, people have looked for ways to scare him away.

Carlos also said that people in his community would "fumigate the cattle with a mixture of water and cresol." Cresol is a type of aromatic chemical compound which can be used as a disinfectant. These examples illustrate another component of the beastly tales told by farmers, as these defence tactics are evidence of threats and relationships in an Amazonian Anthropocene. Farmers use these strategies to preserve the life of livestock and limit encounters with an elusive predator, though at the expense of killing insects and plants through burning and using harsh chemicals which threaten the environment.

An extreme way of eliminating the jaguar, the supposed threat to their cattle, is through retaliatory killing. Like Mathur's (2021a) explanation of beastly identification of "man-eaters" being impossible, the same applies to jaguars in Amazonia. Although sightings of the jaguar physically attacking the cattle are limited, farmers have made efforts to hunt down and find the jaguar they believe is killing their livestock. In particular, Maria was very vocal about wanting to hunt down and kill the jaguar lurking around their community. She explained how the Shuar

were asked to help hunt down the jaguar attacking their animals. Maria said that "Long time ago a Shuar who came from Nueva Alianza killed a jaguar that had eaten a packhorse. The Shuar was very skilled at hunting and he scared the jaguar and then shot him." Maria attempted to hire a Shuar individual to hunt the jaguar preying on their livestock currently, but this didn't go as plan:

> Now the jaguar eats the animals and I wonder: why don't they follow it, why don't they hunt it? They didn't hunt him here because I hired a native to hunt him when he was attacking the sheep. But it turned out that the native was the president of the park and reported it on the internet and social networks.

Maria highlights how the perceived knowledge Shuar people have of Amazonian species and experience they have navigating the jungle is valued by farmers in the context of hunting down a species, namely the beast threatening the lives of their cattle. However, this contrasts with the perspective of conservationists who perceive the Shuar as lacking knowledge because they are unable to correctly identify a jaguar's pawprints and understand the instinctual behaviours of jaguars. This example indicates how contrasting views of the Shuar are tied into people's social constructions of the jaguar. Also, the Shuar are willing to pursue and kill the animal they fear in exchange for monetary compensation.

Additionally, in Maria's last statement it is evident that conservation policy competes with local realities. The president's power, and the protection given to Sangay National Park was prioritised over eliminating the threat to the farmer's cattle. The jaguar's life is valued in the park's boundaries, though human inhabitants contest this. Maria said to el Doc:

> We know the consequences we face if we kill a jaguar. Whoever does it, goes to jail for a few years. Last year in Guamboya or in Pablo Sexto there was an attack by a puma and it was killed. The person who did it took photos of himself with the dead puma on his shoulders. That person is now in jail.

Though Maria is aware of the consequences of killing the jaguar, Maria attempted to outsource the job of killing the beast to potentially deny responsibility but also get the task done

quickly and successfully. Retaliatory killing of jaguars has been turned to as a means to resolve conflict in coexistence with predators in an Amazonian Anthropocene.

4.6. Conservationists' Perspectives on Farmer-Jaguar Conflict and Mitigation Strategies

The conservationists I spoke to recognize the challenges farmers faced because of predators such as jaguars attacking their cattle in Ecuador's Amazonia. One of the co-founders of JAPU said, "people that have cattle, or chickens are really afraid of having these big felons in the area, because you know, their stories about being attacked by them, or conflicts with animals and people." The Director of WCS Ecuador said:

> They see them as a threat. They fear them. And sometimes this fear is very legitimate…sometimes it's a bit exaggerated. Sometimes it's not even the jaguar that is attacking livestock, but people think it is and so sometimes, they do wrongly blame jaguars but in other cases, it's very well founded that fear.

Though conservationists are sympathetic to those who are fearful and negatively affected by jaguars, several conservationists mentioned that the jaguar is unjustly blamed as the perpetrator of these attacks. Though the "beast" could reasonably be a jaguar there are other animals capable of such attacks, such as Andean bears, pumas and feral dogs. As the jaguar is the iconic predator of the jungle and most well-known, it is an easy scapegoat.

Additionally, conservationists critiqued journalists' framing of beastly tales involving jaguars, arguing that news stories focus more on the fear rather than what is causing the issue. An Ecuadorian ecologist explained, "People are afraid of jaguars because they eat their dogs, but why do they eat their dogs? Because the jaguars don't have anything to eat.... so go into describing this problem instead." According to the director, telling beastly tales about a jaguar attacking livestock or dogs, without taking into account declining species populations and conditions of an Amazonian Anthropocene will encourage fear and retaliation. According to the

conservationists, jaguars may turn to domesticated animals, such as dogs and livestock as a source of food due to an absence of endemic prey.

To learn more about jaguar-human interactions in Morona Santiago province I visited the Ministry of the Environment and Water office located on the road to San Isidro just outside of Macas city. The office provided me with a document, part of which contained a form for farmers to fill out if their cattle was attacked. The form asked for details of the attack and provides a diagram for individuals to draw where wounds and bite marks were found on their animal (see appendix F). Despite the fact this form exists, people in this province do not interact with government offices often. When I asked farmer Maria if they receive any government assistance to manage attacks on their cattle, she said, “No, the government doesn’t help us. They don't even know where we live.” When I asked farmer Carlos about his thoughts on potential mitigation strategies, and even the possibility of fencing measures, el Doc interjected and disagreed. He mentioned that “people sitting behind computers” shouldn’t be the ones trying to solve this issue. The conservationists I interviewed also expressed that there is no relationship between communities and the government, which affects their ability to deal with jaguar-wildlife conflict. A representative from Fundación Condor Andino said:

> The problem in general is that conservation initiatives are not directed or created by the government, they are developed by private institutions. That’s why we are forced to take action in the face of the government's inaction. Therefore, when we talk about relationship, the relationship is very bad. The government doesn't even know how to address the issue. If there is a people-wildlife conflict, they send state officials whose only strategy is to threaten people by saying that if they kill the animals, they will go to jail or have to pay fines.

This not only reflects grievances expressed by farmer Maria, people in Morona Santiago and the general population, but also how local and international NGOs are creating and implementing conservation projects to mitigate fear and retaliatory killing. Both WWF and WCS

Ecuador have created jaguar education programs to educate school aged children in remote Amazonian communities about the importance of the jaguar and why it is not a threat. The representative from Fundación Condor Andino said that they are currently working with the Ecuadorian government and WWF to develop a jaguar- human coexistence strategy with the government.

Julia, an Ecuadorian conservationist said, "Sometimes the best way to conserve jaguars is not even to do anything related to jaguars." Managing and regulating hunting of animals in remote communities as discussed in Chapter 2, is also a method of ensuring jaguars have enough prey and do not need to attack livestock. Also, WWF and WCS Ecuador have encouraged communities to rely on alternative sources of protein such as chicken and fish, which requires less time, money, land to raise in comparison to cattle which also contribute to greenhouse gas emissions. These conservation projects consider global environment and climate concerns in their methods to govern social actors' livelihoods in an Amazonian Anthropocene.

Some of my informants welcome the solutions and strategies previously mentioned. Several Shuar individuals I interviewed said they would support conservation projects as long as their community received financial compensation and their land was protected. Similarly, according to conservationists' experiences and my conversations with Carlos, Maria and Rosa, most farmers are open to learning about ecologically sustainable agro-pastoralist practices and will support conservation projects if they receive financial compensation. This is challenging, as all NGOs working these projects noted a lack of funding for their work, and that communities needed to be invested in the project goals for it to be successful – compensation would not solve the problem. Therefore, mitigating threats associated with the jaguar also involves addressing power inequalities, peoples' habits, and distribution of wealth.

On Tuesday August 16th, 2022, when el Doc, Alvaro, Diego, and I left La Quinta Coopertiva that evening we stopped in the same spot where we admired the view of Sangay volcano and the Upano river at sunset. The five of us admired the beautiful view, not saying a word, listening to the sounds of birds, and bugs chirping. Other than the road we were standing on, the landscape in our view seemed peaceful and untouched. I was convinced there could be a jaguar lurking in the jungle behind us. For the first time, I saw el Doc take out his phone and take a photo of the scene. He's a person that's seen so much of the beauty the Amazon and Ecuadorian landscapes have had to offer over the years and even he was amazed. At this moment, I began to understand why this area was protected. Its dense forest and wildlife make it a beautiful tropical landscape, but human presence and activity is infringing on this wilderness. After thinking about this location and the information I learned from my informants, I began to wonder: Are jaguars fearful of anthropogenic disturbance? Do they feel threatened? Are humans the real threat?

CHAPTER 5: SEMI-WILD JAGUAR

In this chapter, I discuss human and jaguar relationships in captivity and how becoming with jaguars in an Amazonian Anthropocene blurs distinctions between "wild" and "domesticated". Several theoretical underpinnings are relevant to this chapter. The notion of companion species and becoming as theorised by Haraway (2008) is relevant when examining relationships between humans and jaguars. When humans have jaguars as pets or care for them in captivity, jaguars and humans may become companion species in which their worlds, nature and culture collide in an interspecies relationship. I also discuss how "wild" and "domesticated" are challenged and both constitute the state, identity, or behaviours of a jaguar, often drawing on the concept of "semi-wild" when describing the jaguars at Los Jaguares Rescue Centre. "Semi-wild" is a category in between wild and domesticated which Parreñas (2018) uses to describe orangutans who demonstrate animal instincts and behaviours in relation to human care in a state of captivity. According to Parreñas (2018), orangutan rehabilitation centres challenge the great divide between humans and nature by producing a semi-wild place and semi-wild non-humans. Parreñas (2018) states that, "Semi-wild is a more honest term when release to the wild is uncertain." (p. 18)

Throughout this chapter I illustrate how care towards jaguars implicates wildness and domestication. The notion of care in multispecies ethnography refers to the treatment and welfare of non-humans (see Chapter 1) (Bocci 2017; Cook and Trundle 2020; Gagné 2019; Parreñas 2018). Caring practises in the context of environmental conservation may minimise the damage and length of the Anthropocene (Bocci 2017; Cook and Trundle 2020). For example, in Gagné's (2019) work *Caring for Glaciers*, the people in Ladakh, India believe glaciers are disappearing and the climate is changing because people no longer care for surrounding natural landscapes.

Care towards non-humans is often also informed by responsibility and obligation (Gagné 2019). Gagné (2019) describes how care for Ladahkis is anchored in reciprocal relationships and moral responsibility, as they feel obligated to care for domesticated animals and the land which have sustained them for generations. Care may also be characterised by violence as Govindrajan (2018) explains how in India's central Himalayas care work is performed for animals which are sacrificed but are also perceived as kin, such as goats. Similarly, Bocci (2017) describes how caring for one species may result in violence be afflicted onto others, as goats on the Galapagos Islands in Ecuador were exterminated in order to save tortoises from extinction. In this chapter, I consider these complexities of care in relation to caring for jaguars.

The care performed through custodial labour, such as animal husbandry tasks may produce affective encounters between humans and non-humans. Parreñas (2012) experiences this "surge of affect" when carrying Gas, a juvenile orangutan back to their enclosure, as the experience "entailed our attentiveness to both our bodies in the quickly fleeting moment of encounter" (p.677). Parreñas (2012; 2018) argues that it is affect laden experiences such as these which intrigue the interest of foreign volunteers to participate in care work for endangered wildlife. Intensities experienced by volunteers in custodial labour and animal husbandry tasks for rescued animals were evident in my interviews, observations and experiences caring for the jaguars and other Amazonian wildlife at Los Jaguares Rescue Centre (see Appendix D). Caretakers at the centre are also consciously trying to preserve the "wild" survival behaviours, habitat features and instincts of jaguars in captivity through care work which supports the rescue centre as a type of conservation project. This conceptualisation of a conservation project is informed by the conservation narrative to save a non-human species, along with Sherry Ortner's (2006) definition of project as a set of culturally defined goals, desires and intentionality.

5.1. Jaguars as Pets

According to my informants, people keeping jaguars as pets is not as common in Ecuador today as it was 50 years ago. This is mainly because Amazonian wildlife has more legal rights. The Ecuadorian government passed legislation to protect jaguars in the 1970s (Gamillo 2022; Surma 2022). Also, in January 2022 Ecuador's High Court ruled in favour of "the rights of nature" in the case of a woolly monkey, Estrellita, who was taken from the wild when she was one month old and kept in a private residence as a pet for 18 years (Gamillo 2022; Surma 2022). The court ruled that animals have the right to live cruelty free lives in nature. Despite these laws and court rulings, a few of my informants explained previous and recent stories of people keeping jaguar cubs as pets. One very well-known case mentioned by conservationists occurred in Guayaquil, one of the largest cities in Ecuador located on the coast. My informants explained how wealthy people in the city were spotted keeping young jaguars as pets in their house. Several environmental NGOs tried to spread awareness of this case and issue on social networks, but authorities never provided an update. There was also another a case of jaguars being kept as pets in Macas, which Proyecto Sasha, an Ecuadorian veterinarian rescue organisation, was notified about:

> The jaguar has a spiked collar, like the ones they put on dogs. They were two puppies and that happened in 2021. There is also a complaint that we posted on social networks and that some NGOs reposted, but there was no reaction from the prosecutor's office or the police…The two jaguars in the video were from Macas. And a vet contacted us because he wanted to know about those jaguars. He wanted to know how to get their fangs and claws out, because someone would pay him to do it. That also happened in January 2021.

These cases illustrate how people may seek to become companions with jaguars, similar to becoming with dogs. The wildness of the jaguar is colliding with human worlds and they are becoming domesticated in human care. The jaguar's wild traits can be threatening as a

companion, thus the second case in Macas demonstrates an attempt to physically remove the wildness (fangs and claws) out of the jaguar, which is perceived as a threat. Though physically removing threatening wild traits of a pet is not uncommon, as this declawing procedure was done for house cats in Global North countries for many years, and only recently becoming illegal in some countries, states and provinces. Therefore, why do people want jaguars as companion species? Why not have a cat or a dog as a pet? After mentioning the jaguar pet case in Guayaquil, the cofounder of JAPU provided his reasoning, "It's just a matter of power. Say, 'Hey, I have a jaguar.' Just the same way in Dubai, people have cheetahs." Several studies have examined pets as status symbols around the world (e.g., Plemons 2009). According to Spee et al. (2019) celebrities posted photos of exotic pets on social media, and eighty-five percent of these species were considered endangered. Therefore, the cofounder's description illustrates how jaguars may be sought as pets because their wildness makes them valuable and more difficult to domesticate and exist under "man's dominion" (Darwin 1988), which gives the animal owners a sense of power and prestige.

While some may have jaguars as pets to assert social status, the Shuar informants I interviewed explained that baby jaguars were previously kept for protection. My Shuar translator said, "Before yes, our ancestors, the Shuar Indigenous people would take them as babies have them as dogs. Because it was (the jaguar) very protective. The jaguar can attack you...they are very intelligent and also is very telepathic...they know what is happening." This comment along with the stories told by conservationists above, it is evident that pet jaguars, through being cared for and treated as a dog, become dogs, taking on their worldview and purpose. The cosmological importance of the jaguar according to Shuar beliefs shapes perceptions that the jaguar is a loyal, protective and telepathic pet, as it is a more revered species than dogs. My translator also

mentioned a friend who had a pet jaguar several years ago and said, “when you feed them, then they'll have love with you. They'll grow up and protect you very well... more than the doggies.” This illustrates how the protective nature and loyalty of the jaguar towards humans is supposedly strengthened by human care and nourishment. In both examples, although the jaguars undergo the process of domestication, there are mutual understandings, roles, and emotions shared between humans and jaguars. These pets express sentience and are not necessarily “passive non-social objects” (Scott, 2015).

5.2. Los Jaguares Rescue Centre

Los Jaguares Rescue Centre is located 7km on the Highway from Macas City to San Isidro (via Riobamba) in the suburbs of Macas city. A few residential properties and tiendas (stores) line the main road leading to the centre. As you walk up the dirt path to the centre, you see a wide building with a dulled red painted roof. You can see a mountain in the distance covered with a blanket of thick forest. Further up the dirt road, there is a small path which leads to the Jurumbaino river where people often go swimming. As you approach the main building there is a sign to the left of the entrance which has a beautifully painted image of a jaguar. The entrance itself did not have a door when I arrived, and there were also no glass windows. According to the manager of the centre, they have not had any issues with petty theft because the jaguars are their security. As you walk further along the concrete path straight ahead, the front building opens into a courtyard. There are four dormitory style rooms located towards the left. The rooms themselves are modest, made of brick with a tin roof and concrete floors.

As you walk straight past the volunteer centre living quarters the rescue centre area begins. Immediately to the right there is the “animal kitchen”, on top of a wooden deck which consists of wooden tables, fruits, vegetables and seeds for the small animals at the centre along

with machetes to prepare the food. Beside the deck there is an outdoor sink, where raw meat, such as cow and chicken parts, are cut up for the felines, and chicken coops. As you follow the path from the animal kitchen which curves around the property, you walk past the animals in this order: turtles, monkeys, agoutis, guatusas, the jaguars, the puma and then the parrots. Along the path, growing in and around the cages are several Amazonian trees, plants and flowers. It feels like a tamed version of the Amazon.

The act of rescuing can be perceived as a type of care which improves one's welfare and condition. El Doc has rescued several animals, and his care and love for animals led to the creation of Los Jaguares Rescue Centre, the only rescue centre located in Morona Santiago province. The rescue centre is a type of conservation project which directly sustains the lives of species in its care. In the beginning, el Doc had rescued parrots and a tapir from poor captive conditions. After this, el Doc said his friends told him about a jaguar that had been captured by people on the border with Peru, who no longer knew how to look after the jaguar cub. El Doc was intrigued, as he had seen jaguars killed in his community as a child and wanted to do what he could to protect them. El Doc described what he learned of the jaguar cub's story once he arrived at the community:

> I decided to go there and rescue the baby jaguar, which had been captured when his mother had gone hunting. The baby was left alone in a cave and the owner of those lands found him and took him to his house. The feline grew and began to eat the other animals in the area, first a chicken and then a guinea pig. Later, it became a problem because the neighbours began to complain that the jaguar ate their animals, until they had to tie it to a tree. I went to visit him…The jaguar was about 5 or 6 months old, it was very strong but a little thin because it was tied up and poorly fed.

El Doc said that the man keeping the jaguar no longer knew what to do with the cub as it would no longer survive in the wild. To individuals who work in animal welfare, humans domesticating "wild" animals and holding them captive infringes on the agency and sociality of

the “wild” animal making them dependent on human care. Despite being held captive the cub’s instinctively wild behaviours as a predator were difficult to control and care for, therefore it was unlikely someone else could easily care for the jaguar. El Doc wanted to take the jaguar with him and said, “Since I had good cattle, breeding cattle, then he told me: give me a medium bull to reproduce on the farm. And there we made a trade.” El Doc kept the jaguar’s given name, Ranger. The rescue story of el Doc’s first jaguar, Ranger, illustrates the complexities of jaguar care and what constitutes appropriate care. Once the cub outgrew his captive conditions, acting as a feline predator while living in close proximity to humans, the jaguar became a nuisance and a threat. El Doc took on the responsibility of caring for Ranger as a result of the man’s actions which impeded the ability of the jaguar to survive and care for itself.

El Doc’s exchange of a cattle for the jaguar cub is symbolic of a paradoxical multispecies assemblage in an Amazonian Anthropocene. El Doc trades an animal, cattle, in exchange for rescuing the jaguar, whose population has been threatened by the success of cattle presence in the province. The man who needs to make a living values the cattle, while el Doc values the jaguar. This is an example of how caring for animals and animal lives is influenced by the values and prerogatives of humans in a planetary and localised Anthropocene. Rescuing jaguars serves the project of Los Jaguares Rescue Centre and jaguar conservation, while the cattle serve the man’s livelihood.

Five years after el Doc rescued Ranger, two jaguar cubs were brought to the rescue centre. Apparently two farmers had captured the cubs who had been swimming with their mother across a river. El Doc said:

> The mother was impossible to catch because she could eat them [the farmers], so the mother continued swimming in the big river and they only managed to catch the pups. I think the farmers kept them for about two days, they made a small cage with sticks and tied it up very well, and one day they arrived here. Those

> who caught the puppies were the uncles of the boy who worked with me…They came here because they knew that I had a jaguar, a tapir and some monkeys…So, I made a larger makeshift cage and kept them there and that's how the two siblings grew.

El Doc named the female jaguar cub Nantar, which means "lucky stone", and the male jaguar cub Amaru which means "strong, brave and fearless". Nantar is currently the oldest jaguar at the rescue centre. These stories illustrate how rescuing jaguars implicates and also complicates categories of wild and domesticated and also demonstrates shifting responsibilities of care and captivity between humans in an Amazonian Anthropocene. El Doc did not rescue the jaguars in an effort to maintain their captive conditions and domesticate them, but rather to reinstate their agency and wildness as best he could in captivity. The individuals who captured the jaguars changed the jaguars from wild selves to captive selves. Though clearly, their captors' inability to manage their behaviours demonstrate that these jaguars are "semi-wild" selves. Based on these examples it is evident that the rescue centre gained its reputation as a conservation project where people may bring "wild" animals for appropriate care.

Los Jaguares Rescue Centre is well known as the very first place in Ecuador where jaguars were successfully bred in captivity. Six jaguars were born at the centre and two offspring remain at the centre, while two have been relocated to the Cuenca Zoo and two now live at the Quito Zoo. El Doc explained how he decided to mate Ranger with Nantar. He said, "since the cages were close he (Ranger) smelled her. So, I made an entrance tunnel to the end and put Nantar there for about five days so they would be close." El Doc said that Ranger and Nantar were not compatible when he first tried to mate them:

> The first thing Nantar did was attack the male. Ranger was twice her size, but he was still afraid of her because she was so dominant. Nantar, after hitting him tried to play with him, but Ranger ran away from her. As she was used to playing with her brother, she wanted to do the same with Ranger but he ran and hid behind a

> log. Four months passed but they did not empathize, I saw that they were not compatible, so I decided to put Nantar back with her brother.

Eventually, Nantar and Amaru mated, which resulted in the successful birth of jaguar cubs at the centre. By encouraging copulation of jaguars in captivity, el Doc was manipulating "wild" tendencies. The agency of the jaguar is confined to not only the enclosure but the actions of the caretaker. This encouraged copulation between Nantar and Ranger parallels with the work of Parreñas (2019). Parreñas (2019) explains that forced copulation among orangutans in a rescue centre results in the sexual exploitation of female orangutans. However, at Los Jaguares Rescue Centre, Nantar, the female jaguar, defends and resists copulating with Ranger, displaying dominance. Eventually, el Doc realised their incompatibility and sympathised with Amaru who missed Nantar so much that he lost weight and roared frequently. This copulation among jaguars in captivity reveals that el Doc's relationship with the jaguars is characterised by interventions that will eventually generate complete domestication. El Doc recognized the thoughts, feelings and agency of the jaguars and did not continue to force their copulation, illustrating multispecies influence and bond. This also illustrates how the agency and lives of jaguars are implicated in the goal of this conservation project - to increase the jaguar population in Ecuador.

5.3. Caring for Jaguars[10] Cubs in Captivity

The interviews I conducted and animal husbandry tasks I partook in with volunteers at Los Jaguares Rescue Centre provided insight into the complexities of caring for jaguars. El Doc explained the feelings of excitement but also concerns about Nantar's cub, Tiara's, birth:

> My biggest concern was that Tiara was born in May, a month when it rains a lot, it is very cold, very humid, and I was afraid that she would die. I was also afraid that the mother, because she was new, would not take good care of the baby. So, I took a risk, I told myself: I am going to rescue that baby. The authorities knew that her mother was

[10] Inspired by Gagné's (2019) work "Caring for Glaciers"

> pregnant, and if she did not take care of her, they would say: what happened, why did she die? There was going to be a lot of criticism.

This story illustrates how human intervention and the Anthropocene redefine humans breeding animals in the context of domestication. A main characteristic of domesticating animals is breeding them in captivity for human interests. However, el Doc's explanation complicates this. Los Jaguares Rescue Centre is breeding the jaguar to save the genetic species' existence in an Amazonian Anthropocene. The anxieties el Doc experienced around the birth of the jaguar cubs at the centre illustrate his own interest in breeding the jaguars. Not only does el Doc care about the jaguar's life but he also explained that the successful birth of Nantar's cubs would be an "achievement" as the Quito Zoo and Cuenca's Bioparque had no success breeding jaguars in captivity. The social pressures from government authorities, along with the possibility of gaining recognition for a successful birth, motivated el Doc's actions to provide extra care in order for this conservation project to be successful. This pressure also made el Doc doubt Nantar's ability to instinctually care for her offspring as a "semi-wild" jaguar. El Doc explained, "When they (jaguar cubs) are born, they last with their eyes closed for four or five days, but they do not stop moving and they are always attached to the mother, they spend hours and hours attached to the mother's nipple." El Doc decided to intervene, and physically broke this bond to ensure the jaguar cub's survival. He said:

> I raised her from two days old and put her close to a heater to keep her warm and took her to a veterinary clinic. I paid someone to take care of the animal, because I didn't have a clinic here or enough space. I needed a person to feed her, because it is an animal that moves a lot, it is not like a cat or a dog.

There is a significant difference between care provided by Nantar and veterinarians such as el Doc. Even though Nantar is giving birth in captivity, Nantar's motherly instincts represent a "wild" form of care in physical encounters, between mother and cub, providing warmth and

nourishment outdoors. This is how many species, not only the jaguar, raise their young. El Doc's intervention involves artificial warmth provided by technology, human caretakers and supplemental food and nourishment - it imitates "wild" instinct. Human care in this context is seen as being more adequate than the semi-wild care Nantar can provide.

Ultimately, el Doc's care intervention had an impact on the bond formed between Nantar and her cub. El Doc said, "When I brought her from the clinic, the first thing I did was lock up the mother and put the baby near her on the bed. But the mother did not accept the baby. So, I told myself if I leave her there, she's going to die." In order to "save" the cub from probable death, el Doc took on the responsibility of keeping the jaguar alive. He said, "So I took her to my room and put it in a little drawer near my bed and put something soft and warm around it. I always had to put on gloves and feed her with a bottle, and she would move, smell the bottle and eat". El Doc also bought Tiara a pet when she was one month old. He said, "I bought her a pet, a tiny white puppy and I put them together. They both became friends and played. My idea was for the two animals of different species to socialise and coexist." The companionship between the jaguar cub and the puppy is a multispecies relationship symbolic of two worlds of domestication. Tiara is typically an animal that is not domesticated by humans whereas dog and human relationships are typical in Amazonia. El Doc also socialised a predator, Tiara, with an animal that it is usually known to kill as prey. Several conservationists I interviewed and previous work in Amazonia, such as that of Kohn (2007) note how jaguars attack feral and domesticated dogs.

Nevertheless, these examples show how el Doc took on the role of raising the jaguars as his own children. Santiago, the volunteer coordinator and manager of the rescue centre, was present when the jaguar cubs were born. When describing the experience of seeing newborn jaguars, Santiago said, "I felt like the mom just allowed us to watch the babies and maybe they

felt that we are not trying to do something bad because also el Doc was there. El Doc is like their dad...dad of the jaguars." Santiago's remarks convey that el Doc's presence did not startle Nantar but rather that el Doc had a connection and bond with these jaguars due to custodial care he has displayed towards Nantar since she was rescued. Through becoming a father to these jaguars and animals, el Doc considered human care, jaguar and wild care practices. El's Doc's role is evidence of interspecies kinship. According to Govindrajan (2018), interspecies kinship is, "fostered through the embodied experience of everyday entanglement in relations of care, attention, and subjection." (p.505). Through this kinship bond between el Doc and the jaguars in captivity, the jaguars are not completely domesticated or wild. The jaguars' captive state is due to events of an Amazonian Anthropocene rather than el Doc's decision to capture and domesticate them. Animals such as the jaguars at the rescue centre are calm or even show excitement in his presence, while el Doc as evident throughout his comments and stories, experiences an affective response, deep appreciation and love for the animal when in their presence. El Doc has also saved the jaguar's lives and considers their sentience and agency when caring for them, while the jaguars have influenced his work, mission and passion in life.

Humans experience grief and pain with the loss of non-human companions such as animals have been discussed in multispecies ethnography. Chao (2022) explains how the Indigenous Marind communities in West Papua mourn the loss of non-human lives in their ecosystems affected by deforestation. Garcia (2019) explains experiencing mourning and grief after tragically encountering a pregnant guinea pig's death at a guinea pig farm in Peru. Gillisepe (2020) describes feelings of grief when witnessing the embodied experiences of dairy cows in the Pacific Northwestern United States. These texts illustrate just some of the ways humans can experience grief for non-humans included in their sociality, the companions with which they

have a physical bond or domesticated relationship. During my fieldwork at Los Jaguares Rescue Centre, I found that el Doc expressed this affinity and grief towards deceased jaguars despite being unable to physically bond and forge a domestic relationship with them due to their wild instincts.

There is no doubt that el Doc has a special emotional bond with jaguars. He even said, "The attention and care that I give them here will not be given elsewhere. I have an affinity, a love for them." The strength of this love was especially shown when jaguars in his care have been injured or have passed away. El Doc's first jaguar, Ranger, passed away due to an unfortunate mistake. The caretaker who was feeding Ranger forgot to remove the plastic earring on the cow's head before feeding it to him. El Doc explained the events which occurred:

> The moment the jaguar ate the ear, it swallowed the earring and it stayed in its stomach, it stayed in its small intestine. I got permits to take him to Cuenca because there were still no veterinary clinics or X-rays here, so I asked for permits to take him to a friend's veterinary clinic in Cuenca, but it was too late. I was treating him for indigestion, but it was not enough. He was a very tame animal, he even stayed calm for the doctors to treat him while I caressed him. I remember that one day before his death, my daughter had him in her arms and he was much bigger than her. The loss of this little animal was very painful.

This tragedy illustrates the love and bond between el Doc, his daughter, and Ranger. The emotional bond and pain el Doc experienced was created by his experiences rescuing, caring for Ranger and admiring his wildness. Only towards the end of the jaguar's life did el Doc and his daughter have a natural physical encounter with the animal as the jaguar's wild instincts as a predator were weakened, which exasperated their pain and grieving.

Ranger's death is a result of human existence and domestication of animals, such as the cow, as the caretaker's inaction in removing the cow's earring caused Ranger's death. This also demonstrates the level of responsibility humans have when caring for non-humans in captivity, as the jaguar's wellbeing and nourishment depends on caretakers. Additionally, Cuenca is a

much larger city than Macas and therefore has more resources and professionals which could have helped Ranger. Thus, the rural-urban divide also explains the challenges el Doc faces when caring for animals such as jaguars in a smaller city.

While looking for a tool in the animal kitchen at the rescue centre, I came across a stuffed jaguar head behind a cabinet. Santiago, the volunteer manager at the rescue centre, told me it belonged to Amaru, Nantar's brother, who had died a couple of years ago. Apparently, there was a long wire hanging down from the top of the jaguar enclosure. Amaru lept and he was caught in the wire. Santiago and el Doc were unable to enter the enclosure, as Nantar would not leave his side and she would likely attack them if they came close. El Doc was saddened by this tragedy as although he did not have physical encounters and a domesticated relationship with Amaru, he mourned his story of rescue and mourned him as the father of his jaguar offspring which are foundational to the centre's success. Apparently, Santiago told el Doc to bury all parts of Amaru, but el Doc refused and kept that stuffed jaguar head in his memory. I realised that el Doc must be having a difficult time coming to terms with Amaru's death if he would not let the jaguar's head go. This stuffed jaguar head is an attempt to keep his memory alive.

5.4. Volunteer Experiences Caring for Jaguars

"But you need to watch your back. They may deceive you," said Claude as he was explaining how volunteers feed the jaguars at Los Jaguares Rescue Centre. That day (July 29th, 2023) was my first time feeding the jaguars at the rescue centre. We were going to hide the pieces of cow meat in the jaguars' enclosure along with leaf wrapped packages of bone marrow. When we first went over to the jaguar enclosure with the bowl of meat, the jaguars came over right away and looked at us very intently. Santiago pulled the separating gate door in the middle of the enclosure down so the three jaguars would stay on the left side. Once the door was secured

we entered the right side of the cage. The side of the enclosure jaguars are fed on each day changes as unpredictability stimulates them. Santiago and Claude explained that you have to climb into the enclosure and past the separating door quickly because the jaguars could easily pounce and scratch us with their paws through the grated metal (see Chapter 4). Once we entered the enclosure, Claude and I hid pieces of meat high up in a tree while Santiago dispersed the bone marrow pouches throughout the enclosure. Once we exited the cage and the door was shut, Santiago lifted the gate and the jaguars fled to the left side. Immediately one of the jaguars sprinted to the tree and pounced, grabbing the meat. They were swift, quick and quiet. The volunteers and I "ohhed" and "ahhed" as we watched.

This was the first of several times I was able to feed the jaguars at the rescue centre. The feeding method was introduced by an Animal Welfare student from Italy, Anthony, who stayed at the centre in 2021 for two months in order to conduct research for his Bachelor's Thesis. Anthony explained that this enrichment is more stimulating for the jaguars, as it is an attempt to mimic wild feeding tendencies in captivity. In addition to continuing Anthony's program, Santiago and el Doc also explain that the jaguars were fed six days a week. The day they were not fed would vary, as they wanted to mimic conditions in the wild, as jaguars would often go days without finding and killing prey in the jungle. The preservation of wildness in captivity seems contradictory. Is it possible to preserve wildness of jaguars if they are in captivity? According to the rescue centre's care practices, preserving wildness is possible because their conceptualization of wildness is rooted in animal behaviour and instinct, rather than habitat, condition and lifestyle.

The jaguars were the most exhilarating and dangerous of all the animals to feed at the centre. We would have to usually lure the jaguars to one side of the enclosure with a piece of

meat to lock the gate. Hiding meat in their enclosure felt like setting up a treasure hunt. Watching the jaguars bolt out of the door and often find some pieces of meat within seconds was exciting. As previously described in chapter 2, volunteers had positive perceptions, emotionally charged experiences and sometimes fearful encounters (see Chapter 4). Philippe, a volunteer from France described the "sneaky" behaviour of Nantar once she has been fed meat in the enclosure. Philippe said, "I was very shocked and surprised by the mother because she's very sneaky. When we give food she doesn't go directly to the food she's more waiting and analysing the environment. She analyses our acts, how we are, what we are doing." Nantar would often reach her paw through the iron grate quickly as soon as a person passed through and because the area was so small, it involved quick reflexes and dodging. They would also hiss and growl at us, usually if they were very hungry. I remember the intensity and adrenaline of entering and exiting the gate and those fleeting moments of Nantar's paw coming very close to my leg or scratching my boots. An Austrian volunteer described these moments and said:

> I just recall that every time I went into their enclosure to hide the food I was kind of freaked out because there is just this fence and this gate between you and them and they try to somehow get through and poke at you or something and at times like this you know that they are dangerous animals and won't hesitate to bite you.

This experience parallels Parreñas' (2012; 2018) description of intensities experienced between humans and orangutans in captivity. Sometimes they elicit feelings of fear, danger, but also affinity. The jaguars' reactions towards people while feeding them indicate that they do not like humans. Santiago would always tell people this is a good thing, because wild jaguars are not supposed to be fond of humans. Santiago and el Doc were proud of this fact, as they wanted to preserve the wild instincts of the jaguars for as long as they could.

This same feeling of a "close call", the momentary feeling between the bodies of jaguars and humans occurred when the volunteers and I were instructed to feed the jaguars from outside

the cage due to repairs happening on the right side of the enclosure. We fed them some meat through the stone openings where they usually have water, making sure we were careful of our fingers. Then Daniel, another volunteer from Austria, and Claude stuck the meat up higher on the outside of the cage as they had seen el Doc do previously. Nantar then quickly climbed up the cage and began reaching her paws through the cage grate, reaching for the meat by the "Do not touch" sign for tourists. She was not as calm as when el Doc fed her this way, which scared the volunteers. Claude said that he was even more nervous feeding the jaguars after this experience compared to the beginning of his three-week internship. Like people who live close to jaguar habitats, the volunteers felt it was much easier and safer to keep distance between themselves and the jaguars.

5.5. Value and Meaning of Life in Captivity Versus the Wild

Los Jaguares Rescue Centre is countering extinction by sustaining the population of living jaguars in Ecuador. The centre also provides opportunities for ecologists and animal welfare specialists to study the species. Anthony said, "the center deserves a lot more attention and like value from the scientific community, which is actually not given at all." This is because the centre raises jaguars with semi-wild behaviours and instincts. Anthony said, "These jaguars are in the centre of a second generation of Jaguars that are coming directly from the wild. And usually this is not the case in zoos."

While at the rescue centre, I saw older signs with the word "zoo" under the centre's name. Los Jaguares Rescue Centre straddles the rescue centre-zoo boundary. Zoos typically breed animals and care for them for profit, welcoming visitors and tourists. Meanwhile, rescue centres take in animals that have been poorly cared for, without the intention of making a profit or breeding. Considering these definitions, how is Los Jaguares Rescue Centre different from a

zoo? Volunteers also grappled with this same question. Though the centre rescues animals that would otherwise survive in the wild, they have bred jaguars which have been transferred to zoos across the country. The animals in their care are also not released into the wild. This is mainly due to their contact with humans and partially domesticated behaviours which would affect their instincts and ability to survive in the jungle. Also, due to the conditions of an Amazonian Anthropocene, there is no guarantee they would be released into a healthy and natural environment. As Anthony explained very clearly, "Jaguars were just rescued because of el Doc's passion, not because he has a mission of saving Jaguars throughout Ecuador." Although el Doc does his best with the resources he has, there are limits to the care he can provide. He said, "The space that I have is within the parameters of the MAE (Ecuador's Ministry of Environment), but the truth is that it is very small and I worry that there will come a time when the animals lose their feline hunting instinct, that they lose their motor skills."

As discussed throughout this chapter, Los Jaguares Rescue Centre tries their best to maintain the wild lives of jaguars and preserves the authenticity of the jaguar. However, the centre's jaguars' lives were greatly changed once humans infringed on their freedom in nature. One of the volunteers, Philippe, wondered what it must be like for Nantar to live in captivity. He said, "Liberty is very important for me. So, if I imagine myself inside a cage, I will be totally crazy." This made me wonder - is life in a cage worth living? An Ecuadorian ecologist I interviewed provided a simple possible answer to this question. When I was showing him pictures of Nantar in captivity, he commented on how small the enclosure looks. I agreed with him and said it is a shame she lives in a cage. He replied, "Well, at least she has a life".

Examples presented in this chapter exemplify how human interactions with jaguars in an Amazonian Anthropocene, characterized by care, affect, kinship and conservation, muddy

distinctions between wild and domesticated. The following chapter examines the impact digital jaguars have on conservation and people's social constructions of jaguars.

CHAPTER 6: DIGITAL JAGUARS

I interviewed David, an ecologist who had captured footage of jaguars on camera traps at Sumak Kawsay In Situ, an environmental conservation organisation in Mera, Ecuador located in the upper Amazon. Camera traps are automated devices with sensors which allow the camera to take photos or videos when there is movement. David sent me camera trap photos and videos of what he believes are three sightings of two jaguars first spotted in 2018. One of the videos I watched showed a spotted jaguar walking down a trail covered in a bed of leaves in the jungle during daylight hours. Its tail was swaying from side to side as it walked away. I said, "wow" to myself and I replayed the footage (see Appendix B). This ecologist also shared footage of a jaguar spotted at night, which captured the jaguar walking towards the camera along the same trail. The jaguar's eyes were glowing as it walked. It was eerie but also very impressive (see Appendix B).

These photos and videos allowed me to encounter a "digital jaguar". This digital jaguar is one that is tagged and tracked (Adams 2020; Mathur 2021b). It is not encountered physically in the flesh in Amazonia but digitally through technological means such as camera lenses and shared via social media. The digital jaguars I heard about and discovered provide insight into the jaguars' lives in an Amazonian Anthropocene in Ecuador. Digital jaguars also influence and signify the future of the jaguar species' longevity.

6.1. Entrapping Digital Jaguars

This chapter builds on scholarship in digital anthropology, namely mediation and conservation. Photography and videography mediate time, as these technologies capture a single moment in time. Images may shape people's cognitive and emotional responses to elements of our world (Verma, van der Wal, and Fischer 2015). Miller and Horst (2012); (2020) look at the

materiality of digital anthropology. The digital forms cultural artefacts humans interact with, and arguably the digital, make us reflect on what it means to be human. Horst and Miller (2012) suggest that digital media and digital worlds have led to an increase in mediated experiences and a loss of authentic social interactions. Digital content may create illusions of what the world looked like prior to the digital and in the absence of the digital. Digital content also has an impact on power – what is recognized and prioritised (Horst and Miller 2012).

Producing photos and videos of wildlife and the natural environment mediates multispecies relationships and human knowledge of the non-human (Igoe 2010). Technologies that mediate how humans see animals according to Jørgensen (2014) result in the wild being domesticated on film (p. 484). These images are being "specularized" and are becoming commodities spread by conservation NGOs which are consumed by the general public in order to gain awareness, power, and funds for conservation work (Igoe 2010; Verma, van der Wal, and Fischer 2015). Also, *Chapter 7: Entrapment* of Mathur's (2021b) work explains how visual technologies such as camera traps, smartphones, and security cameras have altered ways of knowing and seeing non-humans. Mathur (2021b) describes that seeing big cats in India in the context of the Anthropocene, includes the physical and digital encounter. Mathur (2021b) discusses conservationists' feelings of joy and excitement when capturing images of a leopard on a camera trap. These same images may also elicit feelings of fear for humans that also walk the same paths as them (Mathur 2021b). Images of big cats captured on smartphones, of people's near physical encounters with big cats may also create feelings of amazement, while images of the leopard's presence such as pug marks or devoured prey may elicit fear (Mathur 2021b). Also, images of killed leopards may create feelings of sadness but also triumph to some (Mathur 2021b).

These feelings and emotions created by images and videos illustrate how digital conservation creates multidimensional and dynamic objects. Lutz and Collins (1991) argue that *National Geographic* photographs, especially those of the non-Westerner, are a site where different types of gazes intersect allowing "viewers of the photo to negotiate a number of different identities both for themselves and for those pictured" (134). Lutz and Collins (1991) present a typology of different gazes, some of which include: 1) the photographer's gaze, 2) an institutional gaze (e.g., magazine's gaze), 3) the reader's gaze, 4) the non-Western subject's gaze and 5) the Westerner's gaze. Similarly, I found the gazes of the photographer, the viewer, the conservationists, conservation organisations, the community and general public intertwined in digital jaguars I was told about and encountered.

The digital animal constructed by gazes, perspectives and feelings is also influenced by power (Schroeder 2018; Simlai and Sandbrook 2021). Conservationist research of wildlife has begun to use cameras for surveillance of nature. According to Simali and Sandbrook (2021), "it is important to consider who controls, benefits from, and pays for these technologies." Conservation technologies such as camera traps and drones often serve the interests of conservation organisations and the scientific community, rather than the local community. During my interviews, I did learn of benefits but also tensions between the community and camera trap projects.

6.2. Monitoring Jaguars Using Camera Traps in Ecuador

Camera traps were introduced in the 1980s and have shifted conservationist research of wildlife to "digital conservation" (Mathur 2021b). Camera traps have made it much easier to monitor populations of threatened or endangered species in landscapes inhospitable for humans. They are relatively inexpensive and less intrusive than other methods of monitoring animals,

such as through remote collars. Though camera traps are a beneficial tool, their location matters significantly. Even then, their success is left up to chance that the animal walks by the exact location of the camera trap. Using camera traps to track wildlife in Ecuador became more common amongst researchers 20 years ago. University researchers such as ecologists and conservation organisations in Ecuador I interviewed used camera traps to track and monitor Amazonian wildlife such as jaguars. Transnational conservation organisations such as World Wide Fund for Nature (WWF) and the Wildlife Conservation Society (WCS) have used camera traps to track jaguar populations in several studies (WWF 2020). WWF (2020) reported that approximately 2,000 jaguars live in the Napo- Putumayo Corridor along the borders of Colombia, Peru and Ecuador, according to camera trap data collected by WWF scientists between 2017-2019. This same camera trap data was also used to estimate the density of medium to large-sized vertebrae, the jaguar's prey, that would live in this area (Mena et al. 2020). WCS Ecuador also conducted a large-scale jaguar census in Ecuador from 2007-2009. Recently, WCS scientists contributed over 120,000 images collected from camera traps, including photos of jaguars, to a study of Amazonian wildlife involving 120 institutions (WCS News Release 2022). WWF and WCS have also funded camera trap studies in Ecuador such as research conducted by Santiago Espinoza, who has found that increased hunting and road development led to the decline of jaguar populations (Espinosa, Celis, and Branch 2018).

Tiputini Biodiversity Research Station (TBS) established by Universidad San Francisco de Quito has conducted camera trap studies in Yasuní National Park for years. I interviewed Adrian, an Ecuadorian ecologist who managed the station's camera trap project. He explained the program:

> "It's basically a program to try to establish some patterns of abundance of ground mammals and birds in a forest that has no disturbances…the idea is to create a

> baseline of information of animals, patterns of abundance, patterns of distribution, behaviour...and see how these patterns change over time. And the goal of the project is to produce scientific information not just to have pictures in the harddrive."

TBS has published scientific papers using camera trap data to provide insight into populations of animals such as monkeys and ocelots in Yasuní National Park which is located northeast of Macas in the Amazonian provinces of Patstaza and Orellana (Mosquera et al. 2016). One of these camera trap studies on jaguar populations suggests that Yasuní National Park may be a jaguar hotspot (Blake et al. 2014). These studies by conservation organisations and scientists illustrate how camera trap data and the digital jaguars they produce have been used to develop scientific knowledge, namely ecological and numerical data which informs knowledge of the species, conservation efforts and conservation organisation agendas.

6.3. Camera Traps and Conservationist Encounters with Digital Jaguars

The digital jaguar allows people to see jaguars "as they really are" (Mathur 2021b, 130). In my discussions with conservationists, it is evident that the ability to capture images of the jaguars living out their "secret lives" has opened up new possibilities of researching and interacting with the wild (Mathur 2021b). The Director of Merazonia, an NGO in Mera, Ecuador close to Sumak In Situ, has said that their use of camera traps has, "opened up a whole world of the jungle… a good healthy wild animal is not showing self easily to a human being. I'm sure we've been close to many different animals in our reserve taking hikes but never seen him." Merazonia's statement illustrates how digital conservation has made wild Amazonian animals and landscapes more accessible. Setting up camera traps allows for surveillance of a wilderness without the physical presence of humans and the instinctive reactions animals may have towards humans.

This statement also conveys that humans and non-human predators share landscapes. Mathur (2021b) writes about how camera trappers she accompanied in India found that a small trail to a lake where people walk is also walked by leopards at different times. This is very similar to what I observed in the camera trap footage sent to me by David at Sumak Kawsay In Situ, which depicted the jaguar walking a trail where humans would walk. In fact, a study by Blake and Mosquera (2014) found that camera traps often logged footage of jaguars walking along trails in Yasuní National Park. Though this data may be fascinating to conservationists, based on my analysis in Chapter 4, not all people perceive wild animals with the same admiration and fascination. Therefore, would people living in close proximity to these trails, walking them at different times than jaguars, share the same excitement about the jaguar's presence? Or would this elicit fear and caution? These critical questions highlight the power of social actors' gazes. My research mainly provides insight into digital jaguar from the perspective of conservationists. However, future research could investigate community perceptions of camera traps and the footage they collect.

As explained in Chapter 3, conservationists' physical encounters with jaguars may elicit visceral emotions. Similarly, when conservationists described their experience capturing and viewing digital jaguars they were also amazed. The Director of Merazonia was very enthusiastic while telling me about the black jaguar the organisation has spotted twice on their camera traps between March 2015 and September 2016 (see Chapter 2). The Director of Merazonia described his reaction when checking one of the camera traps and said:

> I have a very vivid memory of checking one of the trap cameras, in our resort with our Alicia, our coordinator, and volunteers. Normally there's a lot of rats on it, or mice or birds and like sometimes cool cats or mammals at that time… But there was a black jaguar which showed up. And I think Alicia and I kind of looked at each other and danced around like little kids and the volunteers were

> looking at it as like, “are these people sane?”I think there was that enthusiasm for seeing an animal like that return.

David from Sumak Kawsay In Situ also described his reaction to the jaguar footage his camera traps recorded:

> Super exciting… it's just such an incredible animal. One of the videos too, it was like sniffing the camera, which is really cool. Checking the camera out. So I always get really excited. And then to see it again recently, you know, I had been wondering when, when a Jaguar was going to show back up, and then we saw it again recently and that was really exciting.

The reactions of both the Director of Merazonia and David are also evidence of a conservationists’ gaze towards a digital jaguar - as something which is incredible, exciting and rare. The emotionally charged experience of seeing this digital jaguar inspired conservationists to continue research and work related to protecting the jaguar and its habitat. For example, the Director of Merazonia has speculated that this jaguar sighting may be indicative of their organisation’s success in regenerating the forest on their reserve (see Chapter 2). Also, Julia, an Ecuadorian conservationist, described how her experience collecting camera trap data of jaguars at TBS inspired her to continue PhD research about jaguar trafficking. She said, “I was like, I have to work with jaguars. I have to work with big cats.” Conservationists see this footage of digital jaguars as a sign of beauty and Amazonian wildness. Like conservationists' physical encounters with jaguars, this digital jaguar is a type of cultural artefact and commodity which also informs their prerogative to protect the species (Horst and Miller 2012; Igoe 2010; Verma, van der Wal, and Fischer 2015). Encountering the digital jaguar is a safer way to experience the beauty of the animal rather than physically coming face to face with the largest predator in the jungle, however, the digital jaguar has replaced “authentically social” interactions and encounters between conservationists and physical jaguars. Conservationists can see jaguars as “they really are” in the absence of human presence (Mathur 2021b; Horst and Miller 2012).

6.4. Photographed Jaguar

Jaguars are difficult creatures to photograph due to their elusive nature. Photographers seek out the jaguar as a beautiful photo subject but also as a challenge. Jaguar photography tours have become increasingly common, especially in Brazil's Pantanal region. Photographers have built their career photographing big cats. Steve Winter is a world renown big cat photographer, working as a photo-journalist for National Geographic and receiving international recognition for his work (Winter 2023). Winter has taken several photos of jaguars, some of which in Yasuní National Park. In addition to world renowned photographers, I found that conservationists, volunteers and members of local communities took photos of jaguars.

At Los Jaguares Rescue Centre, volunteers, staff, visitors, and I took several photos of the three jaguars in captivity. Before the volunteers and I would feed the jaguars, I remember Phillippe, a volunteer from France, would go and get his DSLR camera to take photos of the event. Once we dispersed the meat in the jaguar's enclosure, the volunteers would wait right by the cage for the jaguars to be released and sent to find their food. It was possible to get beautiful photos of Nantar, Wagus and Yoana through the enclosure if the camera lens was positioned correctly. Volunteers and visitors who took these photos would often post them on social media. Santiago also showed me several photos he had taken over the years of the baby jaguars as they grew up.

As professional photographers, volunteers and tourists can attest, it can be challenging and dangerous to capture photos of jaguars. At Los Jaguares Rescue Centre, taking photos of the jaguars involved being very close to the enclosure which also came with risks. Everyone always stood much closer to the enclosure than the recommended distance of at least one metre according to the signs posted at the centre, meaning we had to be very careful and aware of our

surroundings, just in case the jaguars tried to paw at us through the cage grate. One time, when Philippe was taking photos on the left side of the jaguar's enclosure, a jaguar unexpectedly ran towards him from the right side and came up very quickly against the cage, startling us both. I also remember during my very first day at the rescue centre myself, Santiago and the volunteers were taking photos close to the enclosure as the jaguars were playing. Suddenly, one of their gazes met ours, Santiago shouted "take care!" and they leaped right at us, sticking a paw through the cage close to where we were standing.

These examples indicate how the photographer experiences both the physical and digital encounter with a jaguar while trying to capture images of the feline. Essentially, the photographer's process of producing a digital jaguar is informed by their own gaze, in this case, the beauty and exotic nature of the animal along with the quality of the image. Unlike camera traps, photographers experience the physical "wild" nature of the feline predator. Although the jaguars at Los Jaguares Rescue Centre are "semi-wild" (see Chapter 5), the volunteers who took photos (including me) were able to do so with the comfort and ease of knowing they were in captivity, yet we also had to be cautious of their wild predator behaviour as they may try to paw at us through the cage. The digital jaguars created at Los Jaguares Rescue Centre often depict Nantar, Yoana, and Wagus sitting in the grass, their bed, or atop a raised ledge. The fence of the enclosure is always visible in these images. These digital jaguars are cultural artefacts representing semi-wild conditions and conditions of the Anthropocene. Through experiencing the wild and domesticated qualities of the jaguar, the photographer produces an image of a jaguar in captivity displaying the exotic beauty of the species.

Photos taken also highlight local people's fear of the jaguar. Adrian, an Ecuadorian ecologist, said that he has taken photos of jaguars which have been killed, "Yeah, the

Indigenous. They kill them. I've seen the bodies of the jaguars. Once I took pictures. They killed a jaguar and then they skinned it. I took pictures and then I filed a police report. Obviously, nothing happened." In this case, the digital jaguar captured depicts the violence humans can display towards wild animals and therefore a destructive Amazonian Anthropocene. These versions of digital jaguars were also used as evidence to hopefully hold those who killed the jaguars accountable. Although this image of a deceased digital jaguar does not overtly convey the poacher's perception of the jaguar and motivation to kill it.

Adrian also showed me a photo he saw on social media the day of our interview. It was of two people in Pastaza province standing while holding a dead jaguar in the forest. In this case, the digital jaguar produced is one characterised by people's fear but also triumph by being able to successfully kill the predator. This digital jaguar does not have the same "wild" and "exotic" characteristics as ones taken on camera traps, conservationists and volunteers, but is evidence of human mastery over wild animals in the context of the Anthropocene.

6.5. Camera Traps and Local Communities

Several of the researchers I interviewed explained that their camera trap studies involve collaboration with communities living in the area. Local community knowledge is invaluable as they know the landscape well along with possible sightings of the species (Mathur 2021b). In fact, WWF has located and set up camera traps to monitor jaguars in countries such as Mexico, Colombia, Peru and Ecuador with local communities. My participants described how in Ecuador WWF hires local monitors. They are given payments to help monitor jaguars to set the camera traps, monitor them over time and then collect them. In this case, both local communities and conservationists work on this conservation project to capture the digital jaguar in its natural

environment. As these projects serve the interests of scientific knowledge and conservation agendas, does this data contribute to the knowledge of local communities?

The conservationists I interviewed said they also prioritise sharing camera trap footage of jaguars with the public. WWF has begun to include camera trap photos of jaguars in environmental education programs for young children near the Cuyabeno Wildlife Reserve in Ecuador. Also, David, at Sumak Kawsay In Situ, said that their organisation tries to share the camera trap data with as many people as possible. David said it, “is always a really cool thing that connects with people I think is kind of this humanising experience for them in that way to just see that animal out doing its thing, and people are always really excited to see the images”. According to David’s remarks, the digital jaguar makes the species more tangible for the general public and allows for more people to experience the exoticism of the animal.

The digital jaguar captured on camera traps does provide a different perspective of the feline that people may have not been previously acquainted with. Adrian, an Ecuadorian ecologist, described a heartwarming occurrence when he showed a video of a jaguar taken on one of his camera traps to a child. He said:

> I put the video on my phone, my iPod at the time. And I was sitting in a community near Tiputini Station. I was looking at the video, and then this little kid came and saw the video and I was like, he was like, "wooooooow". And I saw his face. And I was like, “Have you ever seen one of these?” And he was like, "no, just one that my father killed". He had never seen a jaguar in the wild.

According to Adrian and this boy’s reaction, the boy encountered a “wild” jaguar for the first time through seeing the digital jaguar in the footage. As the boy saw a jaguar previously killed by his father, it also illustrates what perceptions of the feline the boy may be raised with. Seeing the digital jaguar in the Amazon captured by conservationists exposed the boy to a completely different “gaze” or worldview.

The boy's reaction inspired Adrian to start a crowdfunding campaign to raise funds for the purchase of camera traps that can also record videos. He made other videos of the Amazon and was even invited to speak to people in the city about the jungle. He said, "a lot of people I think realised that the jungle is not like, you know, we inhale with mosquitoes - there's much more than that." In this case, the digital jaguar can transcend its Amazonian habitat and be encountered by those living in cities in Ecuador and other countries. When shared with the public, this digital jaguar, this cultural artefact can be used as a commodity to inspire local communities to care for and protect the jaguar's future.

These new visual technologies used by conservationists also pose legal and ethical challenges. While setting up camera traps deep in the forest may pose minimal security and theft risks, setting up camera traps in landscapes with higher human populations may be a source of tension (Mathur 2021b). The movement or "secret life" of humans captured on these cameras while trying to track non-humans presents questions of privacy in surveillance (Mathur 2021b; Simlai and Sandbrook 2021). Sharma et al. (2020) propose an ethical code of conduct to manage privacy concerns and legal rights of those individuals' images captured on camera traps. Though my informants mainly explained their collaboration with local communities on camera trap projects, JAPU, an environmental conservation organisation on the coast of Ecuador, explained mysterious destruction to their camera traps. One of the co-founders of JAPU said:

> Well, so far, mostly positive. We haven't had any reaction so far, however… for example, one of our camera traps were burned, literally completely burned. So when we are there, we just see the ashes of a camera. Obviously, it wasn't an animal. And also, some of our cameras has been stolen. Twice, we found the memory cards for the information, completely scratched inside the camera so someone took the time to take it out first, scratch it so we can't get the information and then put them back.

Between August 2022 and April 2023, JAPU reported that their camera traps were damaged or destroyed three more times. Not only the memory cards were destroyed, but also the infrared sensors were tampered with as well. One of the co-founders of JAPU said that illegal hunters in this area are common, as their camera traps have previously captured footage of poachers with shotguns. JAPU's destroyed camera traps illustrate ethical concerns of surveillance. While collecting footage of animals' lives may not require consent, humans expect a degree of privacy. During camera trap studies there is an inequality in gazes and power, as conservationists and researchers may see the activities and movements of local communities who have not consented to being recorded.

When I asked Adrian who worked at TBS if any camera traps had been stolen or destroyed by people during his studies, he said that this has only ever happened once because the station is far away from people. He said that people may destroy the cameras to hide illegal activity, but also steal the camera equipment to try and use themselves or to sell. In order to prevent theft or vandalism, he has seen researchers place metal cases over camera traps or leave notes to explain that the camera will be useless if stolen. Some researchers have even left messages stating that the camera trap has a GPS and can be tracked, although according to Adrian this is a lie. In addition to surveillance tensions between conservationists and the community, this theft could also be indicative of economic inequality and challenges.

Digital jaguars are produced by a multitude of gazes, but my research has shown that raw images of jaguars living out their "secret lives" in the wild are valued. This notion of the digital jaguar is relevant to the next chapter where I discuss the commodification and charismatic framing of jaguars in Ecuador.

CHAPTER 7: THE CHARISMATIC JAGUAR

While I was speaking to a Shuar Elder, my translator's father, the necklace he was wearing caught my eye. It had a long clear crystal in the centre and two large fang-like teeth on either side. Towards the end of our interview, I asked the Elder if his necklace has any special meaning. He said, "What I carry on my chest has minerals. In my visions the jaguar told me he had many resources and that would help me to protect them." I then asked the Elder where he had gotten the necklace. He said, "This is from an older jaguar that killed calves. The Shuar only found his skull with the teeth and then they took them out and sold them. So I bought it and that's how it came into my hands…This occurred 19 years ago."

The Elder's answer complicates perceptions of the jaguar as a threat, an important figure in cosmology, a species worth protecting and a commodity (see Chapter 3). The jaguar is an appealing, powerful, and charismatic figure to Shuar individuals, as a species that should be protected, but also as a species whose physical parts have spiritual, cultural, and economic importance. While conservation protects the life of the feline, hunting jaguars for their skin and teeth threaten the actual life of the jaguar. The death of the jaguar is justifiable according to the Elder's explanation because the jaguar threatened human raised cattle. The reason the jaguar was killed also makes the Elder's use of the teeth reasonable, as they are cosmologically powerful in informing the perception and view of the Elder. Through understanding the social histories, multispecies entanglements and perceptions of the jaguar, it is evident that the jaguar's charismatic qualities play a role in humans "making" them into commodities for cultural and economic gain. This chapter will examine the different roles of the charismatic jaguar in an Amazonian Anthropocene.

7.1. Charismatic Species and Commodification of the Jaguar

Jaguars are considered "charismatic" species. Charismatic species are attractive, charming, exotic non-humans that humans may feel drawn towards or connected to. Snow leopards, popular safari animals on the African continent and orangutans are some examples of charismatic species (Di Minin et al. 2013; Hussain 2019; Kontoleon and Swanson 2003; Parreñas 2018). These species may be thought of as "persons" to the general public, which bring the lives and human relationships with the species to the forefront of human understanding and priority (Carrithers, Bracken, and Emery 2011). The attraction and fascination with these species means that humans understand "being with" them (Carrithers, Bracken, and Emery 2011). Issues facing charismatic species gain the most attention, research, and funding in conservation (Hussain 2019). In the context of conservation in Ecuador, jaguars are a charismatic species used to gain the attention and concern of communities and donors.

The charismatic qualities of the jaguar have been commodified in an Amazonian Anthropocene due to the expansion of capitalism. Capitalism is believed to be the major global system causing the death and destruction of non-human life in the Anthropocene. Throughout human history, humans have created wealth by turning humans and non-humans into resources for investment, or commodities (Tsing 2015, 4). Anna Tsing's (2015) book *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* is relevant to contextualising this commodification of the jaguar. Tsing's (2015) work follows the multispecies assemblages, lifeways, and supply chain of the matsutake mushroom through capitalist systems across countries and continents. Tsing (2015) explains that non-humans have been given capitalist value through the process of "salvage accumulation". Non-human raw materials such as oil, timber and cow's milk are used in capitalist production. Capitalists cannot "make" raw materials and most

of their resources, but they accumulate materials (non-humans) that have multispecies entanglements outside of capitalist systems and convert them into capitalist wealth. I found that "salvage accumulation" is taking place as the jaguar enters capitalist markets, including illegal jaguar trafficking, conservation campaigns and ecotourism experiences.

Tsing (2015) also discusses three natures which are relevant to the commodification of the charismatic jaguar; two of which have been inspired by Cronon (1995). The first nature refers to ecological relations between humans and non-humans, while the second nature, "refers to capitalist transformations of the environment" (Tsing 2015, viii). Tsing (2015) proposes a "Third nature", which includes what lives on despite capitalism, where there is more than one future possible. The different roles of the charismatic jaguar illustrate how there are several possible futures for the jaguar in an Amazonian Anthropocene.

7.2. Trafficking Jaguar Parts and Trade

On September 24th, 2022, I visited the Sucúa Botanical Park with two volunteers and Santiago. There was also a small, curated museum open to visitors at the park, where I noticed a jaguar skin spread out and hung on the wall above a description of the jaguar, "Panthera onca" species. Nearby, Santiago and I saw a jaguar's skull and teeth on display. The museum was empty that day, and Santiago was not sure where they had obtained the jaguar parts. I began to wonder - was the jaguar killed because it was a threat? Was the jaguar killed for its skin? Did someone find a dead jaguar and decide to preserve and sell its body parts?

The trade of jaguar parts is continuing to expand internationally, despite being illegal in many countries such as Ecuador. Interested buyers online can purchase jaguar teeth, heads and skin from countries across Latin America, especially countries such as Mexico, Brazil and Peru (Radwin 2023). A report published in 2021 by the Convention on the International Trade of

Endangered Species (CITIES) focused on the illegal trade of the *Panthera Onca* across the Americas (Arias 2021). Recently, in 2022 a preliminary report was released outlining the criminal networks behind jaguar trafficking in countries such as Bolivia, Suriname, Peru and Ecuador (Crosta et al. 2022). This report provides some of the first significant research done on the trafficking of jaguar body parts in Ecuador.

One of the factors motivating the illegal trafficking of jaguar parts is the demand from China. Jaguar skin, teeth, fangs, and heads in China are sought for decorative, fashion, and medicinal uses (Branford 2020). In China, the jaguar is sometimes referred to as the "American Tiger", prompting people to believe that the demand of jaguar parts in Asia was going to substitute that of tiger parts. Selling jaguar parts in China is profitable, as the report stated that, "The price of jaguar fangs in China (but sold as tiger fangs) is up to ten times the price paid in South America." (Crosta et al. 2022, 5). My informants reiterated this demand for jaguar parts in Asia. For example, el Doc said, "there are jaguar skin dealers who can get paid a lot of money and also in Peru there are many dealers, including some of Chinese origin, who pay a lot of money for the fangs or for the skin of the jaguar." However, the demand from Asia and actors of Asian descent are only a few of the actors and drivers of the illegal jaguar trade. Previous studies have shown that local and European actors play a role. Media discourse has distorted numbers and types of items seized along with from whom, illustrating the concern and interest of the state and general public (Arias et al. 2021; Li et al. 2022).

Trafficking of jaguar parts is illustrative of a second nature. Those living close to the "raw" material (the jaguar), struggling economically, kill, and export jaguar skins to wealthy consumers, thereby commodifying the jaguar. The commodity is then valued and sold for higher

than its initial cost abroad, sometimes imitating the charismatic qualities of other species such as tigers, allowing the seller to make a profit.

7.3. Trading Jaguar Parts for Arms

A few of the Shuar informants I spoke to explained how members of their community and family would hunt and trade jaguar parts for weapons and supplies. A Shuar Elder explained the circumstances in which he believes the Shuar began hunting jaguars:

> In the physical realm, the Shuar respect the space of the jaguar. With the arrival of colonisation, the behaviour between the Shuar and the jaguar changed, because the colonisers needed the jaguar skin to make shoes and for other uses. Then the Shuar, incited by the colonisers, began to kill jaguars of all races to exchange their skin for clothing, weapons such as machetes, and money. From that moment on, the minds of the Shuar were contaminated with the idea of hunting the jaguar.

In this case, the Elder explains that the "salvage accumulation" of jaguar parts and changing worldview of the Shuar occurred is intertwined in a complex history of indigeneity and colonisation. This created a second nature, as colonisers desired the jaguar for their own use, assigning it capitalist value. They also sought hunters to harvest this "raw" material - jaguars. In order for the Shuar to defend their livelihoods they participated in this system and exchanged the jaguar parts for arms to fight.

My informants also note how the Shuar would exchange jaguar parts in Peru for weapons. A Shuar informant was explaining factors leading to jaguar cubs being kept as pets and said, "Normally, this happens when the Shuar killed the mother jaguar to sell the skin or exchange it for guns and ammunition in Perú. Once the mother is dead, the people catch the babies and take them to their homes." While mother jaguars' lives are lost, their skin, and parts are used by hunters to gain tools to defend themselves and assert their dominance to end non-human lives through hunting or human lives in armed conflict. However, the jaguar cubs that may be left behind and taken by humans, as mentioned by this informant, live in conditions

characterised by domestication. Therefore, the commodification of jaguar parts has an impact on the wild lives of jaguars in the Amazon.

In addition, a Shuar informant who also runs a conservation project called “Proyecto Selva Vida”, explained how the Shuar in the eastern Amazon of Ecuador would hunt animals and sell jaguar parts in exchange for money:

> In 1965 and until the 70s, the skin of the jaguar became highly valued. When I was a child, my father used to hunt ocelots, jaguars, peccary, among other animals, because they could be sold very well in Peru. So, people began to over hunt jaguars and barter. With the jaguar skin you could buy a new rifle or carbine. So, people began to hunt to exchange the skin for weapons. Later, the government enacted a law to prohibit hunting in the jungle.

Similar to the last example, this statement illustrates how salvage accumulation has led to a demand for jaguar parts and desire to trade them for money and weapons. However, this market expanded to the point where the species was being over hunted, which prompted the Ecuadorian government to prohibit trafficking of wildlife parts and hunting of wild animals such as jaguars. Considering what the Shuar Elder said previously, this commodification of the jaguar also coincides with a change in the Shuar lifestyle and manner of relating to jaguars. Rather than living in distant proximity to a predator and expressing cosmological reverence for the animal, the Shuar began seeking the animal to develop commodities and seek profit.

Both Shuar and conservationists recognize that using jaguar teeth and skin for Indigenous rituals and wearing them for spiritual reasons is connected to the death and hunting of the species. One of my Shuar informants said:

> When the Shuar community sees a jaguar, the first thing that comes to their mind is how to use his skin and teeth. The indigenous leaders consider that dressing in the skin of the jaguar and wearing their teeth gives them courage and makes the rest of the people feel admiration and respect towards them. For that reason, when they see a jaguar they hunt it.

The cosmological power an Indigenous leader gains from wearing jaguar parts, as explained in the case of the Elder at the beginning of this chapter, illustrate how jaguar parts serve human power, interests and mastery over nature. Jaguar parts may be traded as a valuable commodity, but also worn to obtain power and respect in life and in a community setting. These examples show how humans are using jaguars to serve cultural projects within capitalist systems and cosmological beliefs.

7.4. Are These Teeth Fake?

The examples I have included demonstrate how jaguar teeth, skin and skulls are desirable items for many people. This has prompted individuals to sell teeth mis-labelled as jaguar teeth in stores and markets, similar to how jaguar teeth have been sold as tiger teeth in Asia. When visiting Cascadas Kinki Panki in Sucúa (see chapter 3) I walked through the tables and stalls with goods on display and saw several animal parts, either being sold individually or incorporated into handicrafts. Some items included teeth, which were labelled as jaguar teeth. However, while I was observing these crafts, Santiago appeared doubtful and said to me "these don't look like jaguar teeth." Though I did not have enough professional experience and relevant knowledge to judge this myself, I did see the skin of an ocelot which the man was selling as jaguar skin. This mislabelling is not uncommon and there are several reasons as to why it may occur. In the case of the ocelot skin, I pondered the fact that possibly to this man, the ocelot's skin is a type of jaguar skin, according to his beliefs or the way he defined the animal as a type of *tigre* or *yawa* (see Chapter 2). Although this mislabelling is not always done accidentally. Julia, an Ecuadorian conservationist, described a time when a substantial amount of animal teeth were seized in Bolivia:

> They were all initially labelled as jaguar teeth. But then after some other analysis, they found that it was actually puma teeth. You cannot know for sure unless you

> did some kind of DNA testing. So there's definitely some room for mislabeling. People sometimes do this by accident, but also intentionally, so then they try to sell it as that.

This example from Bolivia proposes that jaguar skins, teeth and skulls are more desirable due to their charismatic qualities. This is why sellers may mis-label the product, such as the teeth, in order to gain more profit. As the illegal jaguar trade emerges, a "phoney" market also emerges to imitate the charismatic qualities and power of the jaguar.

7.5. The Jaguar as a Symbol of Conservation Work

Several conservation marketing strategies and campaigns have used the jaguar as their prominent symbol. For example, Jaguar Parade Global hosts an annual open air art exhibit where artists paint and design blank jaguar statues which are auctioned in order to raise money for jaguar conservation efforts globally. The Pacari Chocolate Company has also partnered with WWF to share profits from their products towards WWF's jaguar conservation efforts. An Ecuadorian conservation scientist with firsthand knowledge of this partnership said, "they use jaguars and other wildlife as a marketing strategy. But then those funds go into the communities where we work on jaguars and other species". In both examples, the jaguar is commodified in order to raise funds for its protection.

The jaguar has also become the symbol of conservation organisations, rescue centres and zoos. For example, the environmental conservation organisation "JAPU" based in Guayaquil, derives the first half of its name from jaguar "JA" and the later part of its name from the puma "PU". The organisation's logo also contains a feline in dark blue which is representative of their conservation efforts and research for these two big cat species. Secondly, Amaru Bioparque Zoo in Cuenca, where two of Amaru and Nantar's offspring live (see Chapter 5), not only shares the name of a rescued jaguar but has also incorporated the jaguar into its symbol. Lastly, Los

Jaguares Rescue Centre very clearly uses the jaguar as a symbol of its animal rescue efforts and impact. These examples illustrate how the charismatic jaguar has become a symbol for the protection of Amazonian animals and their wildness.

7.6. Jaguar (Eco)tourism

Although there are cultural, social and environmental implications to ecotourism in Amazonia (see Davidov 2013) some of the conservationists I interviewed suggested that jaguar ecotourism should be established in Ecuador. Brazil's Pantanal contains the highest population of jaguars in South America, and it has been cited as a jaguar tourism success story. In Brazil's Pantanal, working as a jaguar tourism guide is now more profitable than cattle ranching (Brown 2023). A few conservationists I interviewed explained the potential benefits of jaguar tourism if it were to be introduced to their area. El Doc explained the details of a reforestation project he is working on in Sangay National Park which would connect two biological corridors and re-establish healthy ecosystems for all wildlife (see Chapter 2). El Doc explained this would be a great location for tourists to learn about the jaguar's habitat. He said:

> The idea is to create awareness and spaces so that the natives can survive not from hunting, but from farming and being guides for national or foreign tourists who wish to walk the trails where the jaguar passes, see their footprints, see the forest and the landscapes of our jungle. There will also be trails that tourists can walk to learn about the culture and learn about nature and the environment…In this way we can promote ecotourism, scientific tourism and adventure tourism.

El Doc's explanation suggests that tourists experiencing near encounters with jaguars, while learning about the Shuar culture and environment would be a marketable expedition. The jaguar is the symbol and incentive for this jungle excursion. There are implications to commodifying the jaguar's habitat, because although this form of ecotourism could reap benefits, it could be at the expense of changing the livelihoods of those sharing the jaguar's habitat in the first place. One of the co-founders of JAPU also considered the benefits of jaguar tourism and

said, “So why don't we think about jaguar tourism, in South America, in Ecuador, in other areas, to leave these animals to live their life in natural areas, and we can observe from outside how nature is.” This comment premised on human exceptionalism suggests that humans observing animals is also a marketable ecotourism venture. These suggestions are examples of a “third nature” (Tsing 2015) in an Amazonian Anthropocene, where humans simultaneously live with, and use (consume) and protect Amazonian landscapes and animals.

Anthony, the Animal Care Studies student from Italy (see Chapter 5) explained why he believes the jaguar must be commodified in order for the species to exist in the future. He said, “if jaguars are not economically valuable for the people that are living with jaguars, if they're not seen as an economic opportunity, they will never be conserved. They will always one be an obstacle or like a source of economical loss.” Anthony’s statement illustrates why the jaguar has been commodified literally and as a symbol, but also what the implications are if it is not valued in the context of capitalism. Is a third nature in the Anthropocene possible if the jaguar cannot exist outside of capitalism?

7.7. Responsible Tourism

Santiago said that the rescue centre’s business model is based on “ecotourism” and “responsible tourism”. Santiago said, “Responsible tourism happens when we don't have a lot of people, like its not massive tourism like a hotel. People who come here share with the communities physically and socially but also economically. We try to do a circular economy.” Santiago also explained how the rescue centre welcomes visitors to take a tour of the centre daily, although their main priority is attracting volunteers. The rescue centre accommodates volunteers in modest but sustainable housing and provides them three meals a day at an affordable price. The volunteers not only provide economic benefits to the centre, as they also

help care for Amazonian wildlife and maintain the rescue centre grounds. This rescue centre is part of a growing volunteer tourism industry focused on caring for threatened wildlife. Santiago also explained that the volunteers visiting are mainly foreigners, and that national citizens do not have the same interest or sometimes economic ability to travel and volunteer. Essentially, when these rescue centres and rehabilitation centres introduce their conservation projects into the world of capitalism, they gain more economic and physical support.

I did see one time where el Doc and Santiago swayed away from Los Jaguares Rescue Centre's operational model. The centre provided accommodation to a group of 20 tourists from Italy on September 24th, 2022. These tourists were looking for an authentic Amazonian experience, and Santiago and el Doc allowed the group to pay for a night's stay without volunteering. Santiago was enthusiastic about the group's visit, as it would give the centre exposure and some extra income which is always needed. On the day of the tourists' arrival, Santiago instructed the two volunteers and I to hold off on feeding the puma and the jaguars because he thought that watching the felines eat would be an entertaining show for the tourists. That day the volunteers and I listened to Santiago's request, and only fed the smaller animals. The tourists were supposed to arrive in the afternoon, but they were late and arrived at 5pm. We were finally able to feed the felines although at dusk. This was a much later time than we would have usually fed the felines, and I began to wonder if the jaguars and puma would notice the change in schedule. Entering the enclosures at this time (see Chapter 5) felt a bit eerie. I recorded the experience and reaction of the tourists in my fieldnotes:

> The tourists were able to see Shiram the puma eat, and then we went to feed the jaguars and it was almost dark. Once we hid the food and we were going to open the gate for them to enter, Nantar started climbing the cage near us before Santiago could completely open the door. The tourists, "ohhed" and "ahhhed" and a guy near me said "wow they are beautiful" in Spanish.

This situation demonstrates how the care of the jaguars may be compromised or altered when prioritising the needs and wants of tourists at the rescue centre. Nantar's actions illustrated how the jaguars were anxious and hungry at the expense of entertaining paying tourists. The jaguars are part of the experience purchased by the visitors who are staying at the centre, and feeding the jaguars late is driven by the rescue centre's need for funding. Humans use non-humans, in this case, those whose agency and independence is impacted by conditions of captivity, to market the wildness and uniqueness of Amazonian animals to Global North tourists.

Towards the end of my stay in Macas, I had the opportunity to see the charismatic conservation jaguar's impact on several young children. On September 27th and 28th 2023 myself, two volunteers from Los Jaguares Rescue Centre and Santiago conducted a 45-minute environmental education workshop for Junior and Senior kindergarten classes at Escuelita Dolores Ventimilla in downtown Macas (see Appendix E). After we taught the students about jaguars, we asked them to act like a jaguar. They wore jaguar masks, started to roar, crawl very quietly and sneakily while clawing at the air as if they had paws. In an activity called, "The Los Jaguares Rescue Centre Jungle Story", we used a velcro board with removable animal, plant, and flower pieces to teach students about the impact of deforestation on an Amazonian ecosystem. When we started to remove animals from the board when deforestation occurred in the story, the students gasped and felt sad. Before leaving the class, we asked the students if they learned something new about Amazon, and they screamed "Yes!" When we asked students if they wanted to protect the Amazon, they shouted "Yes!" The students' parents watching the end of the workshop smiled. One of the volunteers said the parents look happy and very appreciative. The jaguar inspired the children, while the children's fascination and impersonation of jaguars made me feel inspired and hopeful for the Amazon's future.

CHAPTER 8: DISCUSSION AND CONCLUSION

8.1. Shuar

The Shuar individuals I interviewed recognize the jaguar as a "King of the jungle". Jaguars are powerful figures in Shuar cosmology and perspectivism as they often contain the powerful spirit *arutam* which is sought during rituals, such as the waterfall ritual I participated in at Kiniti Panki. During the liminal phase of these rituals the individual often experiences affect when seeking *arutam*. However, physical encounters with the jaguar are characterised by fear, as evident in the stories recalled by my translator and Buena Esperanza community members. This fear is mainly due to the jaguar's powerful traits as a predator, and the jaguar's tendency to attack dogs and cattle, rather than actual occurrences of "man-eating" jaguars. This fear may also result in retaliatory killing of jaguars. Interestingly, the Shuar will pursue and hunt the animal they fear to garner economic compensation or cosmologically important commodities. For example, Rosa, a farmer I interviewed, explained how Shuar have been hired to hunt down the jaguar killing their cattle (see Chapter 4). Likewise, the Shuar would hunt jaguars for their skin and teeth to use in rituals or trade for weaponry (see Chapters 3,7).

Several Shuar informants also expressed support for jaguar conservation efforts. Participation in conservation efforts for the Shuar may result in several benefits such as protection of cosmologically important species, financial compensation, and protection of ecosystems they rely on for hunting. The Shuar also expressed that regaining management of ancestral lands would protect the jaguar and result in less ecosystem degradation caused by extractive industries. However, these conservation efforts and the subject formation of the Shuar into conservationists has implications. Territorialization of jaguar habitats by creating protected areas and hunting zones also affect the multispecies relationships with species the Shuar rely on

for sustenance (see Chapter 2 and 3). Camera trap projects that surveillance jaguars may infringe on the privacy of people living in these habitats (see Chapter 6). These perceptions of the Shuar and their constructions of the jaguar should be considered in environmental/ jaguar conservation activities designed and implemented by the government or NGOs.

Due to the research time constraints of a Masters dissertation, I was unable to interview several Shuar individuals in Morona-Santiago province. Future research may focus on gathering more narratives and ethnographic material from the Shuar in Morona-Santiago province, to better understand connections between the jaguar, affect theory, and their cosmology. Studies should focus on how the Shuar regaining ancestral lands in Morona Santiago province affects multispecies relationships with the jaguar. Furthermore, the Shuar individuals I spoke to had rarely participated in a jaguar specific conservation initiative themselves or knew of a Shuar community that had. This may be due to my sample size of Shuar informants, however, conservation projects specifically focusing on the jaguar were not active or well known in Morona-Santiago where I conducted fieldwork. Rather, during interviews with informants at WCS Ecuador I learned they would be starting jaguar conservation projects in Morona-Santiago in January 2023. Thus, examining Shuar individuals' experiences working with conservationists or jaguar conservation may of interest once this initiative has begun.

8.2. Farmers

The jaguar is the non-human other which has been subjected to beastly identification by farmers, conveyed through beastly tales, such as those told by Carlos, Rosa, and Maria from La Quinta Coopertiva (See Chapter 4). The farmers did not express fear towards the jaguar, but they perceived it as a nuisance and as a threat to their livestock. Beastly identification characterising the jaguar as the perpetrator takes place as the farmers identify pawprints and teeth marks left on

the carcases of livestock. The farmers' beastly tales convey the challenges and grievances, as their laborious care relationships protecting the life of their cattle are destroyed by the attack of a vicious and wild predator.

These beastly tales and the human-wildlife conflict experienced by these farmers illustrate the complexities of an Amazonian Anthropocene. Although no one has seen the jaguar attack, the jaguar is a scapegoat as it is a well-known top predator in the Amazon. Secondly, jaguars attack cattle due to a lack of endemic prey, which is caused by climate change and deforestation occurring in the Anthropocene on a planetary scale. Although these farmers rely on agricultural activities to support their livelihoods, agriculture is also a key factor contributing to deforestation of Amazonian ecosystems where jaguars live. Jaguars may threaten the livelihoods of these farmers, but they are a valued species by conservation organisations and the government, as their farms are located 6 kilometres from Sangay National Park. Due to lack of government assistance, farmers often rely on environmentally destructive means to deter the jaguar themselves, such as by burning rubber tires and dispersing chemicals. Farmers have even hired Shuar individuals to hunt down and kill the supposed jaguar attacking their cattle. Territorialization as a conservation strategy in this case plays a role in the farmers' and Shuar's relationship with the jaguar as an animal that should be killed.

My interviews with these farmers and my visit to La Quinta Cooperativa provided ethnographically rich accounts. However, conducting a multispecies study interviewing more farmers in this community, in the vicinity of Sangay National Park or Morona-Santiago province, would provide an in-depth understanding of farmers' concerns and perceptions of jaguars and predators. This ethnographic material may also provide insight into the implications

of territorialization on farmers' livelihoods, what assistance farmers need, and the impact of jaguar deterrence measures on the environment.

8.3. Conservationists

Several conservationists and ecologists also experienced affective encounters with physical jaguars. For conservationists, staring into the physical jaguar's eyes was powerful, mesmerising, and inspirational (Chapter 3). It did not elicit fear, as although the jaguar is a top predator, conservationists and ecologists claimed jaguars are afraid of humans and flee in their presence (Chapter 4). The "digital jaguars" produced by conservationist and ecologists create feelings of excitement and wonder; they convey exoticism and wildness (Chapter 6). They serve the interests of conservation organisations as the raw images of jaguars living out their "secret lives" in the wild are valued and consumed by the public, inspiring concern for the feline and its disappearing environment (Chapter 6). My research mainly provides insight into digital jaguar from the perspective of conservationists. However, future research could investigate community perceptions of camera traps, their participation in camera trap projects, and the footage they collect. This future research would likely provide more detailed accounts of privacy concerns arising from camera trap studies which were noted by the conservationists I did interview.

I spoke to several ecologists and conservationists associated with local and transnational organisations working on environmental conservation related to the jaguar or jaguar specific projects. Conservationists described jaguars as apex predators, umbrella, and landscape species which uphold "ecosystem functionality" and the multispecies assemblages, such as food chains, that we rely on (Chapter 2). Conservationists recognize that the Anthropocene is mainly to blame for destruction of jaguar habitats. Foucault's concepts of power are evident in ecologically based conservation interventions described by conservationists, such as funding efforts in charismatic

landscapes, restoring a biological corridor, and territorializing land through protected areas and "hunting" zones (Chapter 2). For conservationists, territorialization is positive conservation strategy because it can ensure existence of the jaguar in the Anthropocene. Conservationists also conveyed perceptions of social actors affected by the jaguar and conservation efforts. Conservationists recognize the cosmological importance of the jaguar to Indigenous populations such as the Shuar. However, conservationists perceive Amazonian communities as threats to the species' future. Several conservationists claimed that Indigenous communities overhunt, and that people who kill the jaguar out of fear or kill the jaguar to sell/trade jaguar body parts threaten jaguar populations (see Chapters 2,7). Due to the scope and number of interviews conducted during this study, future research should examine the impact of conservation strategies on multispecies relationships which implicate the jaguar. For example, investigating perceptions of jaguars held by people living in the vicinity of Sangay National Park and the perceptions national park rangers have of jaguars would build on the research presented in this dissertation.

The activities of el Doc and volunteer conservationists at Los Jaguares Rescue Centre also contribute to literature on multispecies relationships in captivity. El Doc supports ecological conservation initiatives, such as through his restoration of the biological corridor (see Chapters 2 and 7). The rescue centre he has founded, which uses the jaguar as its charismatic logo, is a semi-wild ecotourism conservation project. However, el Doc's encounters with jaguars differ from many conservationists and the volunteers I interviewed, as it was predicated on long term interaction and care. El Doc's care for jaguars through the act of rescuing and raising jaguar cubs are illustrative of affect and kinship, demonstrating the value of a multispecies approach in understanding human and non-human interactions.

Volunteers at the centre are representative of an emerging affective volunteer economy in an Amazonian Anthropocene. Volunteers who shared their stories of physically seeing the semi-wild jaguars, Nantar, Yoana and Wagus for the first time expressed similar sentiments to conservationists who had seen jaguars in the wild. Volunteers may have experienced fleeting moments of affect but also fearful encounters. The jaguar's wildness may be domesticated as the animal is in captivity and is thereby reliant on human care, however, they still displayed wild predator instincts. Nantar, Yoana and Wayus would claw through the enclosure when volunteers were close by, such as during feeding enrichment and when volunteers were taking photos (see Chapters 3-6).

The physical jaguars' role in conservation is evident at Los Jaguares Rescue Centre. These felines were partially domesticated as they were rescued and cared for in a confined enclosure, but they displayed their wildness by demonstrating predator behaviour towards humans – showing distaste towards humans that would get too close to their enclosure. However, care relationships were developed between the semi-wild jaguars and el Doc who had rescued the jaguars and volunteers who cared for the jaguars, such as by feeding them. In the context of conservation, Los Jaguares Rescue centre illustrates how worlds of domestication and wildness collide in an Amazonian Anthropocene.

8.4. Contributions of this Study

My research has contributed to literature on human-jaguar interactions in Ecuador and multispecies ethnography. My work illuminates people's experiences with an alive predator, the jaguar, a species whose wildness cannot easily be tamed. Several multispecies studies examine how people dominate non-human species that humans are in contact with, such as dogs, bacteria, birds, or felines which attack humans and roam urban areas (Haraway 2013; Mathur 2021b; Van

Dooren 2015). However, I have shown how an elusive predator can have an impact on human worlds – namely their cosmology, fear, affective encounters, and domesticated animals, in its physical and socially constructed form.

This project is unique in that it examines how environmental conservation can alter and affect multispecies relationships with non-humans. Several conservation strategies do not involve physical connections with the feline itself. Jaguar conservation projects, inspired by fortress or territorialization strategies, can encourage the protection and maintenance of the jaguar and environment's wildness in the absence of humans. Strategies which encourage ecosystem restoration, illustrate how humans can manipulate the environment to ensure the wildness of animals, such as the jaguar. Both methods of protecting the wilderness where the jaguar lives also coincide with ecotourism – a way for humans to experience the environment within an Amazonian Anthropocene. Jaguar conservation education programs can educate others using ecological, cosmological knowledge, and camera trap footage which uphold the predator's characterisation as a charismatic species. Lastly, jaguar conservation also involves mitigation of predator-cattle conflict with farming communities, as farmer's laborious care relationships with cattle are perceived to be threatened by the jaguar. These types of strategies implicate social constructions of the jaguar, such as the apex predator, digital, affective, threatening, and charismatic jaguar.

This study also illustrates the benefits of studying conservation not only from a multispecies lens but in different settings and among multiple communities. Most conservation studies in anthropology have examined the politics of conservation organizations, initiatives, namely their impact on local livelihoods. However, this study examines how different social actors' individual experiences with the feline, characterized by affect and emotions, such as fear

or amazement, factor into perceptions of the jaguar, social constructions of the jaguar, and therefore motivations or disinterest in protecting this feline.

8.5. Concluding Remarks: Six Jaguars

I have proposed six social constructions of the jaguar emerging from one *Panthera onca* species- the apex predator, the affective jaguar, the threatening jaguar, the semi-wild jaguar, the digital jaguar, and the charismatic jaguar. These six jaguars are constructed by social actors who are implicated in conservation projects. As conservation is a human-led project towards a more "responsible Anthropocene", consideration of social actors' perspectives of this feline are necessary to predict the success, and failures of certain strategies and solutions. Although considering the perspectives of social actors in conservation is not a novel realisation, this thesis pushes the understanding of social actors' perceptions of the *Panthera onca* further by considering how human actions towards the *Panthera onca* in conservation blur distinctions of domesticated and wild and therefore how humans and non-humans are affected by each other. These six jaguars illustrate how multispecies worlds, proximate multispecies relationships, physical, and near encounters are implicated in conservation initiatives in an Amazonian and planetary Anthropocene. Additionally, conservationists may be the main actors managing and creating conservation projects, however this thesis has shown how these natural scientists have social constructions of the jaguar. This demonstrates how "local" actors' perspectives of jaguars are not the only ones which should be considered in conservation projects. Realizations from this study make me wonder if human actions will protect jaguars or lead to its demise. Dare I ask: what would a world look like without jaguars?

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APPENDIX A: MAPS

Map of Ecuador

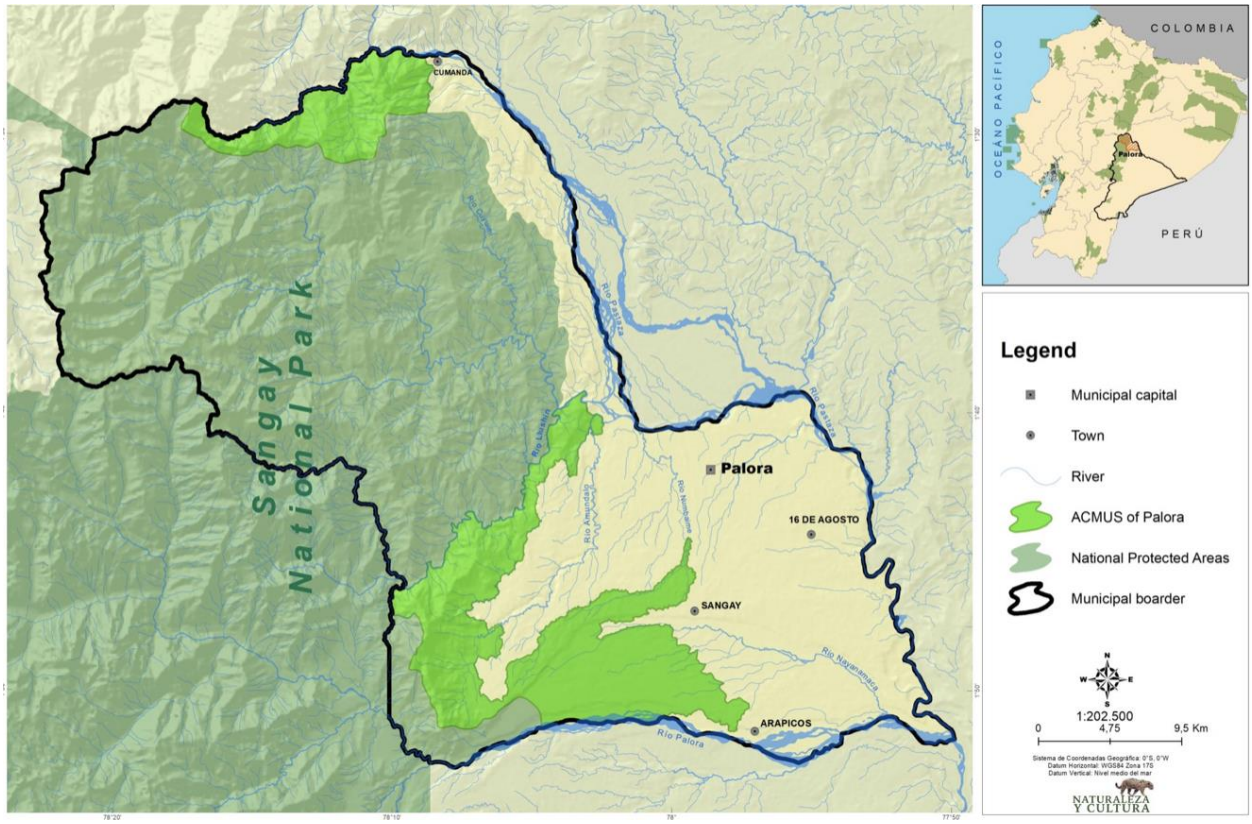
Source: https://www.worldatlas.com/upload/29/db/08/ec-01.png

Map of Morona Santiago Province

Source: https://www.planetandes.com/ecuador/amazon/morona-santiago/tourist-attractions-map-macas-morona-santiago-ecuador/

MAP OF CORRIDOR FROM SANGAY NATIONAL PARK TO KUTUKÚ- SHAMI RESERVE

Source: https://www.andesamazonfund.org/news-blog/connecting-a-key-biological-corridor-in-ecuador/



APPENDIX B: PHOTOS

Photo of the Upano River from Macas

Photo of the three jaguars at Los Jaguares Rescue Centre

CAMERA TRAP PHOTO OF A JAGUAR DURING THE DAY (MERA, ECUADOR)

CAMERA TRAP PHOTO OF A JAGUAR AT NIGHT (MERA, ECUADOR)

APPENDIX C: INTERVIEW GUIDES

Conservationist Interview Guide

Individual experiences with Jaguars (and conservation)

1. What made you decide to get involved in conservation?
2. Do you care about jaguars?
3. Do you look after or care for jaguars as part of your conservation role?
4. Describe the first time you saw a jaguar. How did you feel?
5. While working in jaguar conservation, is there a memorable instance which inspired you to continue in this field?
6. Have you ever been involved in rescuing/releasing a jaguar into the wild? If so, what was this like?

Importance of Jaguar conservation

1. How is jaguar conservation important? Explain.
2. What role do jaguars play in the environment?
3. Why should people care about jaguars?

Human and jaguar relationships

1. Describe the relationships between humans and jaguars
   a) How do human actions affect (or threaten) jaguars?

1. What human-jaguar conflicts exist in this area (or in Ecuador in general)?
2. How will jaguars and humans be able to co-exist peacefully?

NGO strategies

1. What is the mission and mandate of the NGO you are associated with?
2. From what position or angle does your organisation approach jaguar conservation?
3. What strategies does your NGO use to address the declining population of jaguars?
   a) What jaguar conservation strategies do/ have you worked on with the NGO?
1. What have the results been of your jaguar conservation efforts?
2. What types of technology do you use in your conservation strategies? How does this assist in jaguar conservation?
3. What kinds of roles are involved in your organisation's jaguar conservation strategies?

Local populations & Conservation

1. How are local communities involved in your jaguar conservation efforts?
2. How do residents living near jaguars perceive them?
3. Does local knowledge (e.g.: forest environments, jaguar behaviour) assist in jaguar conservation?
4. Has the community been involved in any of your jaguar conservation efforts? What have been some of the experiences of local community involvement in jaguar conservation? Positive or Negative?
5. you think it is important for the local community to participate in jaguar conservation? Why?
6. Do local community perceptions of jaguars conflict with your organisation's perception of jaguars?

   a) If so, how has your organization been trying to address negative perceptions of jaguars in the context of conservation strategies?

   7. Is it easy to cooperate with local populations in jaguar conservation?

COVID-19 and Jaguar Conservation

1. Has the COVID-19 pandemic affected your conservation strategies? If so, how?
2. Has the COVID-19 pandemic had an impact on human and jaguar relationships? If so, how?
3. From your understanding, has COVID-19 had an impact on jaguar populations?

The Current state of Jaguar Conservation

1. Is jaguar conservation in Ecuador prioritized (e.g.: given adequate attention)?
2. In your opinion, could more be done to protect jaguars in Ecuador?
3. Does your organisation have a long-term conservation plan? If so, what is this?

Farmer Interview Guide

1. Can you tell me a little bit about the area, the farm, or the people that live here?
2. When did the jaguars start attacking your cattle?
   a. How many times?
3. How did you know it was a jaguar and not another type of cat (Tigre)?

4. Do you have photos of the cattle that was killed?
5. Do you think the jaguar is still around the area?
6. Have you done anything to try and stop the jaguar from attacking your cattle again?
7. Are you afraid of the jaguar attacking your cattle?
    a. Are you afraid of jaguars in general?
8. Why do you think the jaguar is attacking your cattle?
9. What should the government do to stop incidents like this from happening?
10. Around the world there is a concern that the jaguar is endangered and is in need of protection through conservation – protecting the species and the environment. Do you think this is important?
    a. If yes, Is it important for the local community to participate in jaguar conservation? Why?
    b. If no, why?
11. Do you have anything else to tell me about this topic?

Shuar Interview Guide

1. Describe the relationships between humans and jaguars.
2. What role do jaguars play in the environment?
3. Do jaguars have cultural/ spiritual importance to you? If so, explain.
4. Why should people care about jaguars?
5. How do residents living near jaguars perceive them?
6. What do you think about current jaguar conservation strategies in Ecuador?
7. Are members of Indigenous communities involved in jaguar conservation efforts?
    a. (If answered yes - What have been some of the experiences of local community involvement in jaguar conservation? Positive or Negative?
8. Can local knowledge (e.g.: Indigenous knowledge of the environment, forest environments, jaguar behaviour) assist in jaguar conservation?
9. Is it important for the local community to participate in jaguar conservation? Why?
10. How can the Indigenous community be involved in jaguar conservation?

Volunteer Interview Guide

1. Describe the first time you saw a jaguar. How did you feel?
2. Do you have a specific encounter/ story with a jaguar while working at the centre?
3. Did you learn anything new while working with jaguars at the centre?
4. Do you think your experiences at the centre are tied to conservation If so, how?

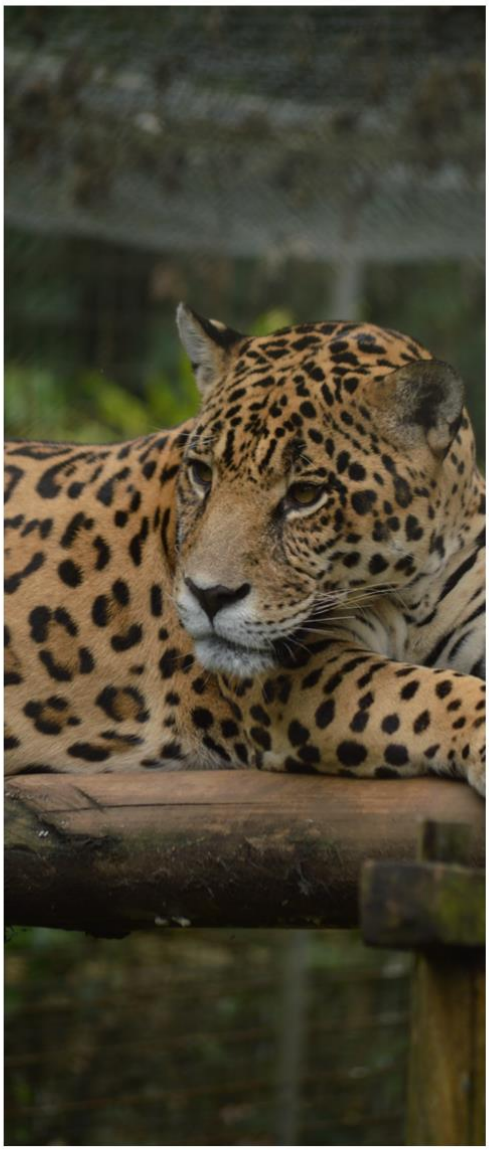
APPENDIX D: LOS JAGUARES RESCUE CENTRE VOLUNTEER MANUAL

INTRODUCTION

Ecuador is one of the most biodiverse countries on Earth, and a territory of huge international importance for nature conservation and sustainable tourism.

Ecuador faces one of the most serious problems on our planet - wildlife trafficking; often motivated by scientific purposes, commercialisation of skins, or live species.

The "Los Jaguares" Rescue Center volunteer program aims to create a space for the protection of endangered species, responsible tourism, education and community development, through training, inclusion, and the integral participation in these spaces of all local stakeholders and tourists.



LOCATION

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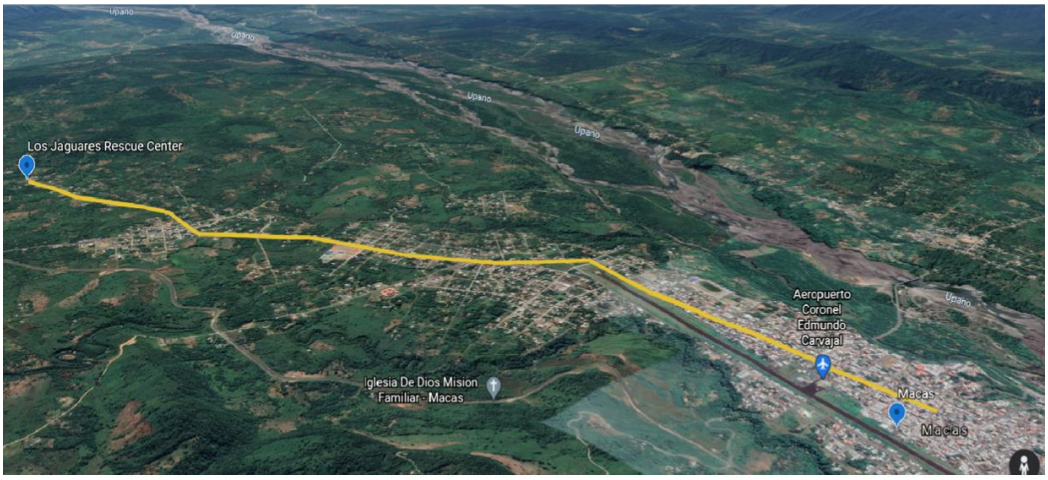


GENERAL INFORMATION

CATEGORY: ANIMAL.

SUBCATEGORY: WILDLIFE PROTECTION & CONSERVATION

DURATION OF STAY:

MIN. 1 WEEK - MAX. 12 WEEKS

PROGRAM AVAILABLE:

JAN FEB MAR APR
MAY JUN JUL AUG
SEP OCT NOV DEC

SUITABLE FOR:


SINGLES


COUPLES


FAMILIES


GROUPS

LANGUAGE:

PROGRAM DESCRIPTION

While every experience at the Los Jaguares Rescue Center is different, the following activities - relating to jaguar and feline care, handling and management - can be included during your time with us. Depending on the duration of your stay, participants may experience different and/or additional complementary activities to further enrich your experience.

- **Preparation of feline diets.**

Schedule: 6:30 to 7:30 am daily.
A vital part of the rescue centre is a daily visit to the local market for freshly butchered meat for the felines.

- **Breakfast.**

Schedule: 8:00 to 8:30 am daily.

- **Feeding of felines:**

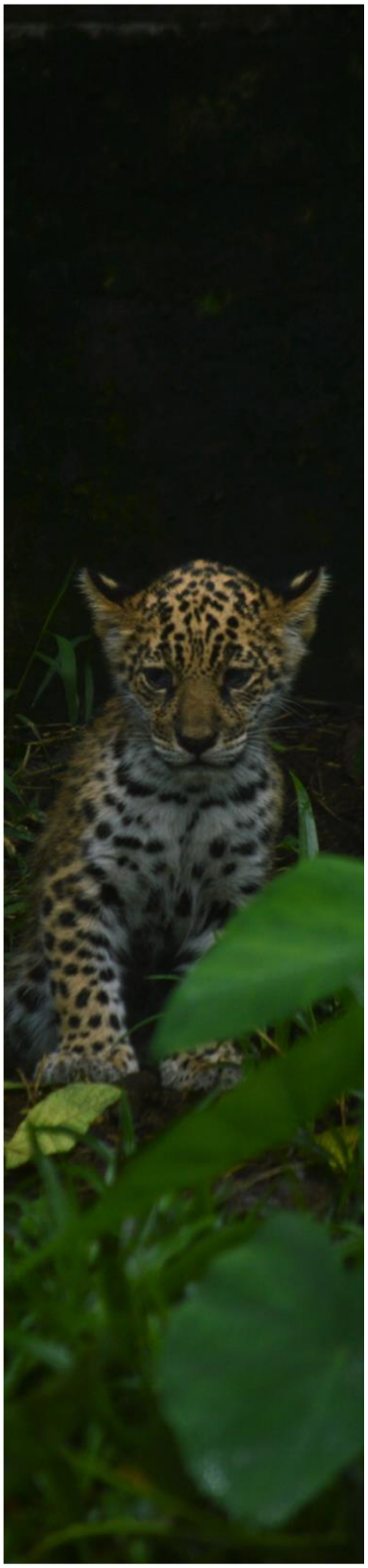
Schedule: 8:30 to 10:30 a.m daily.
Meat is cut and weighed, then volunteers proceed to feed the felines between 1kg and 1 1/2 Kg.

- **Weekly veterinary monitoring and feeding with live prey**.

Schedule: 10:30 to 11:00 a.m.
A careful observation of the stress and mood of all felines is carried out, in addition to feeding them with live prey.

- **Monthly maintenance of enclosures and environmental enrichment.**

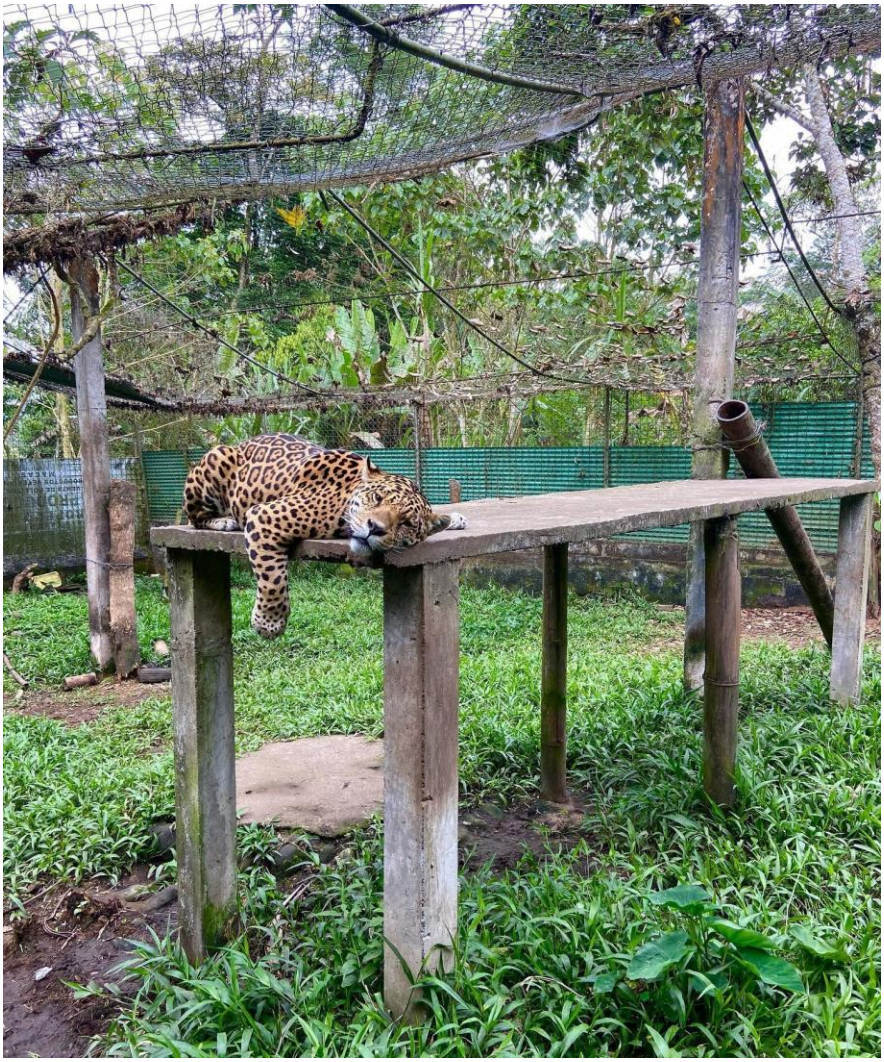
Schedule: 10:30 a.m. to 12:00 p.m.
Intense cleaning is carried out to collect animal remains and repair the enclosures, due to humidity conditions the structures deteriorate rapidly.



APPENDIX E: LOS JAGUARES ENVIRONMENTAL EDUCATION PROGRAM

Los Jaguares Rescue Centre Environmental Education Program (2022)

By: Gabriella Richardson



Program title: Los Jaguares Rescue Centre Environmental Education Program

Age group: Primary school students. Kindergarten to grade 2 or 3

Summary (Objective):

During this education program at Los Jaguares Rescue Centre, students will learn about flora and fauna native to their environment here in Amazonica (in the vicinity of Macas) and the importance of environmental conservation. This will be done through a series of activities and games to keep students engaged. Most importantly, this program focuses on the Jaguar (Panthera Onca), a key species not only symbolic to Los Jaguares Rescue Centre, but also to the beauty and importance of the rainforest.

Duration: 2.5-3 Hours

Outline:

1) Lecture: Jaguars are Kings and Queens of the Jungle
2) Tour of animals at Los Jaguares Rescue centre
3) Los Jaguares Jungle Story: Deforestation and Reforestation activity
4) "Exotic Animals are Not Pets" Poster activity
5) Recycling and planting activity

Instructions for Program Facilitator:

Introduction

Equipment

- Jaguar Masks

Students will be given print out jaguar masks.

Instructions:
During this introduction you will welcome the class to the centre. Quickly, in one to two sentences, describe what the students will learn today. Make sure you use simple and plain language.

Sample script:

"Hello everyone! Thank you for coming to Los Jaguares Rescue Centre. My name is _____. Today we are going to learn about the environment (jungle) and why we should protect it. We are going to see many different plants and animals here at the centre and we will teach you about all of them."

1) **Lecture: Jaguars - King and Queens of the Jungle**

Equipment

- Jaguar masks

Students will wear their jaguar mask and you will teach them a few facts about the jaguar. Teach them three facts of your choosing and save a few more for when you go and visit the jaguars at the centre. **Below is an example script:**

"Here at Los Jaguares we have three jaguars which you will get to see today. Jaguars are one of the biggest and beautiful species in our jungles here in Amazonia. Can everyone wear their jaguar mask for me? (Pause) Great! Wow, look at all you jaguars! Now, do you know what sound a jaguar makes? Now lets try to make jaguar sounds! (Pause) Great!

I am going to tell you three interesting things about jaguars.

1) Jaguars are known for their beautiful spots - these spots help them hide in the forest
2) Jaguars live in rainforests , grasslands and woodlands. They like to live in the jungle far away from people with a lot of space. Because the jungle here in Amazonia is the jaguar's home, we want to save it so the jaguars can live happily.
3) Jaguars are great hunters. They have great eyesight and they are very very quiet when they walk and climb while looking for food.

Now we are a bunch of jaguars who are going to visit the animals here at the rescue centre! When you are visiting an animal, you can take down your mask. When we move to the next animal, wear your mask and carefully tip toe and walk quietly like a jaguar…. Can you do that for me? Okay! Let's go"

2) Tour of Los Jaguares Rescue Centre

Equipment:

- Jaguar masks (students are still holding them)

Take the students on a tour of the centre following the usual tour route. Start at the parrots and walk through towards the coatis and eventually the monkeys and water turtles. Tours can vary based on who is leading the group, but below are some interesting facts about each animal geared towards younger audiences.

1) Parrots

- We feed the parrots peanuts, papaya, bananas and fresh corn
- Share some rescue stories about any of the birds
- Note: point out the turtles at the bottom
- Quick activity to get their attention: Tell the students to put down their jaguar masks and pretend to be a parrot for 10 seconds (flapping arms, squawking)

2) Guatusas

- Eat green bananas, parts of papayas, carrots - basically organic material
- They like to live near rivers in the wild

3) Squirrel Monkey

- Tell the students the story of the squirrel monkey (e.g.: kept as a pet and it had a broken arm when it arrived, now it is doing much better)

4) Puma

- Tell the story about how Shiram arrived at the centre
- Shiram eats meat and eggs
- Shiram is the second largest cat in North and South America after the jaguar

5) Jaguars

- Introduce all three jaguars and their story briefly
- Tell the kids that they are very powerful hunters and have the most powerful jaws of any big cat in the world
- Like Shiram, they eat meat
- Jaguars are also very good swimmers

6) Turtles
- Stop by the two turtles and tell the kids how old they are (60-70 years old)
- They eat lettuce and papaya

7) Cuchucho
- Introduce the names of the two cuchuchos to the students
- They are omnivores - they eat meat and fruit. Usually they eat bananas and papaya

8) Monkeys - Mono Capuchino Negro & Mono Capuchino Blanco
- Introduce their names
- They also eat bananas and papaya
- Monkeys are also omnivores

9) Water Turtles
- Point out all the water turtles as best you can
- Explain that they also eat meat too

10) Amigo!
- Towards the end of the tour point out amigo the parrot.

- Plants to point out on the tour:

- Birds of paradise
- Ginger flowers
- Pink flowers (Eva eats them)

Why is it important to point out these plants? Students will see them in the poster/ story activity!

End of Tour:

- Pause and see if students have any questions
- Ask students to act like a jaguar as they walk by the volunteer rooms towards the front of the centre, where there are the exhibits/ volunteer area
- Once students are back at the front, briefly show them the snakes and turtle shells.

3) Los Jaguares Jungle Story: Deforestation and Reforestation activity

Equipment:

- Poster
- All laminated pieces

Summary:

This activity will require all students to participate. Students will help to make a healthy jungle using the plants and animals from Los Jaguares Rescue Centre. Then, we will introduce elements which cause deforestation and show students how plants and animals in the jungle are threatened by human activities and climate change. Lastly, students will learn the importance of reforestation.

Instructions:

Step 1) Hand out all laminated pieces to the students, one at a time. It does not matter what piece the student has. Make sure the students have roughly the same number of laminated pieces. Note: when you give them a laminated piece of the poster, they can give you the jaguar mask back.

Step 2) Ask all students to sit around the big blank poster for story time. Make sure all students can see but there is enough space for students to stand up and add to the poster.

Step 3) Get the attention of students and ask them to quietly sit as we begin the Los Jaguares Jungle story.

Step 4) Begin telling the story….

Los Jaguares Jungle Story:

Once upon a time there was a jungle called Los Jaguares (Rancho Fatima). This forest had tall trees, a papaya tree and beautiful flowers.

(Ask students who have these items to come to the front and stick them on the poster - guide them based on the images below.)

This forest also had a beautiful clean river running through it

(students will the pieces of the river pin them on the poster)

The trees, plants and water made this forest a great home for many animals. There were guatusas running around by the river…

(students with the guatusa pieces pin them on the board)

There were water turtles and land turtles …

(students with turtle pieces pin them on the board)

There were also coatis, like panchita and canella

(students can pin them on the board - note: one should go by the tree)

There were also monkeys hanging out by the trees

(students with the monkey pieces pin them on the board - note: one should go in the tree)

There were also parrots singing happily in the trees… and the mean bird even felt at home in this forest

(students with parrot pieces, mean bird piece, pin them on the board. Some parrots go in the trees)

Because there were small animals, the puma loved the forest too. There was enough food to eat.

(student with the puma pins it on the board)

There was also enough food in this forest for the jaguars.

(students with the jaguar pieces pin them on the board).

As you can see, this forest is full of animals and plants. This is what we want our forests to look like.

But one day, some people came to the Los Jaguares forest and started to cut down trees so they could sell wood.

(Take down both trees from the board. Also take down the animals living in the trees. Students with axe cutting and cut down tree pieces pin them on the board in place of the trees or around the trees)

Oh no! Now we lost some animals in our forest. They do not have a home! But wait…some farmers also came to the forest and wanted to make the land a pasture for cattle. They cleared the land of all the flowers and remaining trees. But this meant the coatis and guatusas lost some of their home too, to make space for the farmer's cows.

(Take down enough flowers, guatusas (but not all) to make room for the farmer and all the cows. Then as students with the farmer and cow to put this on the board)

Now we lost even more animals! But wait… now a mining company has come to search for precious metals. Their big machines started digging up the ground of the forest, and even blocked part of the river! Our turtles lost their home, and the guatusas and turtles were scared away.

(Remove the right piece of the river. Take down the water turtles, all the turtles and the remaining guatusas. Ask students with the construction machines to pin these on the board, near the river).

Now we see that the small animals are gone. This means we don't have enough food for the big cats. So the puma and jaguars also left the Los Jaguares jungle.

(Take down all the big cats from the board)

Now it started to get even hotter in the forest because there were even less plants and trees. Forest fires eventually started and were hard to control…

(ask students with fire pieces to pin them on the board)

What do we have left of our forest? Nothing! All the plants and animals are gone. People used the forest and took advantage of it. No one replaced what we took away.

Now, we may need things from the forest and to use the land… but it is important to replace what we take, or use forest resources sustainably, so the forest still has enough food for all the animals.

This poster does not show the Los Jaguares Jungle anymore. But we can still try to save the jungle and the environment, by replanting trees and stopping activities which will really harm the forest.

(ask students with sprouts to post them on the board near the river. Take away some of the pieces on the board to make room if necessary).

If we protect the forest and grow new plants, the animals will have a home to return to. We will also have a happy and healthy planet :)

END OF THE STORY

Tell the students thank you for participating, ask them if they have any questions.

APPENDIX F: MACAS GOVERNMENT FORM – JAGUAR CONFLICTS AND CATTLE ATTACK REPORT FORM

Gobierno del Encuentro | GUILLERMO LASSO PRESIDENTE

Oficio Nro. MAATE-OTMO-DZ6-2022-756-TEMP
Macas, 14 de septiembre de 2022

Asunto: Conflicto gente-fauna del jaguar

Señorita
Gabriella Philomena Richardson
Estudiante UNIVERSITY OF GUELPH
En su Despacho

De mi consideración:

En respuesta al Documento No. MAATE-OTMO-DZ6-2022-1569-E conflicto gente-fauna del jaguar se entraga informacion recopilada de la oficina vida silvetre se adjunto lo indicado.

Con sentimientos de distinguida consideración.

Atentamente,
Sr. Alexander Miguel Angamarca Valdivieso
RESPONSABLE DE LA OFICINA TÉCNICA MACAS

Referencias:
- MAATE-OTMO-DZ6-2022-1569-E
Anexos:
- maate-otmo-dz6-2022-1569-e0961186001661185867.pdf
- conflicto_gente-fauna_jaguar-.pdf
Copia:
Señorita Bióloga
Ximena Karina Cevallos Aleaga
Especialista en Calidad Ambiental Provincial
Señor Ingeniero
Dani Wilfrido Luzuriaga Herrera
Especialista Forestal Provincial 1

Ministerio del Ambiente, Agua y Transición Ecológica
Dirección: Calle Madrid 1156 y Andalucía
Código postal:
Teléfono:

Conflicto Gente-Fauna Jaguar

¿Qué es el conflicto Gente-Fauna?

Los conflictos entre humanos y la fauna silvestre ocurren cuando las necesidades de la fauna silvestre invaden la de las poblaciones humanas, con costes tanto para los residentes como para la fauna silvestre

¿Cuáles son las causas?

- Los conflictos entre fauna silvestre y actividades agropecuarias a agricultura migratoria.
- El crecimiento poblacional y urbano, y la construcción de vías que lleva a un traslape de actividades humanas con los ecosistemas usados por la fauna silvestre, y la alteración y destrucción de sus hábitats naturales, esto ocurre principalmente por limitaciones en los procesos de ordenamiento ambiental del territorio y en el análisis de la vocación de usos de los ecosistemas a intervenir.
- A esto se suma un inapropiado manejo agrícola y pecuario, la tala ilegal, la existencia de oportunidades económicas cuyo desarrollo es incompatible con el mantenimiento de los hábitats naturales, además la baja tolerancia de los hábitats hacia la presencia de la fauna silvestre a agravar los conflictos

Estadísticas del conflicto gente-fauna en Ecuador

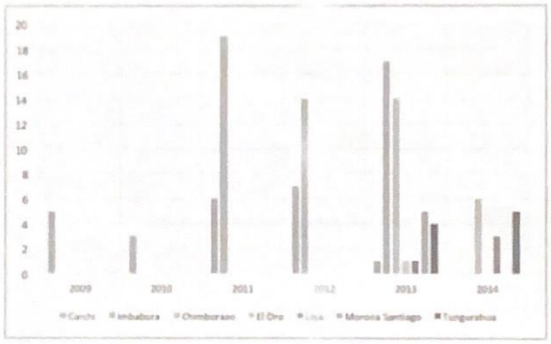
Los gobiernos nacionales de igual forma elaboran sus propias listas con detalles de fauna y flora del país. En Ecuador contamos con el Libro Rojo de los Mamíferos del Ecuador en el cual se encuentra el jaguar, la subespecie *Panthera onca onca*, la cual se encuentra distribuida en la región Amazónica. La subespecie forma parte de ese listado ya que se ha evidenciado la reducción de su rango de distribución en aproximadamente el 30%, este porcentaje es en base a estudios de cobertura vegetal y uso de suelo. La subespecie cuenta con una variación de categoría de amenaza, la cual se puede observar en la tabla

Subespecie	Año	Categoría de Amenaza
Panthera Onca onca	1999 – 2010	Vulnerable ("V")
	2010 hasta la actualidad	Peligro ("EN")

Fuente: UICN, 2011

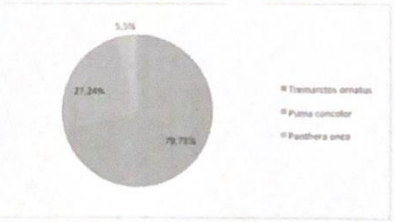
El Ministerio del Ambiente, Agua y Transición Ecológica a través de cada Dirección Provincial registra los sucesos y los reporta, cada tres meses, a la dirección Nacional de Biodiversidad para su registro nacional, de los datos entregados por el MAATE, algunos desde el 2009, se tienen los resultados siguientes:

Numero de conflictos gente – fauna registrados por provincial desde el 2009



Como se puede apreciar en el gráfico, desde el 2009, han aumentado los conflictos en un número mayor de provincias.

Porcentaje de conflictos por especie de mamíferos



Fuente: MAE, 2015. Elaboración CFT, 2015

De acuerdo al gráfico se tiene que los reportes de conflictos más frecuentes en el tercer lugar es el jaguar (*Panthera onca*), con el 5,5%, los principales conflictos se refieren al ataque del jaguar al ganado vacuno, por lo cual han sido seguidos y sus poblaciones se han visto reducidas en muchas localidades, la resolución o mitigación de estos conflictos es una prioridad para la conservación de estas especies

Las lecciones aprendidas en lo que atañe al conflicto y su manejo responden a modelos conceptuales universales en los que el conflicto es la consecuencia de la interacción entre la ecología y conducta de las especies de fauna silvestre, las actividades humanas y las condiciones del hábitat, las interacciones negativas ocurren cuando en una de estas relaciones que se explicaran posteriormente una de las especies se ve perjudicada, en

Interacciones Negativas	Definición	Situación actual
Tráfico de partes y especimenes	Uno de los negocios ilícitos más dañinos y rentables del mundo equiparable a la que mueve el tráfico de armas y de drogas, la cual es una amenaza para las especies protegidas (WWF España, 2018)	Problema grave que atenta contra la diversidad de especies ya que por cada diez animales extraídos de su habitad solamente uno llega vivo a su lugar de cautiverio, las especies que mas atraen son las aves y reptiles siendo de los animales más traficados.
Cacería de trofeos/ deportiva	Caza selectiva para la recreación humana donde el trofeo es el animal o parte del animal y generalmente se muestra como representación del éxito de la caza (Nelson et al. 2013).	El país permite únicamente la cacería y pesca de subsistencia para pueblos originarios en sus territorios y deroga la cacería deportiva y la cacería de control en el Acuerdo 261 (MAE, 2014), a pesar de esto se identificó que existe caza por trofeo notificados en reportes de prensa local.
Persecución	El ser humano caza a animales depredadores porque los considera una amenaza para sus animales domésticos (Espinosa, 2012).	Al jaguar se le caza por que se le considera una amenaza para los animales domesticados (aves de corral y ganado) causando una severa caída poblacional, este conflicto es conocido como persecución (Novack et al., 2005; WCS, Ecuador.
Defaunación Indirecta	Destrucción de la fauna por medio de la actividad humana sin ser específicamente orientada a la destrucción de los animales (Redford, 1992).	Ser humano caza el recurso alimenticio de la especie dejandolo sin presa natural (Espinosa, 2012).

este caso el jaguar.

Esta problemática es más evidente en zonas destinadas a la conservación de la biodiversidad, particularmente dentro de los límites de las áreas protegidas o en su zona de influencia, donde existen asentamientos que tienen que enfrentar este tipo de conflictos con los animales silvestres.

La resolución de los conflictos se basa en la reducción de la vulnerabilidad de las actividades humanas y reducción de la vulnerabilidad de las actividades humanas y la reducción de la percepción negativa de las especies silvestres, el proceso general de análisis y la resolución de conflictos es universal; se enfoca en el diagnóstico del conflicto y en la propuesta de un conjunto de intervenciones cuyo objetivo es reducir el riesgo y la percepción negativa hacia las especies de fauna silvestre.

Alternativas Generales

- Evaluar las áreas protegidas establecidas ya que estas no fueron creadas bajo ningún análisis que involucre la biodiversidad del país, por lo que no protegen el rango de distribución de especies representativas, este caso al jaguar.
- Generar investigación en zonas donde la población del jaguar es viable para preservar su existencia.
- Regeneración de las zonas de amortiguamiento y zonas aledañas a bosque primarios y áreas protegidas, lugar donde el felino en su mayoría es atacado.
- Incluir en el Programa Socio Bosque la condición de que los bosques protegidos mantengan de manera estable grandes carnívoros, sobre todo al jaguar.
- Se deben fortalecer proyectos de reproducción en cautiverio, a través de la determinación de áreas para repoblación de acuerdo con los requerimientos de hábitat y a la distribución probable y potencial de la especie, así mismo generar planes viables de liberación y el uso de equipos adecuados para el seguimiento de individuos liberados.
- Diseñar planes de gestión donde se involucre a la gente local por ejemplo charlas de educación ambiental en zonas de conflicto, dar información y actividades prácticas como talleres de conservación de especies en peligro de extinción con actividades lúdicas para niños y adultos.
- Generar estudios de percepción del jaguar y especies presa para entender su realidad y poder diseñar planes de concientización
- Generar más información espacial sobre el jaguar para plasmarlo en forma gráfica para un mejor entendimiento.

Persecución

- Alternativas de obtención de proteína de animales domésticos
- Controlar la comercialización de carne de monte
- Evitar construcciones viales por parte de las petroleras
- Establecer protocolos de manejo y de destino final de los especímenes incautados
- Endurecimiento de sanciones: a las personas que se les detenga por caza de especies vulnerables o carne de monte. La penalización será monetaria porque es la única forma en que la gente entre en razón ya que se le afecta su economía. Así mismo se debe modificar la pena de cárcel entre 3 y 10 años ya que las especies atacadas por la caza ilegal no pueden regenerar su población fácilmente.
- Gestionar proyectos con financiamiento: el Ecuador es un país con alta biodiversidad donde habitan especies que no se pueden encontrar en otro lugar y a su vez son especies emblemáticas por las cuales se pueden obtener financiamiento extranjero para mantener la viabilidad de éstas. Los proyectos de conservación deben involucrar gente local, ya que ellos son los que tienen contacto directo con las especies por lo que deben apuntar a la estabilidad de ellos como por ejemplo el ecoturismo, monitoreo comunitario, turismo investigativo.

Denuncia

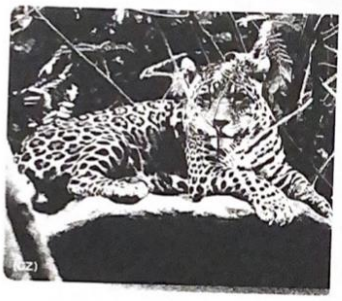
Según la denuncia, el jaguar habría sido asesinado como consecuencia de un conflicto entre personas de la comunidad y la fauna en la comunidad de San Antonio, perteneciente al cantón Limón Indanza, al sur de Morona. El jaguar habría cazado a un animal de granja de uno de los habitantes de la comunidad. Tras cometer este hecho, los sujetos publicaron fotografías como si fuera una hazaña, en las que aparecen junto al animal muerto.

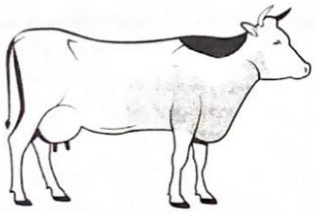
El problema que estarían viviendo algunas especies del mundo animal en esta zona amazónica estaría relacionado con la pérdida de su hábitat, ocasionando que estos animales ante la necesidad de alimento o en defensa de su territorio ataquen a los ganados y sus propietarios asesinen a los jaguares.

https://issuu.com/christiansantiagopuchavinueza/docs/unidad_8_conflicto_gente_fauna

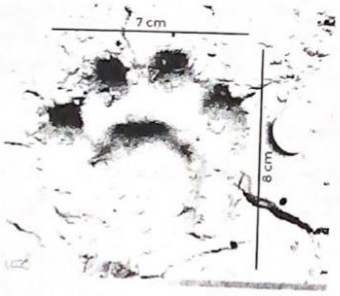
- Identificación de zonas vulnerables
- Trabajar con las comunidades
- Uso de corrales
- Mantener animales domésticos alejados de los bosques
- Uso de elementos físicos: para evitar el ataque a animales domésticos o a poblaciones se debería usar explosivos de propano, material pirotécnico no dañino para espantar a los felinos y reducir las depredaciones. También se podrían utilizar estímulos visuales y acústicos como disparos al aire los cuales no son letales, el fin es asustar al jaguar para que huya.
- Creación de una legislación: el Ecuador no cuenta con una legislación específica que apoye al a gestión de los conflictos gente – fauna por lo que las medidas que se han implantado no generan cambios. Se deben crear ordenanzas de protección de especies amenazadas por este conflicto mediante la gestión eficiente de instituciones públicas y privadas acordes con la realidad en territorio.
- Formación del personal del MAATE: en temas de peritaje de conflictos y el manejo que se les debe dar. Se les debe otorgar los recursos necesarios para que ellos puedan ofrecer soluciones a las personas afectadas por consecuencia de ataques a sus animales domésticos, no es suficiente el acto de presencia en la zona afectada.
- Indemnizaciones: implementar un sistema de compensación por las pérdidas económicas derivadas de la depredación del felino hacia los animales domésticos, esto evitaría la cacería de represalia. Este sistema se pondría en marcha siempre y cuando se aplique de manera adecuada con medidas preventivas útiles. Así mismo se debe mantener un control continuo de las haciendas atacadas para evitar vacíos de información y la compensación sea la correcta.
- No disparar al felino
- No ir de caza con caninos
- Monitoreo biológico del jaguar
- Monitoreo biológico de presas naturales del jaguar
- Disminuir consumo de carne de monte

Jaguar *(Panthera onca)*





Área preferida de ataque.
Área preferida de consumo.



- Ataca generalmente presas medianas, como perros cerdos y becerros.[2,3,4]
- Mata a su presa fracturándole el cráneo o las vértebras del cuello y deja la cabeza volteada hacia atrás. Puede morder a la presa en la base del cráneo o nuca, dejando hematomas o moretones.[2,3,4]
- Consume, principalmente, partes de la cara, cuello, pecho y la carne que cubre las costillas.[3,4] En ocasiones consume nariz, orejas, testículos o las ubres.[2,3,4]
- Puede arrastrar a su presa más de 1 km y NO la cubre con restos de vegetación como lo hace el puma.[2,3]
- Es común que el jaguar regrese a consumir la presa atacada.
- La distancia entre los dientes caninos superiores (colmillos) puede ser mayor o igual a 5 cm; entre los dientes caninos inferiores (colmillos) puede ser mayor o igual a 4 cm.[2,3]
- Sus huellas son grandes y redondas; las patas delanteras tienden a ser tan anchas como largas (alrededor de 8 cm x 8 cm), mientras que las patas son más largas que anchas (alrededor de 8 cm x 7 cm), con dedos redondos.[1,2,3]

Gobierno del Encuentro | GUILLERMO LASSO PRESIDENTE

FORMULARIO PARA EL REPORTE DE ATAQUES

A) INFORMACIÓN GENERA

a) Encuesta número:		
b) Nombre del encuestador:		
c) Institución/organizador:		d) Cargo
e) Fecha de la encuesta: Día / Mes / Año:		
f) Nombre del entrevistado:		g) Teléfono:
h) Provincia:	i) Cantón:	j) Parroquia:
k) Sector:		l) Comunidad:
m) GPS (grados decimales) (Sitio de ataque)		n) Altitud (sitio de ataque):

B) LEVANTAMIENTO DEL ANIMAL DOMÉSTICO Y PRESUNTO ATAQUE

1. Fecha del presunto ataque: Día/ Mes/ Año
2. ¿Usted reportó del presunto ataque a alguna autoridad? Si ☐ No ☐
3. ¿Dónde reportó?
4. Fecha del reporte a la autoridad ambiental: Día/ Mes/ Año

Para responder correctamente las siguientes preguntas marca con una X, una o más opciones que se presentan en el siguiente cuadro:

	VACA	CABALLO	OVEJA	CERDO	AVES DE CORRAL	PERROS	OTROS
5. ¿Qué animal fue atacado?							
6. ¿Cuántos animales muertos hubo en este evento?							
7. ¿Cuántos animales heridos hubo en este evento?							
8. ¿Cuál es el peso de animal (s)atacado (s)?							
9. ¿Cuál es la edad del animal atacado (s)?							

Encierra en un círculo la respuesta que creas adecuada.

10. ¿Cuál es el estado de descomposición del animal? Nada Poco Mucho

C) Levantamiento de información del sitio (ataque y consumo)

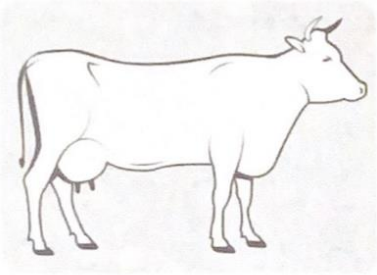
11. El animal atacado está:
Entero En partes

12. Piezas del cuerpo del animal encontrado:
Cabeza Patas(número) Tronco Otras (especifique)

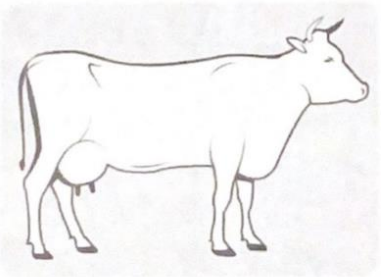
13. Los restos del animal (s) se encontraron:

1. Cubiertos con hojarasca sobre el suelo
2. NO cubiertos con hojarasca sobre el suelo
3. Sobre árboles en las ramas
4. Sobre árboles en nidos

14. Indica las áreas donde se registran marcas de ataque:



15. Indica las áreas consumidas:



16. ¿Hay señales de arrastre de la presa?
Sí No No sé

17. ¿El sitio de ataque y consumo son el mismo?
Sí No No sé

18. ¿Hay señales de enfrentamiento?
Sí No No sé

19. ¿Hay manchas de sangre en el suelo?
Sí No No sé

20. ¿Hay presencia de huellas tanto del depredador como del animal muerto?
Sí No No sé

D) Manejo del ganado

Encierra en un círculo la respuesta que creas adecuada

21. ¿Tu ganado lo tienes dentro de una cerca o fuera? Sí No
22. ¿Cuál es el estado de la cerca? Muy malo Malo Regular Bueno Muy bueno
23. ¿De dónde toma agua el ganado o animal? Bebedero artificial Río Quebrada Otro (describa)
24. ¿A qué distancia está el agua del bosque? Dentro del bosque < 500 m 3. 500 a 1000 m > 1000 m
25. ¿De qué manera llega el ganado o animal al agua? • Ganado o animal busca el agua por su cuenta • Usted lleva al animal a la fuente de agua • Otro (describa)
26. ¿Cómo se alimenta el animal? • Usted le proporciona el alimento • Área de pastoreo • En el bosque • Otro (describa)
27. ¿Con qué frecuencia entra el ganado o animal al bosque? Nunca Poco Regular Mucho Siempre

E) Información socioeconómica

28. Nombre del propietario:	
29. Género:	30. Edad:
31. Cuántas personas viven en la propiedad?	
32. ¿Cuántos hombres viven en la propiedad?	
33. ¿Cuántas mujeres viven en la propiedad?	
34. ¿Cuántas niñas viven en la propiedad?	
35. ¿Cuántos niños viven en la propiedad?	
36. ¿Cuál es tu actividad económica?	
37. ¿De las actividades mencionadas anteriormente, si tienes más de dos, cuál es la actividad principal ?	
38. ¿Cuál es el número total de animales en tu finca? (cabezas)	
39. La producción de animales en tu finca es para: Consumo Comercio Consumo y comercio	

Fin de la entrevista. Muchas gracias por tu participación

APPENDIX G: PARTICIPANT DEMOGRAPHICS

Participant	**Description**	**Sex – Male or Female**	**Age Group** 20-35: Young Adult 35-60: Middle Age 60+: Senior	**Ecuadorian or International Nationality**
Participant 1	Ecologist, camera trapper, with 20+ years of experience	Male	Middle Age	Ecuador
Participant 2	Holds a PhD in Biology	Male	Middle Age	Ecuador
Participant 3	Holds a PhD in Zoology	Female	Middle Age	Ecuador
Participant 4	Journalist with 20+ years of experience caring for recued animals in South America	Male	Middle Age	International – European
Participant 5	Experienced camera trapper and ecologist	Male	Young Adult	International – North America
Participant 6	Shuar conservationist	Male	Middle Age	Ecuador
Participant 7	A veterinarian. Experienced in animal care and rescue	Female	Middle Age	Ecuador
Participant 8	Background in Biology and Environmental Studies	Male	Middle Age	Ecuador
Participant 9	Holds a PhD in Wildlife Ecology and Conservation.	Male	Middle Age	Ecuador
Participant 10	Master of Environmental Management	Female	Middle Age	Ecuador and North America
Participant 11	Founder of Los Jaguares Rescue Centre	Male	Senior	Ecuador
Participant 12	Manager/ Volunteer	Male	Young Adult	Ecuador

	Coordinator of Los Jaguares Rescue Centre, Macas			
Participant 13	Animal Care student who was an intern at Los Jaguares Rescue Centre in 2021	Male	Young Adult	International - European
Participant 14	Volunteered at Los Jaguares Rescue Centre.	Male	Young Adult	International - European
Participant 15	Volunteer at Los Jaguares Rescue Centre	Male	Young Adult	International - European
Participant 16	Volunteer at Los Jaguares Rescue Centre	Female	Young Adult	International - European
Participant 17	Volunteer at Los Jaguares Rescue Centre	Male	Young Adult	International - European
Participant 18	Volunteer at Los Jaguares Rescue Centre.	Male	Young Adult	International - European
Participant 19	One of my translators who is from Buena Esperanza	Male	Young Adult	Ecuador
Participant 20	Shuar Elder from Buena Esperanza community	Male	Senior	Ecuador
Participant 21	Shuar community member who works for the environmental ministry in Don Bosco (neighbourhood in Macas, Ecuador)	Male	Middle Age	Ecuador
Participant 22	Buena Esperanza Community Member	Male	Young Adult	Ecuador
Participant 23	Farmer living at La Quinta Cooperativa	Female	Senior	Ecuador

Participant 24	Farmer living at La Quinta Cooperativa	Female	Young Adult	Ecuador
Participant 25	Farmer living at La Quinta Cooperativa	Male	Senior	Ecuador

APPENDIX H: QUALITATIVE CODES

Codes used for Interviews, Fieldnotes, and Macas Government Letter

Name	Description	Files	References
Anthropocene	Descriptions of activities and phenomenon which fall under anthropocentric destruction - widespread deforestation, pollution, human impacts on ecosystems and animals.	3	12
Camera traps	Any mention of camera traps.	5	26
Captivity	Includes peoples descriptions of animals, such as jaguars in captivity and opinions of state/ conditions of captivity.	8	45
Caring for jaguars	Stories and interviewee comments about looking after jaguars that have been rescued or held captive.	24	51
City and rural divide	Disconnect and differences between city and rural communities.	3	4
climate change	Noted changes in climate by participants.	3	5
Conservation	Descriptions and comments about animal and environmental conservation more broadly.	6	26
conservation work and research	Projects and studies being conducted on environmental conservation in general. E.g.: Deforestation.	10	91
Corruption	Comments about government actions which are biased	3	4
deforestation	Specific mentions and descriptions of deforestation.	2	4
Domesticated	Domesticated Amazonian animals such as birds and jaguars. Comments on the topic of domestication more generally.	7	14
ecotourism	Mentions and descriptions of eco-tourism activities.	4	25
Ecuador jaguar conservation	Current NGO activities, government action, and studies that are focused on jaguar conservation in Ecuador	12	38

Name	Description	Files	References
Educational and Professional background	Mainly pertains to conservationists.	2	4
Farmers and jaguars	Descriptions and stories related to the relationship, interaction, and conflict between farmers and jaguars/ other predators. Also includes mentions of agriculture more generally.	8	49
Fear of jaguars	Comments which display people's fear of jaguars.	10	31
Funding	NGO/ organization, government funding	6	11
Global	Connections people have around the world, to different places.	3	3
Government	Mentions of Ecuadorian government throughout interviews. Includes comments on people's relationships with the government, opinions of government action and inaction.	11	36
Human-Jaguar Interactions	May include observing, feeding, photo-taking, getting scratched	5	16
Knowledge system	Difference between scientific and Indigenous knowledge systems, different worldviews/ ways of understanding the world.	5	12
Indigenous people	Any descriptions or interview mentions related to Indigenous peoples in Ecuador. For example, any mentions by or about the Shuar, any mentions of Waorani people.	18	93
Inspiration to be involved in conservation	What inspired the person to partake in conservation activities. What inspired their education and conservation career path. What inspired them to start or continue work with a conservation NGO.	5	17
Jaguar (general information)	General information and studies about the jaguar as a species. Not necessarily Ecuador specific.	4	9
Jaguar as a predator	Descriptions which describe the jaguar as a predator, either in food chains or having predator tendencies	11	59
Jaguar as a symbol	Jaguars as a mascot or symbol of a place, organization, or product	3	5
Jaguar behaviors and qualities	Observed behaviors and physical traits of the jaguar that people describe.	11	28
Jaguar ecological role	The role jaguar's play in the natural environment. The role jaguars play in Amazonian food chains	5	21
Jaguar impressions	Describing their first impressions of a jaguar, how they look, how jaguars make them	10	20

Name	Description	Files	References
	feel.		
Jaguar killing	Mentions of people killing and hunting down jaguars.	9	35
Jaguar reintroduction	Explanations of the potential, positive and negative consequences of re-introducing jaguars into the wild	2	8
Jaguar research	Studies and conservationists who have researched jaguars in Ecuador and across South America.	2	7
Jaguar stories and wild encounters	Stories of people interacting with or encountering jaguars in the wild/ jungle.	6	26
Jaguars as pets	People who have or describe stories of jaguars being held as pets. Discussions of jaguars being held as pets more generally.	6	16
local communities and environment	Community interactions and reliance on the environment and general relationship with animals.	4	34
Local communities and jaguars	Local community or community interactions, conflicts and relationships with jaguars.	10	44
Locals hunting animals	Opinions and descriptions of local hunting patterns and their impact.	4	13
Los Jaguares Rescue Centre	Any comments, stories, and descriptions which are related to Los Jaguares Rescue Centre in Macas, Ecuador	32	94
Macas City	Observations and events occurring in Macas city.	1	7
National Park	Protected areas and national parks	5	19
Nature	What nature means to people.	3	4
NGO origin stories	Founder stories of how the NGO/ nonprofit started.	1	1
Pandemic impact	Impact of the COVID-19 pandemic on jaguars / NGOs and conservation initiatives which are directly or indirectly tied to jaguars.	1	8
Pawprints	Jaguar paw prints	6	13
Photographs of Jaguars	Photographing jaguars	3	3
Selling jaguar parts	The trade of jaguar parts, selling of jaguar parts such as skin and teeth.	7	20
Spiritual jaguar	Mentions of jaguars having spiritual and cosmological importance.	8	30
Technology	The role that technology plays in interactions with jaguars, tracking jaguars, and	3	8

Name	Description	Files	References
	jaguar conservation.		
Tiger	Descriptions of how some communities call jaguars “tigre” meaning “tiger” in Spanish.	7	12
Wild	Wild behaviour – animal instinct or wild in the sense of habitat and environment.	3	10
Yawa	Shuar participants who describe the jaguar as a “yawa”	4	5

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