

Project Update: February 2024

Introduction:

Traditional research on nature-based tourism has often separated various elements such as economic benefits and environmental costs in isolation, neglecting the complex web of human-nature relationships that form the backdrop of tourism experiences. In a departure from this trend, my research delves into the nuanced dynamics of one of South America's most renowned nature-based tourism programmes – jaguar tourism in the Pantanal.

The epicenter of this exploration is the Encontro das Aguas State Park (EASP) and its surrounding areas in the state of Mato Grosso, Brazil, where jaguar tourism has grown. EASP, notably recognised as the primary jaguar tourism hotspot, lures enthusiasts with the promise of encounters with jaguars along the rivers and streams of the Pantanal. Recent positive trends, such as a decline in retaliatory killing of jaguars and an increase in jaguar abundance, underscore the mutual relationship forged between the tourism industry, local communities, and the species itself.

However, this harmonious coexistence faces difficult challenges. Rapid and unsustainable tourism growth, social inequalities, the lingering impact of the COVID-19 pandemic, fires, habitat destruction, and the habituation of jaguars to human presence present difficult hurdles to the once-stable human-wildlife coexistence. In the pursuit of understanding and addressing these challenges, my research adopts an interdisciplinary approach, drawing from economics, sociology, geography, and conservation science.

The overarching goal of this project is to unravel the complex tapestry of how tourism influences the delicate equilibrium of human-jaguar coexistence in the Brazilian Pantanal. Our methodology involves a comprehensive examination of power dynamics among diverse stakeholders in the region, coupled with an exploration of the intricate interactions between human and non-human entities within the context of tourism and human-jaguar coexistence.

Conducted between September and December 2023, our fieldwork unfolded in the heart of the Brazilian Pantanal, specifically in Porto Jofre and the Encontro das Aguas State Park. Additional activities took place in the urban landscapes of Sao Paulo, Cuiaba, and Pocone. The subsequent sections of this presentation detail the specific activities undertaken during this multifaceted research endeavour.

1. Participant Observation:

Observed the activities and interactions of stakeholders in the region and gather first-hand information about the relationships and conflicts that exist among local communities, tour operators, conservation organisations, government agencies, and other non-human entities such as jaguar. I documented my observations through field notes and photographs. Participant observation involves getting close to people and making them feel comfortable with the presence of the researchers, allowing observation about their lives unbiased by prejudice prestige or other effects.

In the case of this project, the method consisted of, first, helping in all daily activities that local people and scientists commonly engage in, for instance wildlife monitoring activities, tour operations, helping with fighting fires with locals in Porto Jofre and cattle grazing with Pantaneiro; secondly, attending meetings such as religious meetings, birthday celebrations, NGO meetings and governmental events; and lastly, participating in leisure activities which consisted mainly of football matches and of sitting in small groups and exchange news. Through participant observation I was able to build social relationships with local communities and then gradually pick up their local perspectives on tourism and coexistence with jaguars.



Attending NGO's and governmental events in Cuiaba, Mato Grosso.



*Participating in jaguar tourism operations.
Participating in wildlife monitoring projects.*





Cattle grazing and fire fighting in Jofre ranches.

2. Stakeholder mapping:

I used stakeholder analysis to identify and categorise the main stakeholder groups and evaluate how power, control, and influence are distributed among them. Through stakeholder mapping, I gained deep insights into the key stakeholders and understand their interests and influence on tourism and human-wildlife conflict in the northern Pantanal. I examined the power dynamics and relationships among stakeholders. Consider factors such as access to resources, decision-making authority, knowledge, and influence. Later, I identified power imbalances and hierarchies that shape the interactions and agency of stakeholders, including jaguars. By acknowledging the agency of jaguars as non-human actors in the stakeholder mapping process, I explored their impacts, needs, and vulnerabilities, as well as their potential influence on human stakeholders.



Stakeholder mapping with stakeholders in Porto Jofre.

3. In-depth interviews:

Understanding the complex dynamics between humans and jaguars necessitates a nuanced approach, one that delves deep into the complexities through qualitative methods, such as in-depth interviews. To construct meaningful interview questions, I drew insights from both stakeholder analysis and existing literature, ensuring a comprehensive exploration of the subject matter. In total, 40 in-depth interviews were conducted, involving a diverse spectrum of participants, including environmental researchers, government organisations, NGOs, tourists, guides, ecolodge owners, and local communities. These interviews sought to disentangle the complex web of relationships by examining how the actions of tourists and tour operators reverberate through the behaviour and habitat of jaguars, subsequently influencing the behaviour and livelihoods of local communities. The diversity of interviewees, each with distinct roles, histories, and connections to the area, provided a multifaceted perspective on the impact of tourism on human-jaguar coexistence. The interview material was transcribed, coded using the Atlas.ti 23 programme. This coding process involved labeling various themes, ideas, or concepts, ensuring a systematic organisation of the rich data set. Furthermore, employing content analysis, I precisely navigated through the coded categories, which emerged organically from the in-depth interviews. This inductive identification of categories allowed for a thorough exploration of patterns and insights, contributing to a nuanced understanding of the complex interplay between human activities, jaguar behaviour, and the intricate fabric of local community livelihoods.



Interview with local communities in Porto Jofre.



Left: Interview with Parque Sesc Baia das Pedras conservation director. Right: Interview with director of "IBAMA", Mato Grosso, Cuiaba.

4. Participatory mapping:

Participatory mapping with children in different two different school, one in the city of Pocone and the other in Porto Jofre village refers to a participatory and collaborative approach that involved children in the creation of maps to represent their own perspectives, experiences, and understanding of their environment. The primary objective was to empower children as active contributors to the discourse on biodiversity conservation, encouraging them to express their thoughts, experiences, and aspirations related to living alongside jaguars and the burgeoning jaguar tourism industry.

Initially, we engaged children in reflective discussions about their experiences living in proximity to the Pantanal and sharing thoughts about coexisting with jaguars. Subsequently, our approach evolved to include an educational component focused on the human-jaguar conflict. We employed a unique method using a children's book that not only served as a canvas for entertainment but also imparted essential knowledge about jaguar characteristics, behaviour and roots of human-jaguar conflict in Pantanal. Integrating entertaining and educational games into the programme further enriched the learning experience. To deepen their understanding, we encouraged the children to actively participate in mapping exercises. They mapped out jaguar habitats, identified protected areas, and marked locations frequented by

tourists. The insights gained from these mapping activities proved both fascinating and valuable. Throughout the entire initiative, we prioritised ethical considerations, ensuring that every aspect of the project adhered to ethical standards. The holistic nature of the activities fostered not only a sense of creativity and awareness but also a strong



foundation in ethical practices.



Mapping with School children in Pocone and Porto Jofre.

Conclusion:

My fieldwork in the Pantanal has been an immersive experience that has allowed me to dig more into complexity of human-wildlife coexistence in this unique ecosystem.

Through participant observation and conducting 40 in-depth interviews with diverse stakeholders, I have gained a deep understanding of the challenges and opportunities arising from growing tourism. From my interactions with local communities, tour operators, conservation organisations, and the elusive jaguars themselves, it is evident that sustainable jaguar tourism is not just a matter of ecological preservation but a delicate balance involving economic considerations, social dynamics, and cultural nuances. The coexistence of humans and jaguars in this region is a testament to the interconnectedness of our actions and the intricate web of relationships that define conservation efforts. Therefore, my fieldwork in the Pantanal serves as a foundational step in unraveling the complexities of human-jaguar coexistence. The knowledge gained here lays the groundwork for future endeavors aimed at fostering sustainable tourism practices, mitigating conflicts, and preserving the unique biodiversity that makes the Pantanal a critical natural treasure. Finally, my research contributes to collaboration with researchers from different fields and will create a network between social and natural sciences, especially in the Pantanal region for further investigations.