

Christian J. Rivera
Tropical Conservation and Development Program
Field Research Grant
Activities Report

Project Title: Complex Systems Approaches for Understanding the Exploitation and Conservation of Wildlife in the Peruvian Amazon

Location: Iquitos, Peru; Lima, Peru

Dates of Funded Research: July 6 – August 19, 2019

Summary of Activities

The unsustainable exploitation of wild living resources, for both lethal and non-lethal use, is a leading threat to the world's wildlife, particularly in the tropics (Rosser and Mainka 2002; Maxwell et al. 2016; Benitez-Lopez et al. 2017). A recent report quantified the hunting-induced declines of tropical bird and mammal populations across the tropics and found significant declines in abundances by 58% and 83%, respectively, in hunted compared to un-hunted areas (Benitez-Lopez et al. 2017). The Amazon basin is a global hotspot for biodiversity (Myers et al. 2000), and studies on hunting for direct consumption in the region have focused on rural contexts (Bodmer et al. 1997; Levi et al. 2009). However, urbanization has emerged as a leading driver of human migration from rural areas to urban and peri-urban contexts, with more than 70% of the population in the Brazilian Amazon living in cities (IBGE 2010). Despite human migration, urban and peri-urban populations still maintain links to wildlife from the forest, either through cultural ties to wildlife utilization or emerging commercial and non-commercial flows (van Vliet et al. 2014), yet little is known about the dynamics and impacts of these distant links.

The initial purposes of my field research were to travel to the urbanizing region of the Peru-Colombia-Brazil tri-frontier and conduct semi-structured interviews with informants at key conservation organizations and understand the role of exploitation as a threat to wildlife in the region, including factors that contribute to or mitigate the threat. Moreover, I sought to narrow down research questions and identify key variables to measure for my long-term doctoral study, as well as investigate the feasibility of potential field work. I began my interview work in the city of Iquitos, which is recognized as the capital of the Peruvian Amazon. Iquitos is a hub for the trade of wildlife and wildlife products, tourism, and all forms of research on the Amazon basin.

Once I began my key informant interviews in the city of Iquitos with staff and researchers from NGOs and government agencies, it became clear to me that this city could

potentially serve as an ideal site to pursue my research questions. Formal and informal conversations also revealed that there was a lack of organizations based in the tri-border region, which may hinder my research efforts. Nevertheless, I thought it would be fruitful to travel to the tri-border and try to identify environmental and conservation organizations focusing on wildlife exploitation issues. In summary, my trip to the tri-border region was quite short, as there was only one NGO focusing on the aforementioned issues. I met with the director of this organization and was reassured that Iquitos was the best site to narrow down and address my research questions due to issues regarding the feasibility of travel, partnering with organizations on the ground, logistics, and safety. I made an informed decision and decided to travel back to Iquitos and concentrate my efforts there.

Key outcomes from my preliminary field research included the following:

- Conducted 15 key informant interviews with staff and researchers at various NGOs and government agencies who focus on wildlife hunting, trade, and conservation.
- Established relationships with researchers and organizations who are willing to help me with my doctoral research in the near future.
- Gained a clear context of the research site and feasibility of future work through visits to wildlife rescue centers, wildlife markets, and the surrounding forest systems.
- Compiled key research papers and reports.
- Drafted an opinion piece titled “Toward Reconceptualizing the Trade of Flora and Fauna in Market Spaces”, where I propose that systems-thinking be applied to understanding the dynamics of wildlife market spaces, using the market in Iquitos as an example. The manuscript has now been submitted for review to a peer-reviewed journal.

In addition, I traveled to the capital city of Lima during the last week of my research period and attended the Second Primatology Congress of the Peruvian Association of Primatologists, where I sought to gain insights on where the field of Peruvian primatology is headed, particularly with issues dealing with the exploitation and conservation of primates in the Amazon.

I can sincerely say that although my trip was not entirely what I planned it to be, I managed to be efficient in my time through making informed decisions and capitalizing on the resources that presented themselves in the Peruvian Amazon and in Lima.

Future Research Directions

Now that I have returned to the University of Florida, I will analyze my key informant interviews and clearly narrow down research questions, variables to measure, and decide on key partnerships to continue developing with organizations on the ground. This effort will result in my dissertation proposal, which I hope to draft and defend by the end of Fall 2019. In addition, I hope to work towards publishing the manuscript on wildlife markets that is currently in review, and will seek to draft another paper based on the key informant interviews that details opportunities for research on the exploitation and conservation of wildlife in the Northeastern Peruvian Amazon. My goal is to draft my research proposal and grants based on the data gathered from this initial site visit and return to Iquitos the following year to execute my long-term doctoral projects.

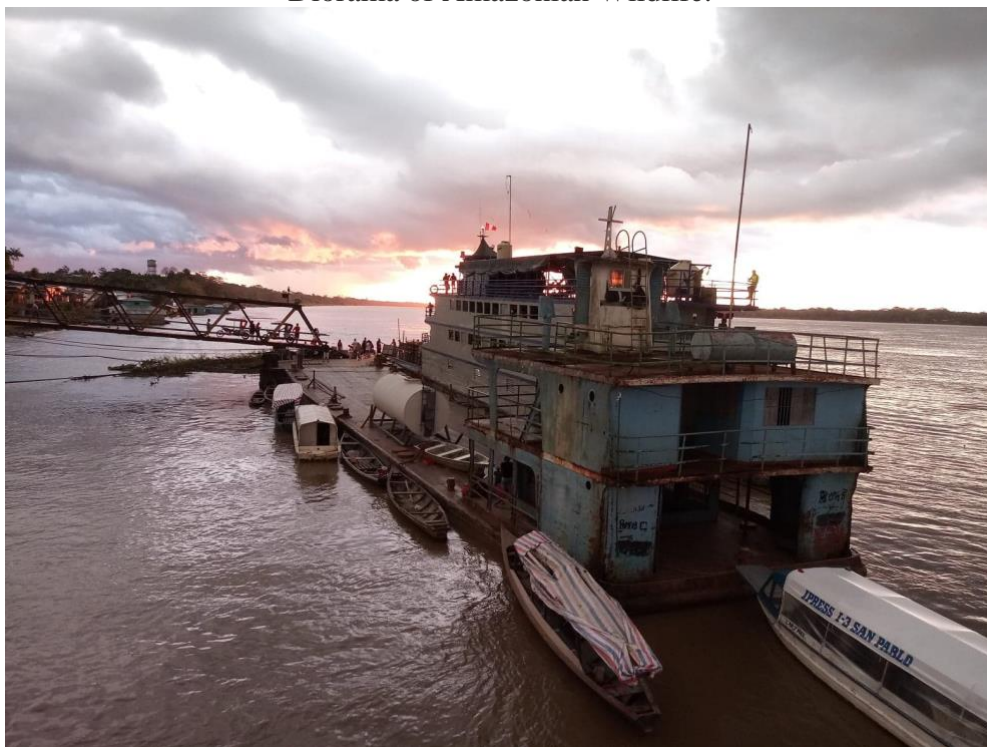
Pictures



Tortoises rescued from the illegal wildlife trade.



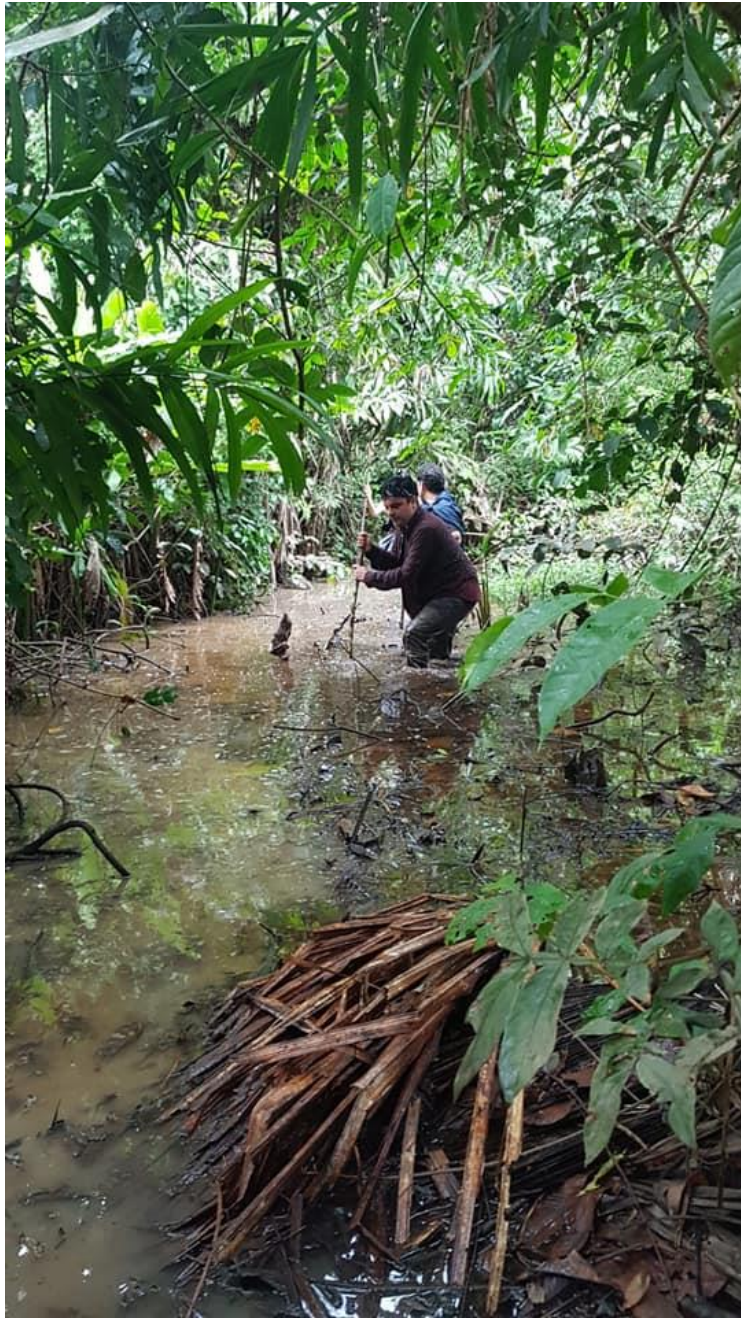
Diorama of Amazonian Wildlife.



Cargo ship in Iquitos, Peru.



Sunset over the Amazon River.



Christian J. Rivera exploring the terrain near Iquitos, Peruvian Amazon.



Water level in Iquitos, Peru, at the start of the field season.



Water level in Iquitos, Peru, at the end of the field season.

References

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