Project Update: July 2023

Objectives to date:

1. Jaguar home ranges, territories, and habitat use on the Maracá-Jipioca islands – Fully achieved.

2. Determine if there is a dispersion of individuals to the continent – Partially achieved.

We do not have faecal or visual (photos or videos) samples from individuals harbouring on the continent to establish a relationship with those on the islands.

3. Understand how the tidal dynamics affect the activity and the possible dispersion to the continent – Partially achieved.

We already know how individuals on the islands react to tidal oscillations, but we do not know how this relationship is during a possible crossing of islands/continent.

4. Meetings and workshops with the students and population of Amapá city to discuss the importance of the Estação Ecológica Maracá-Jipioca for the conservation of jaguars and the overall biodiversity in the region – Not achieved.

We still haven't started the meetings and workshops with the students and population of Amapá City. We plan to consolidate this objective also in August 2023

Difficulties to date:
The unforeseen difficulties that arose were related to bureaucracy and delay in receiving the resource via the partner institution and in the purchase of materials. This occasioned delay in the execution of the proposed steps and consequently logistical difficulties. Another consequence was the devaluation of the resource received due to inflation.

Outcomes so far:
The first result corresponding to the first objective (concluded with success), we present for the first time the home range of the population, where the males, with ~201 km² presented a home range 7,7 times larger than the of females (home range= 26,06 Km²). In addition, we present the actualised density, with 7,04 jaguars/100km² the result is the similarity that found by us four years ago, reinforcing that this remained stabilized population.

Another result corresponding to the first objective is the detection probabilities and the occupation of jaguars, which proved higher in wetlands and water-associated habitats such as lagoons, channels, and the sea, specifically on the beaches.

Our third result shows the fundamental relationship between jaguars and aquatic prey, the main items of their diet, who are opportunistically preyed on the rise of the tide. With this, we already know the influence of the tide on its diet, it remains to know its influence on dispersion.

Most significant achievement to date:
The innovative methodology used to estimate the jaguar´s home range as data from direct observation was summed with trap-cam records.

Involvement of local communities and how they have benefitted so far:
Except for the job offer generated directly by contracting local people for field expeditions, we have not yet concluded the stage of involvement of local communities.

Continuation:
Yes, there are plans to continue this work after completing the remaining objectives. We will deepen our analysis to find more results, continue monitoring the continent and intensify the involvement with local communities for the development of an application (analogous to iNaturalist.org) to identify jaguars based on photographic records, promoting citizen science.

Besides completing the remaining objectives, the next steps will consist of deepening the population analysis of the jaguars through GPS collars and further engaging the local population with citizen science.

Sharing results:
With the current results, we will produce two scientific articles to be published in an international periodical, a comic about the project, pages on social media, workshops and lectures in diverse institutions, and a citizen science application.

Use of Rufford logo:
We have not yet concluded all analyses to produce materials and/or divulgation, when the Rufford logo is used we will inform the foundation.

Team:
José Júlio de Toledo and Fabricio Baccaro oriented the analysis and to helping with the sample design. William Marques Ribamar worked in the sampling on the field and on sorting the data in the laboratory.