

Project Update: December 2019

### Trap Camera Monitoring

During 6 months of fieldwork, 217 sampling stations were set up in Argentina and Brazil (Figure 1). The total area sampled was 477,000 ha (minimum convex polygon), which makes this the largest survey carried out in the region to date, and the largest surveyed area to study jaguars in the world. On the Argentina side we installed 167 sampling stations, which operated an average of 35 continuous days each. The total effort on the Argentina side was 5,681 station/days. Almost 500,000 photographs have been reviewed, and with these results we will complete the population density analysis in the coming months.

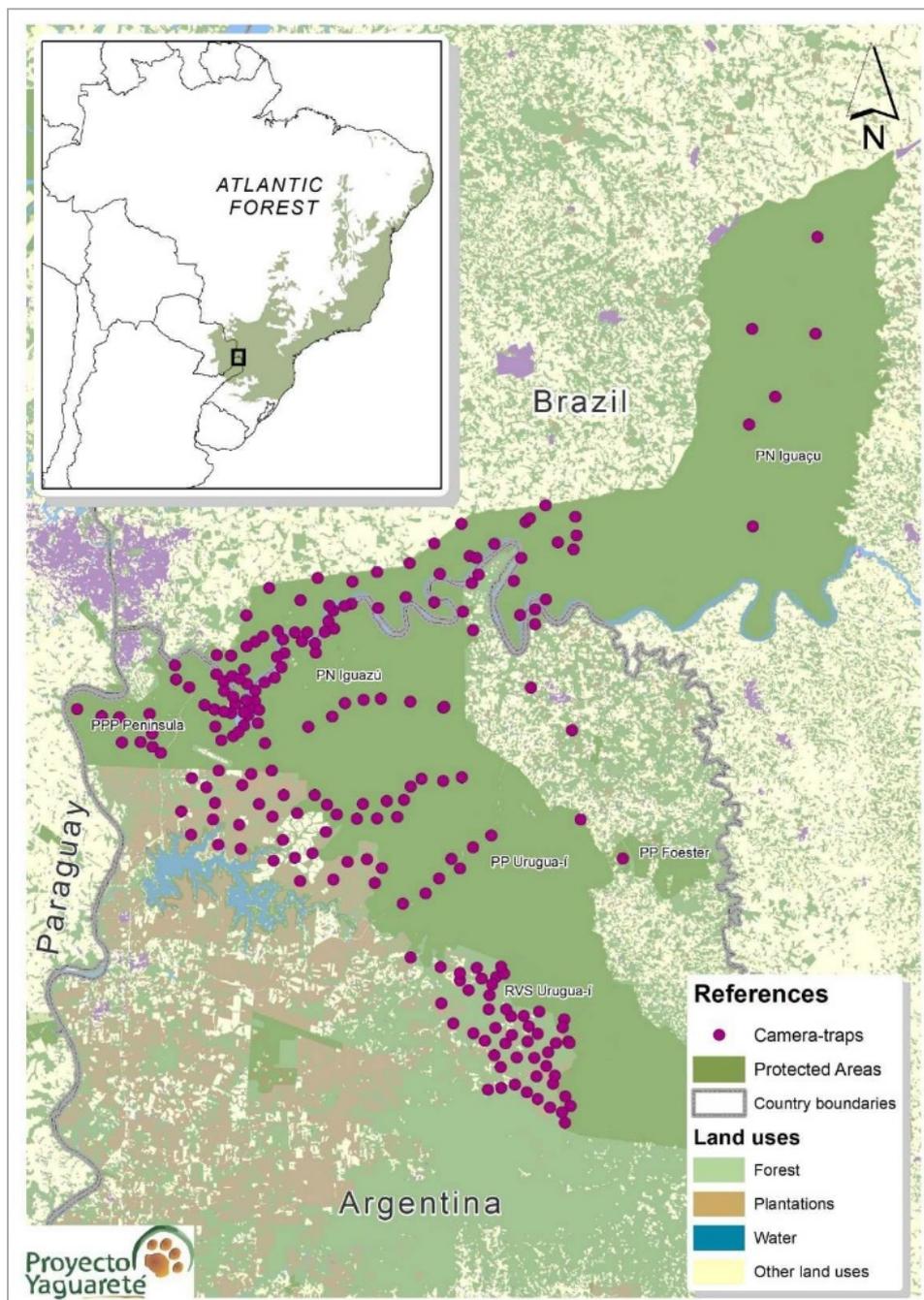


Figure 1 - Location of Intensive Binational Sampling Camera Trap Stations in the North of Misiones Province in Argentina and Iguazu National Park in Brazil.

### Collection and analysis of faeces from wild cats

We covered 11,839.4 km during 5 months, at an estimate of 2,992 man/hours (Figure 2). We retrieved a total of 263 scats, 63 that were classified as "large" or "very large" and 210 that were considered as "medium" or "small". Molecular analysis identified 18 jaguar and 12 puma scats within the group classified as large. The rest of the samples corresponded to ocelot (*Leopardus pardalis*) and southern tiger cat (*Leopardus gutulus*). In addition, DNA was extracted from the tissues/blood of 12 jaguar and 20 puma, collected from animals run over and/or captured in the last 15 years in the province, as well as from specimens of Misiones provinces belonging to the collection. In the next few months we will complete the genotyping of the samples collected and identified as jaguars, and other samples from the south of Misiones obtained by the participatory monitoring network. This year we have been able to optimise the use of 10 microsatellites in the lab. Because of this, we hope to be able to identify quickly at an individual level each one of the samples collected.

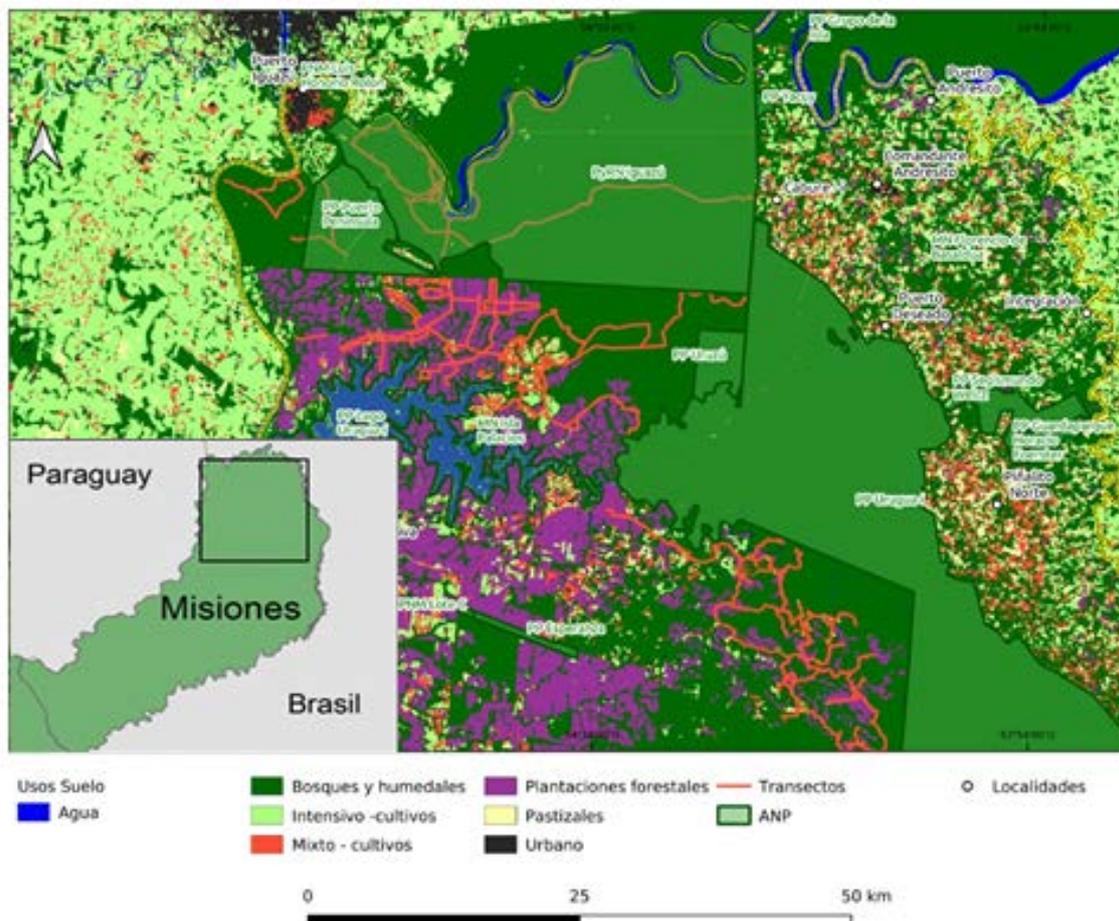


Figure 2. Map of the sampling area in the province of Misiones. Orange lines represent the transects where feline faeces were searched.



Figure 3. DNA extraction in the laboratory of the Argentinean Museum of Natural Sciences



Figure 4. Photography of a female jaguar with a cub, obtained during the trap camera survey.