

Project Update: July 2019

Camera-trap survey

During the last months, I completed the sampling and the screening process related to the camera trap fieldwork. Some of my camera traps were, unfortunately, stolen or damaged. To continue the sampling these cameras were replaced by cameras borrowed from other researchers. Due to the RSG support, new equipment could be purchased and this part of the project could be completed. We recorded at least one focus species in each area (Fig. 1). The next step is analyse our data.



Fig. 1. In the first line, landscape photos of the five areas where we perform camera trap sampling. In the second, my field team: Thanks to Paula Horn, Flavia Tirelli, Gisele Bolze, Paloma Linck, Vicky Gravez and Jonas Lescroart. In the last line, some of our records during this project.



Fig. 2. All process steps for obtaining mustelid chemical profiles from fecal samples. A- Samples of captive animals received from zoos. B- Milling and drying process in BIMALab, Porto Alegre. C- Photo of the building where is the Metabolomic Laboratory (MetaLab), Rio de Janeiro. D- Our procedures lasted two weeks at the Federal

University of Rio de Janeiro, Rio de Janeiro. E- The samples were extracted and stored in freezers until the time of injection in the chromatograph. F- Chromatograph used in our laboratory procedures. G- Researcher Clarisse Torres teaching me how to operate the equipment. H- All the staff that helped me during the procedures at MetaLab. Thank you very much, especially Professor Rafael Garret.

Chemical identification

The chromatograph equipment, available in my university, unfortunately broke. Due the RSG support it was possible to look for an alternative equipment in another university. I made a new partnership in the Metabolomic Laboratory at Federal University of Rio de Janeiro and there I was able to successfully perform the entire experimental process. Moreover, due this partnership a new and broader approach to chemical communication could be undertaken, refining the method in the chemical discrimination of species (Fig. 2.).

Diet

I have already initiated fecal sampling of Neotropical otters in two areas designed to investigate changes in mustelid diets in different landscape preservation contexts (Fig. 3.). I have 30 samples at this moment. I still need 50 samples that must be sampled in the next four fieldworks.



Fig. 3. Generally, otter droppings are deposited near watercourses. Faeces can be found on no submerged rocks, on riverbanks and even under bridges. These photos are registered during my fieldwork in Aparados da Serra National Park.