

Project Update: June 2018

1) Social science

A group meeting with stakeholders from Ankaratra was held last year to transmit information about my project and to get general information about the current situation in the Ankaratra Massif. Topics discussed were: my target species and their habitat, possible threats and the perception of local people toward conservation of the forest and the frogs. After analysing the results from these interviews and with my personal field observations, I concluded that the biggest threat faced by my two study species of frogs and their habitat is charcoal production, which causes forest loss and erosion. Therefore, I decided to conduct another interview in aluminium potteries in Ambatolampy in April 2018 to find out whether there is a connection between the excessive illegal activity inside the Ankaratra Special Reserve and the aluminium potteries, as there is a weekly charcoal transportation by truck from Ankaratra. Each small pottery uses an average of three bags of charcoal per day and there are lots of small potteries and also some big ones in Ambatolampy, which results in a very high demand in charcoal.

Despite of this threat, VIF (Vondron' Ivon' ny Fampanandrosoana), the forest manager, has recently strengthened the conservation action through forest patrols.



Left: Aluminium pottery in Ambatolampy. Right: Charcoal production inside Ankaratra Special Reserve

2) Frog survey

I also conducted a repeated survey of *Boophis williamsi* to estimate its abundance. During the day, *B. williamsi* has the same behaviour as its sympatric species *Mantidactylus pauliani*: they both live inside streams, hidden under rocks. In the case of *B. williamsi*, the chance to encounter them at night is much higher though, because it is an arboreal species that gets out of the water and sits on leaves along the stream. There they can easily be spotted. Tissue samples were collected for genetic analyses. I also investigated new sites in Ankaratra Massif and discovered some previously unknown, new populations. Moreover, one site was previously reported to harbour *B. williamsi*. However, due to charcoal production this site is severely destroyed and the stream partly disappeared due to erosion of the riparian habitat. Even after repeated surveys in different seasons, I could not detect any *B. williamsi* or *M. pauliani* anymore.

Since *B. williamsi* has a very well visible natural marking/pigmentation pattern, I started to use photographs as a tool for individual recognition, which allows me to conduct a non-invasive mark recapture study.



Left: *Boophis williamsi* natural pigmentation. Right: *B. williamsi* sitting on leaf at night



Me testing the water quality.