

## Project Update: February 2016

### 1- Timetable of the research

Table 1: Timetable of the research in Ranomafana National Park (RNP)

2nd September 2015	2nd September 2015	3rd September 2015	4 <sup>th</sup> September to 16th November 2015	17th November 2015	December 2015- January 2016
Leave Tana to Ranomafana National Park at 7 a.m.	Arrived at CVB Ranomafana at 10 p.m.		Preparation of equipment	Give a preliminary report to MNP	Data analysis (for dissemination of the result to IPC in Chicago in August 2016, and for article)
		Meeting with the Director of Madagascar National Park (MNP) and the staff committee	Trapping session of <i>Microcebus rufus</i> and <i>Cheirogaleus</i> in Talatakely and Campement site	End up of data collection for year 2015	Renew research permit (probably getting in 2 months)

### 2- Trapping session: Capture and release

We have collected our data at Ranomafana National Park a 43,500 ha continuous rainforest located in southeastern Madagascar (21°16' S, 47° 20' E). We have studied *Microcebus rufus* (Lesson, 1840) and *Cheirogaleus crossleyi* (A. Grandidier, 1870) in the Cheirogaleidae. They are sympatric and adopt a similar rhythm of activity (nocturnal and may enter periods of seasonal torpor akin to hibernation).

We have used 40 standard live traps covering 500 m of trail in RNP, such as Sherman live traps (22.2 cm x 6.6 cm x 6.6 cm) for capture of *Microcebus* and tomahawks for *Cheirogaleus*. Trapping methods is based on methods used by Wright and Martin (1995), Atsalis 1999, Blanco, 2010 and Zohdy et al., 2012). In the site, aluminum Sherman live traps (22.2 x 6.6 x 6.6 cm) and tomahawk traps will be set 25 m apart and 10 m back from trails, no more than 3 m from the ground for the Sherman traps and more than 6 m for the Tomahawks. The position and location of each trap will remain constant. Traps baited with banana will be set 6 nights per week, and set before sunset, around 4:00pm, and checked at 10:00pm.

We have released each individual at the place where we have caught them at the same night.



*Figure 1: Trapping session, the first picture showed sherman traps (1,5m above the ground), the second pictures showed how to install tomahawks trap, last picture showed the researcher released one dwarf lemur*

### 3- Collecting Data

All individual captured (mouse and dwarf lemur) bring back to the laboratory, taken the following variables to evaluate nutritional status: body weight, body size, circumference of tail, circumference of chest and waist, and also circumference of biceps and thigh, characteristics of teeth, tissue damage, hematocrit and biochemical indices from blood samples. We marked the animals using individual using microchips AVID, put radio collar for the random individual (2 males and 2 females for each species) to allow feeding observation. During the capture process no anesthetization.



*Figure 2: first picture: Dwarf lemur in Tomahawks traps, second picture showed a mouse lemur, and the last picture showed control of individual ID with scanner*



*Figure 3: collection of blood chemical indices and morphometric data*

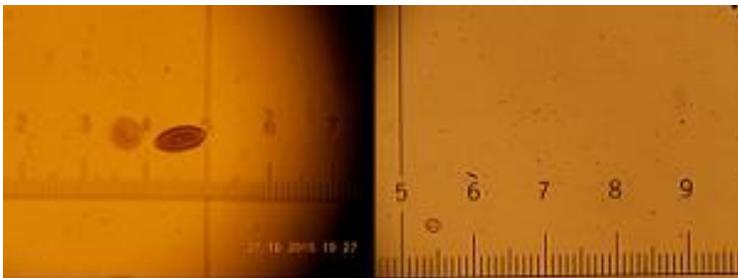
In addition for the infectious disease analysis, we have checked the presence of ectoparasite on body, such as fleas, lice, ticks. We collected them and store in 90% of ethanol for identification. We have also collected feces from the traps and directly from the anus to detect the presence of gastrointestinal parasite. Two ways of methods was used: fecal flotation and fecal sedimentation.



*Figure 4: Gastro-intestinal analysis from flotation technic, and a Sedimentation technics*

#### 4- Preliminary result

We have captured 50 mouse lemur and 27 dwarf lemur. And we have found that all mouse lemur are infected by nematode and cestode worm, and there was some individual from campsite infected by lice. However, dwarf lemur was infected by protist (Coccid).



*Figure 5: Nematode eggs and a sporocyst from Mouse and Dwarf lemur*

Remark: we have noticed to MNP that we didn't follow the animal for feeding observation because of problem with the frequency of radio collar (an overlapping frequency with other lemurs).