

Project Update: September 2014

The last trip of this grant took place from 1st to 17 September 2014 and had the following objectives:

1. Meet with the local stakeholders we missed last time to discuss a few issues related to the reserve,
2. Visit some caves for some observations and sampling, and
3. Have an idea of how the peoples trained last time have evolved to empower them for further observations in the field.

We left Bukavu on Sunday 31 August and travelled to Goma - Beni - Mt Hoyo for a few activities. This coincided when WCS had also planned a census of large mammals, plants and birds. The two last taxa were only sampled for 10 days while the large mammals were sampled for 24 days. Our team was in the field for 14 days. Added to this, a time for a meeting and also continue the training with our team in order to empower them for further work in the field.

Activities

1. A meeting with the local stakeholders
2. Continue the training for the team we worked with in April,
3. Sampling and see the situation of the caves.

Methods

1. 1.A formal meeting was planned to discuss the issues as all the important administration peoples were available. The topic was discussed in advance by phone with Mrs Rachel Droma, the local county Administrator. She accepted to take the lead and invite the participants and chose the location of the meeting. Well trained, she has collaborated with the Okapi Faunal Reserve peoples in sensitizing the local chiefs. She has a very good understanding of conservation issues and can well link it with economy and human welfare.
2. The training consisted of using field guides to continue training the rangers and also two intern students at honours' level (here, it takes two years) that came for a 45 days internship. The training had to take two days using three field guides: Mammals of Africa (Stuart & Stuart), The mammals of Southern African sub region (Stuart & Stuart), the bats of southern Africa (Monadjem et al. 2010).

Sampling

Sampling using trapping and mist netting for small mammals (rodents and bats) to make a final list of species for the reserve. The main issue was to see which species occur in caves. After us, since they have 45 days internship, they had to continue with the WCS inventory teams. But before we left, they decided to have topics for their honors' theses. We discuss the topics after formulating. Samuel want to work on bats: diversity and use in their tribe's traditions (kind of ethnozoology).

Fieldwork was done every day at night. While during the day, we did normal rat and mice trapping using Sherman live traps and pitfall buckets to collect mice, rats and shrews. Traps were set for 4 nights before shifting the site. Animals were collected every morning. Identifications were done following up to date keys and standard measurements were taken such as total length, weight, length of the hind foot, of the year and the forearm (for bats only). When identification was not sure, a few voucher specimens were collected and kept in alcohol for further work. Tissue samples were also collected and preserved in DMSO.



Fig. 2. After training, fieldwork. Sam (with the hut) and Chris (wearing yellow gloves) with the rangers that participated to the training now in the field near a cave under Mwanga's (with a blue jacket) supervision (photo P Kaleme). First photo, setting the mist net. The rangers completed the training that they started last time. Last photo, Chris removing a bat from mist net.



Figure 3: A Sherman live trap used in the field and a specimen one species collected whose distribution is reported this south for the first time.

Results

1. Meet with the local stakeholders

Before starting activities in the field, we had to visit some officials: the army commander and the Local Environment officer for the county.



Figure 4. left: The Administrator, hr deputy at her right, Environment officer at her left, the chief Army officer (Major), the chief warden, the deputy army officer (a captain). Centre: Mr Andiagbo Akaoma, chief of Sector. Right. 3 local chiefs: Bisa (left), Hapi (centre) and Okame (right).

The meeting was led by Madame the Administrator who, wisely managed everything and the objectively. Everyone was convinced that the management of the forest is important and that each member of the group and in the village has to make efforts not to go out of the objectives as discussed in the meeting. Peoples invited were the Environment officer, the Police, the army, the

local chiefs and the civil society. The chief warden and the chief of the administration sector were among the organisers.

The outcome of the meeting was:

- Local chiefs were given responsibility to sensitize their peoples on the usefulness of the forest and its importance for the livelihood of everyone;
- The recognition of the importance of the forest and the what is in for the stability of the region and the daily life of each one;
- The reserve management will work on some return that will be beneficial to local communities when tourism will start;
- This forest is the only inheritance that can be left to future generations. So, we need to keep it intact as much of it as we can.

Biological work

A total of 120 specimens (of which 47 bats) were recorded comprising 20 species of which 8 species of bats, 10 species of rodents and two species of shrews. Sampling was intensive. Two days were rainy and it was difficult to set-up the nets in the evening. Most of individuals (bats and rodents) were released after identification. No shrew was released as only two individuals were captured for which identification was not confirmed. We only collected very little voucher specimens for identification purposes and for blood samples for parasite analyse as requested by the Natural History museum of Copenhagen. The blood samples were collected in bats, rodents s well as shrews.

It is possible that we have good records of the mammals of the area even though we could not cover the whole reserve.

Species recorded

Table 1. List of bat species recorded in Mt Hoyo Forest Reserve

No	Common name	Species	Obs.
1	Jackson's Praomys	<i>Praomys jacksoni</i> (de Winton, 1897)	Mouse
2	Misonne's Praomys	<i>Praomys cf Misonnei</i> Van der Straeten & Dieterlen, 1987	Mouse
3	Veschuren's Praomys	<i>Praomys verschureni</i> van Der Straeten & Dieterlen, 1987	Rat
4	Striped mice	<i>Lemniscomys striatus</i> (Linnaeus, 1758)	Mouse
5	Striped mice	<i>Lemniscomys</i> sp.	Mouse
6	Dark-colored Bush-furred Rat	<i>Lophuromys aquilus</i> (True, 1892)	Rat
7	Dudu's Bush-furred Rat	<i>Lophuromys dudui</i> (Verheyen, Hulselmans, Dierckx & Verheyen, 2002)	Rat
8	Hybomys	<i>Hybomys univittatus</i> (Thomas, 1906)	Mouse
9	Allen's wood mouse	<i>Hylomyscus alleni</i> (Thomas, 1911)	Mouse
10	Common Oenomys	<i>Oenomys hypoxanthus</i> (Pucheran, 1855)	Rat
11	Greater long-fingered Bat	<i>Miniopterus cf. inflatus</i> Thomas, 1903	Bat
12	Natal long-fingered Bat	<i>Miniopterus natalensis</i> (A. Smith, 1834)	Bat
13	Angolan soft-furred fruit bat	<i>Lissonyscercys angolensis</i> (Bocage, 1898)	Bat
14	Giant leaf-nosed bat	<i>Hipposideros cf. gigas</i> (Wagner, 1845)	Bat
15	Noack's leaf-nosed bat	<i>Hipposideros vittatus</i> (Noack, 1893)	Bat

16	Egyptian Rousette	<i>Rousettus aegyptiacus</i> (E. Geoffroy, 1810)	Bat
17		<i>Crocidura lanosa</i>	Shrew
18		<i>Crocidura</i> sp.	Shrew
19		<i>Thamnomys kemp</i>	
20		<i>Mus musculoides</i>	

Birds species were also collected of which the common Bulbul, the social weavers, etc.

One important finding was that some species (at least five) collected the other time were not present. Special efforts were made by mist netting during the day in caves. This led us to the conclusion that these species might have migrated for some reasons that are to be investigated. This can be the next phase of observations to make for at least two years to make sure the observation can be changed into a conclusion.

Threats

After our last trip, there was an attack in the reserve. This happened when a group of local militias were to loot in villages crossing the reserve. The army was called to investigate and pursue the assailants. The strategy was to go with the rangers and make an obstruction in the path they used to cross the reserve. The troops surprised them partying, they did not imagine the troops were looking for them. The rebels left everything and were dispersed while some of them were killed.

During this trip, at the meeting, it was decided our teams should be accompanied by the rangers and soldiers. Some other soldiers were placed in corners of the reserve to come to help when necessary. This time, with the meeting held, it appears that misunderstanding with local peoples can be reduced and peoples can work in very good conditions.

Appendix - pictures



Left: The Meeting: Left: the chief warden (centre) with the army chiefs for the entity. Right: The environment officer giving his speech.



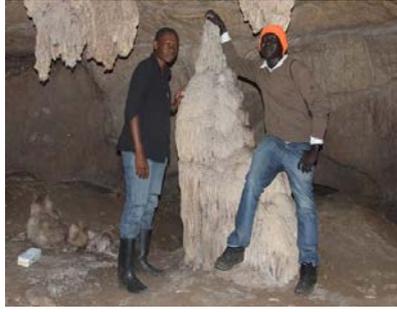
The security team (made of rangers and soldiers) during our work time in the reserve. Captain BAHATI (centre) using the GPS to locate the team that sent coordinate by text message in the satellite phone.



Left: Mwanga (with blue jacket) with the rangers setting up the mist net. Centre: Both intern students removing bats from mist nets. Right: The team in a cave during exploration (PK, second right near person with gun).



Some individuals captured. Most of them released after identification and standard measurements. Some others for which identification was not certain were collected as voucher specimens for further studies.



Cave's visit. Centre: the intern students. Right: the research team with rangers and soldiers after collection and mist netting in a cave.