

Project Update: June 2014

After the second trip, the situation on the way to the site was not so good with the DR Congo intention to finish with the Ugandan rebels, ADF NALU by the DR Congo forces. We had to monitor the situation in order not to get on a problem on the way to the field. Security at Beni, the main town on the way to the field has become very bad with (kind of terrorist) attacks on cars or houses. As we live approximately 700 km south of Beni (in a country where there is security concern on the road), it took a while before we had news that we could go without any problem. After many occasions of discussions over the phone with Mr Balikwisha, the Chief Warden, we agreed on the dates to go for the fieldwork.



Figure 1. P. Kaleme (left), a ranger, the Chief Bisa and Chief Emmanuel Sabuni (two stakeholders), and Mr Jacques Mwanga (right) at the camp when back from the field. Figure 2. Resting with a cool drink.

We coordinated with WCS colleagues at Goma to make trip arrangements and all was made possible. Leaving Bukavu became difficult with a ferry and boats drivers' strike. This took about two weeks but at least, we reached Goma and flew to Beni on 16 April 2014 to Goma. After a night in a hotel, we flew to Beni in the afternoon and the same day, hired a car to Komanda, the nearer town to go to the forest. But we stayed at the ranger's camp, 12 km from the town where it is closer to go to the forest.

In meeting with ICCN (Institut Congolais pour la Conservation de la Nature), since the university schedules are difficult to accommodate with our program, we decided to train rangers in sampling bats. The next day (17 April), a team went for shopping at Komanda (part of the shopping took place at Beni), for things that could not be found at Komanda (such as alcohol, batteries,...) and after they were back, activities began to avoid o loose time.

The objectives of the trip were:

1. Discuss with local stakeholders on the importance of Mt Hoyo for conservation and the development of the region;
2. Train rangers on techniques to collect and identify bats
3. Conduct a sampling of bats and other small mammals (as well as record other large mammals) in the area.

Activities

1. Visit the government officials (Army officer and environment officer) since the Administrator of the area was in a session at Kinshasa,
2. Train the team,

3. Sampling, and
4. Discussion with the stakeholders.

Methods

The methods consisted respectively of:

1. For information to government officials, meet them in their offices and discuss on the aim of our trip and the importance of bats for agriculture and other ecosystem services. We met with the police and army officers, the Environment officer and some other services. After an introduction by the chief warden, discuss the problems of conservation and their supports at this stage. Both were keen to support the conservation activities of Mt Hoyo. The Environment officer has worked in a project at the Okapi Faunal Reserve and was well aware of conservation challenges in the region and promised his full support when possible. The police and army officers were very collaborative and understanding. The army officer has always been supportive to the reserve activities in exchange information and services.
2. Give them module in French and part in Swahili. After the theoretical part, practical in the forest to set mist nets and remove animals.
3. Set up traps and mist nets and collect animals. Make check lists and analyse data after loading them in the computer.
4. Meet with local chiefs and the other village notabilities to discuss the need for them to understand this forest bloc and its conservation for the future generations. Also, work with them on the need to keep it intact for the services it renders because losing it might be a big problem in the future. All the areas in the surrounding has been sold to private owners for plantations and crop fields. If the trend is not stopped, it is possible that the whole area may be destroyed and lose all the biodiversity it contains.

Visit the government officials

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



Figure 3. Up, left: In the Environment officer's (centre wearing green) office at Komanda. Up, right: The army commander at Komanda. Down, photo with the team with the commander at his home.

Train the team

Five rangers were prepared to be trained. Conditions were discussed with the chief warden and each one should have started secondary school and have a good understanding of French. The program comprised a module on importance of bats, how to identify bats and also how to collect them in the field.



Figure 4. During the beginning of the training. Left, the chief warden with one of the trainees. Right, the other rangers at the camp after coming back from removing bats. Chief warden (2nd from left near Mwanga) participated to the session. With the short, one of our trackers (a pygmy)

The training took place at the ranger's camp for two days. The remaining part had to be done in the forest because it should include practical aspects. They comprised how to use a field guide, how to set-up mist net how to remove animals in the net.

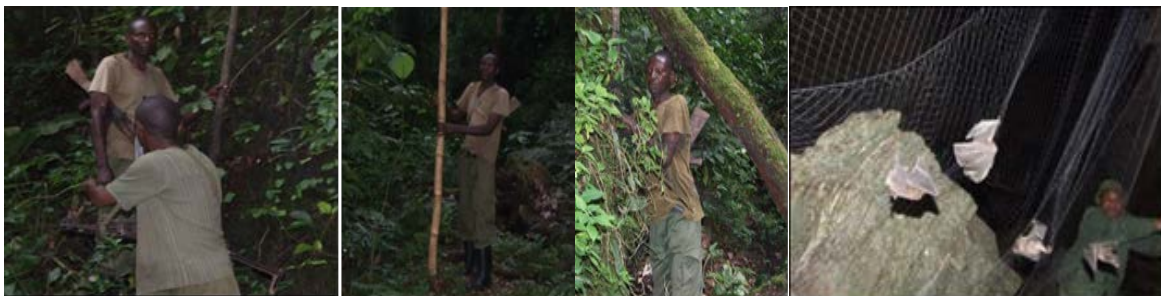


Figure 5. Rangers setting mist nets (as part of the training). Bats captured in the mist net: the team members learn how to remove bats to avoid bites (with or without gloves).

Sampling - methods

The second set of activities was the sampling. We were prepared to collect bats and other small mammals. Equipments were prepared for that comprising mist nets and traps (Museum spatials, Victor rat traps and pitfall buckets).

Traps were set in lines, divided into two teams each time. Mist nets were also set in lines of three.

Two weeks of sampling consisting of recording rodents, birds and bats. We also recorded large mammals in line transects using their signs and also asking local peoples if they could identify animals from photographs in the mammal's field guide. Bats and rodents were directly identified in the field. While birds were kept in alcohol for further identification by specialists (bird team was meant to go to the field afterward).

In two weeks of sampling, there was much work, but with the rangers trained, the task became so light and we could experience the joy of working in a very rich environment where many species occur. We could not sample in the savannah even though we have interest. We hope to work in this habitat when possible to record the diversity of bats, small mammals or other larger mammals (even bird) and compare with the forest habitats.

At this time, it is not possible to provide the bird lists (or the numbers) because the team of specialists went after we left and is only leaving the field now.

Results

A total of 350 specimens (of which 280 bats) were recorded comprising 27 species of which 13 species of bats and 14 species of rodents. Sampling was intensive apart from some days that were rainy and where it was difficult to go set-up the mist nets in the evening. Most of individuals were released after identification. We only collected very little voucher specimens for identification purposes.

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	Common Malacomys	<i>Malacomys longipes</i> Milne-Edwards, 1877	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 cf. dudui</i> W. Verheyen, Hulselmans, Dierckx & E: Verheyen 2002	Rat
8	Woosnam's Bush-furred Rat	<i>Lophuromys woosnami</i> Thomas, 1906	Rat
9	Ruwenzori Hybomys	<i>Hybomys cf. lunaris</i> (Thomas, 1906)	Mouse
10	Stella Hylomyscus	<i>Hylomyscus cf. stella</i> (Thomas, 1911)	Mouse
11	Roof Rat	<i>Rattus rattus</i> (Linnaeus, 1758)	Rat
12	Common Oenomys	<i>Oenomys hypoxanthus</i> (Pucheran, 1855)	Rat
13	Green bush Squirrel	<i>Paraxerus poensis</i> (A. Smith, 1930)	Squirrel
14	Ruwenzori sun Squirrel	<i>Heliosciurus cf. ruwenzori</i> (Schuann, 1904)	Squirrel
15	Red-legged sun Squirrel	<i>Heliosciurus rufobrachium</i> (Waterhouse, 1842)	Squirrel
16	Ruwenzori Horseshoe Bat	<i>Rhinolophus cf. ruwenzori</i> Eric Hill, 1942	Bat
17	Franquet's Epauletted fruit Bat	<i>Epomops franueti</i> (Tomes, 1860)	Bat
18	Greater long-fingered Bat	<i>Miniopterus cf. inflatus</i> Thomas, 1903	Bat
19	Natal long-fingered Bat	<i>Miniopterus natalensis</i> (A. Smith, 1834)	Bat
20	Angolan soft-furred fruit bat	<i>Lissonyscerys angolensis</i> (Bocage, 1898)	Bat
21	Sundevall's leaf-nosed bat	<i>Hipposideros cf. caffer</i> (Sundevall, 1846)	Bat
22	Giant leaf-nosed bat	<i>Hipposideros cf. gigas</i> (Wagner, 1845)	Bat
23	Noack's leaf-nosed bat	<i>Hipposideros ruber</i> (Noack, 1893)	Bat
24	Egyptian Rousette	<i>Rousettus aegyptiacus</i> (E. Geoffroy, 1810)	Bat
25	Woermann's fruit bat	<i>Megaloglossus woermanii</i> Pagenstecher, 1885	Bat
26	Hammer's headed fruit bat	<i>Hypsignatus monstrosus</i> H.Allen, 1861	Bat

27	African straw-collared Fruit Bat	<i>Eidolon helvum</i> (Kerr, 1792)	Bat
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Other mammals

While looking for funds for an inventory of large mammals in the reserve, we continued to collect evidence of the large mammals and the information using a transect to collect large mammals' signs and also use the mammal field guide and discuss with team of hunters and local chiefs to confirm the presence of some species. The list is presented in Table 2.

Table 2. List of large mammals recorded in M Hoyo Forest Reserve.

No	Scientific names	English names
1	<i>Cephalopus</i> sp.	Blue duiker
2	<i>Cephalopus dorsalis</i>	Yellow backed duiker
3	<i>Cephalopus nigrifrons</i>	Black front Duiker
4	<i>Neotragus batesi</i>	Pygmy antelope
5	<i>Cenetta tigrina</i>	Tigrine Genet
6	<i>Genetta servalina</i>	Servaline genet
7	<i>Atherurus africanus</i>	Porcupine
8	<i>Syncherus caffer</i>	Buffalo
9	<i>Profelis aurata</i>	Golden cat
10	<i>Panthera pardus</i>	Leopard
11	<i>Tragelaphus eurycerus</i>	Antelope Bongo
12	<i>Tagelaphus spekei</i>	Sitatunga
13	<i>Tragelaphus scriptus</i>	Bushbuck
14	<i>Okapia johnstoni</i>	Okapi
15	<i>Colobus angolensis</i>	Black Colobus
16	<i>Cercopithecus mitis</i>	Blue monkey
17	<i>C. ascanius</i>	Red tailed monkey
18	<i>C. hamlyni</i>	Hamlyn monkey
19	<i>C. l'hoesti</i>	L'hoest guenon
20	<i>Procolobus rufomitragus</i>	Red Colobus
21	<i>Lophocebus (Cercocebus) albigena</i>	Cercocebe noir
22	<i>Papio anubis</i>	Olive Baboon
23	<i>Pan troglodytes</i>	Chimpanzee
24	<i>Perodicticus potto</i>	Potto
25	<i>Galago demidovii</i>	Dwarf galago
26	<i>Hylochoerus meinertzagani</i>	Giant forest hog
27	<i>Potamochoerus porcus</i>	Red river hog
28	<i>Manis gigantea</i>	Giant pangolin
29	<i>Manis tricuspis</i>	Pangolin
30	<i>Trynomys swinderianus</i>	Cane rat
31	<i>Dendrohyrax arboreus</i>	Tree hyrax
32	<i>Orycteropus afer</i>	Harwaak
33	<i>Rhinoceon cirnei</i>	Elephant shrew
34	<i>Hyemoschus aquaticus</i>	Water Chevrotain
35	<i>Nandinia binotata</i>	African palm civet

36	<i>Atilax paludinosus</i>	Water mongoose
37	<i>Profelis aurata</i>	Golden cat
38	<i>Atherurus africanus</i>	Porcupine

The list is not exhaustive as only part of the reserve was covered for this census. It is possible that the following days' work can increase the species numbers.

Threats

Since the wars in the eastern DR Congo, the area was secure and still. At the time we reported to the army officers, we were told that security might be a problem as a rebel fraction sent a letter to the army officer that they would visit this part. We are thus told to be cautious as things might become worse sometimes.

A few days later (after we have left and while the bird's team was in the reserve), local peoples arrested two rebels and took them to the local government officials. At the time we are writing this report, the bird team has suspended the work because, there was fighting between the local army and a rebel fraction (we do not know which one). The villages in the reserve have been evacuated and the team asked to stop the work.

Of these, the bats constitute the traditional menu for local peoples. They are hunted and sold on local market. There may be a time when populations might decline. Which may be a problem.

Appendix – pictures



Left: The visit to the Environment officer. up front left, the chief warden. at the centre (wearing green), Environment Officer. Right: A meeting with Chief Bisa and his notability, Emmanuel Sabuni with us and the rangers.



Left: Mwanga crossing the bridge before getting back on his motorbike. Right: Both drivers with their motorbikes after crossing a bridge.



Left and centre: training to set up mist nets. Right: Removing bats in mist nets at a cave entry.



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.



Left: At work in the forest. Collecting the materials to go back and at the worktable at ranger's camp. Centre: a large squirrel (on the worktable) gotten from the Chief's notable (sited, left). Middle: Rest after work at the camp (the ranger). Right: After work, enjoying the life in nature.