

Project Update: October 2018

Specific objectives:

- Document bat species diversity, composition and distribution across four different habitat types in the southern Cameroon.
- Carry out awareness campaign in some local populations on the importance of bats.



Atagana removing a bat from the mist net

FIELD WORK

Bats have been investigated in four habitats during four periods of fieldwork. June, July, August and September 2018. Six mist nets for the two first periods and ten mist nets for the last two periods were deployed during seven consecutive nights at the northern and western part of the Dja Biosphere Reserve. The following habitat types were investigated during this period: primary forest, secondary forest, agriculture clearing and human settlement (see Table 1). Mist nets were checked every 50 minutes from 6: 00 pm to midnight. Additionally, a cave located at Swarm village in the northern part of the Dja Biosphere Reserve and three trees located in Nsimalen village in the western part of the reserve were investigated during the day where 18 bats belonging to three species were caught.

Table 1: Sampling efforts within the four habitat types in the Dja biosphere reserve.

| Habitats | Number of nights | Number of nets used | Length of net (m) | Hours worked (h) |
|----------------------|------------------|---------------------|-------------------|------------------|
| primary forest | 7 | 46 | 414 | 42 |
| secondary forest | 5 | 40 | 360 | 30 |
| agriculture clearing | 8 | 54 | 486 | 48 |
| human settlement | 8 | 56 | 504 | 48 |

Species composition and abundance

A total of 127 individual bats belonging to four families, 11 genera and 14 species were captured (Table 2, Figure 1). Of these, nine species were captured in primary forest (figure2). Despite the high number of species in primary forest, more individuals were captured in human habitations, mainly due to the high number of *Megaloglossus woermanni* (n=19). Overall *Megaloglossus woermanni* a nectarivorous bat was also the most common bat (40.16%, n=51), followed by *Epomops franqueti* (18.90%, n=24) and *Rousettus aegyptiacus* (11.81%, n=15). Insectivorous bats represent 21.26 % of bat captured while frugivorous represent 78.74%.

Table 2: Number of bats individuals captured per habitation types

| Sub-order | Families | Espèces | Number of individuals captured per habitats | | | | Total |
|--------------------------|------------------|--------------------------------|---|------------------|-------------|-------------------|------------|
| | | | Primary forest | Secondary forest | Plantations | Human habitations | |
| Yinpterochiroptera | Pteropodidae | <i>Epomops buttkoferi</i> | 02 | - | - | - | 02 |
| | | <i>Epomops franqueti</i> | 10 | 03 | 07 | 04 | 24 |
| | | <i>Megaloglossus woermanni</i> | 2 | 20 | 10 | 19 | 51 |
| | | <i>Myonycteris angolensis</i> | - | - | - | 01 | 01 |
| | | <i>Myonycteris torquata</i> | 02 | 04 | - | - | 06 |
| | | <i>Roussettus aegyptiacus</i> | 04 | 01 | - | 10 | 15 |
| Yangochiroptera | Hipposideridae | <i>Hipposideros caffer</i> | 04 | - | - | - | 04 |
| | | <i>Hipposideros cyclops</i> | - | 04 | 07 | - | 11 |
| | | <i>Hipposideros ruber</i> | 01 | - | - | 05 | 06 |
| | Nycteridae | <i>Nycteris hispida</i> | - | - | 01 | - | 01 |
| | | <i>Nycteris thebaica</i> | - | - | 01 | - | 01 |
| | Vespertilionidae | <i>Neoromicia nana</i> | - | - | - | 01 | 01 |
| | | <i>Pipistrellus nanulus</i> | 01 | - | - | 01 | 02 |
| <i>Scotoecus hirundo</i> | | 02 | - | - | - | 02 | |
| Total individuals | | | 27 | 32 | 26 | 40 | 127 |
| Total species | | | 09 | 05 | 05 | 07 | 14 |

Awareness campaign in local populations

An awareness campaign was carried at some villages near capture sites. It consisted of explaining to local populations the morphology, physiology and ecological importance of bats using a live specimen. At the end of the explanation, populations were allowed to ask questions in order to clarify any doubts.



Explaining to children of local populations, the important role bats play in an ecosystem

Future Plans

- Further capture sessions.
- Data analysis.



Left: Crossing the Dja River to reach the Dja Biosphere reserve. Right: Removing bat in mist net.



Left: Removing bat in mist net. Right: *Hipposideros cyclops* in mist net.