

Progress Report May 2024

Based on information from the social science survey and the preliminary study, we have selected 6 villages (3 new) to sample: Sambolabo, Mayo Kelele, Mayo Dardawal, Fungoi, Mayo Waldekai and Mayo Selbe.

Identification and Localization of matrix categories (forest, grassland, wetland, and riparian), and each transect where standardized methods (Visual and acoustic scanning of microhabitats) were applied.

After obtained all the research permits, we carried out fieldwork to detect species abundance, richness and demography in sites that were not previously surveyed and additional sites that species are likely to occur as identified from the social science survey. The methods used were Opportunistic encounter survey and acoustic device.

We characterized frogs' habitat (canopy coverage, stem diameter at breast height, and vegetation density) following the methodology used by (Hillers et al., 2008) and 45x20m rectangular plots randomly selected.

So far, among the different villages we sampled during the dry season (October 2023 to March 2024), our sampling efforts have led us to have one of our flagship species *Cardioglossa alsco* in the Mayo Selbe village despite the ongoing threats on the different habitats of frogs around the Tchabal Mbabo mountain.

1. Sambolabo village:

Here, habitat type was mostly grassy savannah (Figure1). With the help of the team (figure 2), we have documented 4 species of frogs from 3 different genera.



Figure1: habitat type found around Sambolabo village.



Figure 2: Research team collecting the data near the Sambolabo village during the night survey: from the right to the left, we have the field guide, the field assistant, I (principal investigator) and the porter.

Site 1: Mayo Doube river

Here, we had 20 specimens of *Sclerophrys regularis* and 3 specimens of *Ptychadena mascarensis*.



Figure 3: *Sclerophrys regularis*

Site 2: Sarbo gari river

We found 4 individuals of *Afrixalus aff. fulvovittatus*, 4 specimens of *Sclerophrys regularis*, 7 specimens of *Sclerophrys maculata* and 8 individuals of *Ptychadena oxyrhynchus*.



Figure 4: A = *Afrixalus aff. fulvovittatus*; B = *Sclerophrys maculata* C = *Ptychadena oxyrhynchus*.

Site 3: Goumti river

We found 2 individuals of *Ptychadena mascarensis* in this site.

Threats:

The main threat here was due to the fact that locals were using water body housing the frogs to wash their maize and porridge, which greatly contributed to the pollution of the watercourse (Figure 5).



Figure 5: water body polluted by human activities around Sambolabo village

Breeding site

In Sambolabo, we had one breeding site of the *Sclerophrys regularis* in Mayo Doube river.



Figure 6: breeding site of the *Sclerophrys regularis* found in Mayo Doube river

Mayo Kelele village

Habitat type in Mayo Kelele was mostly gallery forest. Here we had 3 species from 3 different genera.

Site 1: Mayo Matelela

The survey of this site enabled us to have 3 individuals and 6 tadpoles of *Phrynobatracus* sp and 2 specimens of *Ptychadena oxyrhynchus*.



Figure 7: *Ptychadena oxyrhynchus*.

Site 2: Mayo Moussa

In this site, we found 4 individuals of *Afrivalus cf. vittiger*.

Site 3: Mayo Alim

We found 3 specimens of *Ptychadena oxyrhynchus*.

Threats:

The main threat here was due to the fact that this watercourse was overexploited because of its proximity to the maize field and the cattle that come here to drink the water (figure 8).



Figure 8: Watercourse Mayo Alim overexploited.

Breeding site

In Mayo Kelele, we had one breeding site of *Ptychadena oxyrhynchus* in the Mayo Alim river.



Figure 9: Breeding site of *Ptychadena oxyrhynchus*.

Mayo Dardawal village

Here we had 3 species from 3 different genera. Habitat type was mostly constituted of gallery forest.



Figure 10: Ntene Soh Branly installing the acoustic monitoring device near the water body during the survey around Mayo Dardawal village

Site 1: Mayo Oula

Here, we had 5 species of *Ptychadena oxyrynchus* and 15 specimens of *Xenopus sp.*

Site 2: Mayo Corboual

In this site, we had 5 specimens of *Xenopus sp.*

Site 3: Mayo Laidegardal

We had 4 individuals of *Xenopus sp* and 15 specimens of *Astylosternus sp* from this site.

Threats:

Around this village, the watercourses that are home to the frogs are the sources from which the animals come to drink (figure 11).



Figure 11: watercourse that is home to the frogs where animals come to drink.

Fungoi village

In this village, habitat type was essentially the forest gallery (figure 12). We had 4 different species from the same genera.



Figure 12: Landscape of the habitat structure harbouring the water body we sampled in Fungoi village



Figure 13: Principal investigator sampling for the morning survey on the site in Fungoi village.

Site 1: Mayo Sardoua

In this site, we have found 4 species of *Astylosternus*: 6 sp1; 3 rheophilus; 2 sp2; 4 sp3.

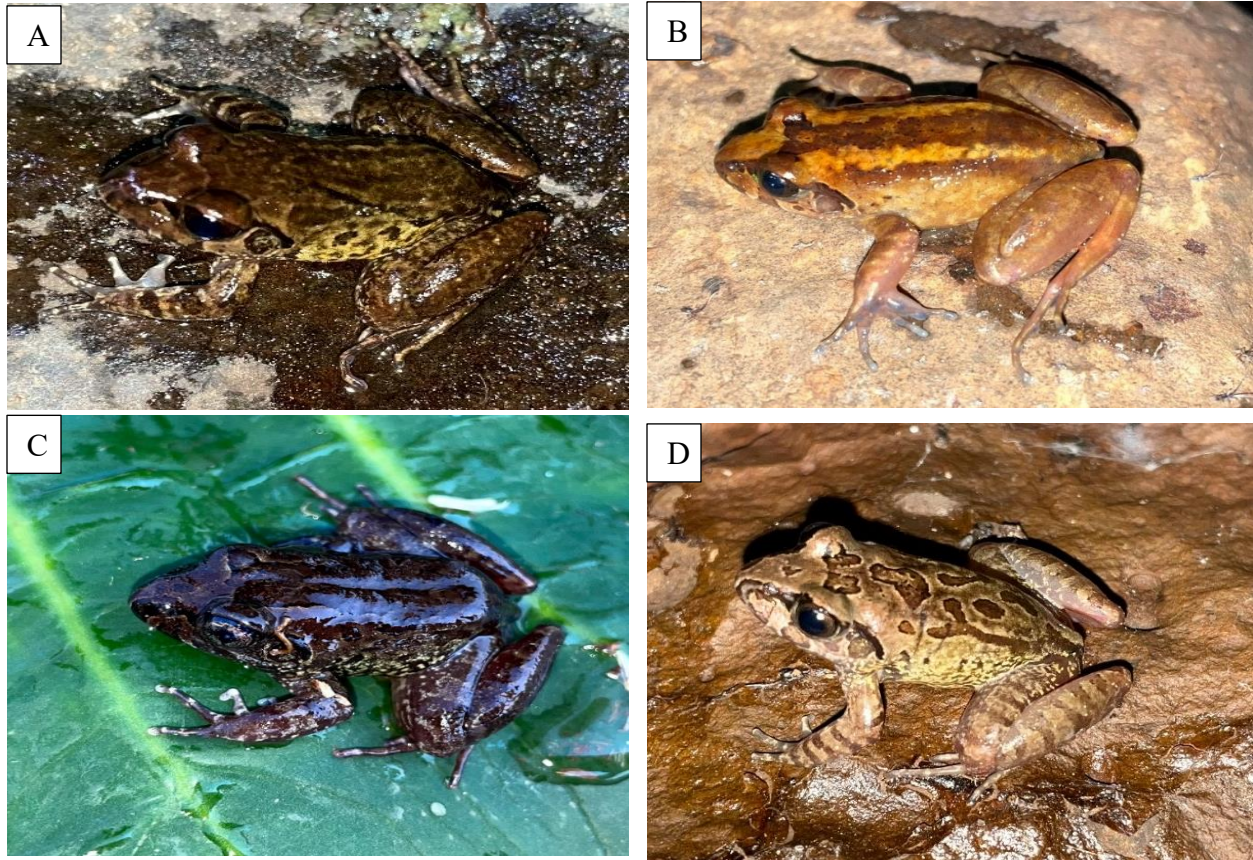


Figure 14: A= *Astylosternus sp1*; B= *Astylosternus cf. rheophilus*; C= *Astylosternus sp2*; D= *Astylosternus sp3*;

Breeding site

Here, we had & breeding site of *Astylosternus sp*.



Figure 15: Breeding site of *Astylosternus sp* at the Mayo Sardoua river, near the Fungoi village.

Mayo Waldekai village

Habitat type in this village was mostly gallery forest. In this village, we had 3 species from 3 different genera.



Figure 16: Landscape of the gallery forest harbouring the water body we sampled in the Mayo Waldekai village.



Figure 17: Principal Investigator using the net for catching some frogs and tadpoles.

Site 1: Mayo Fungoi

Here we had 5 individuals of *Arthroleptis sp.* and 6 tadpoles of *Astylosternus sp.*

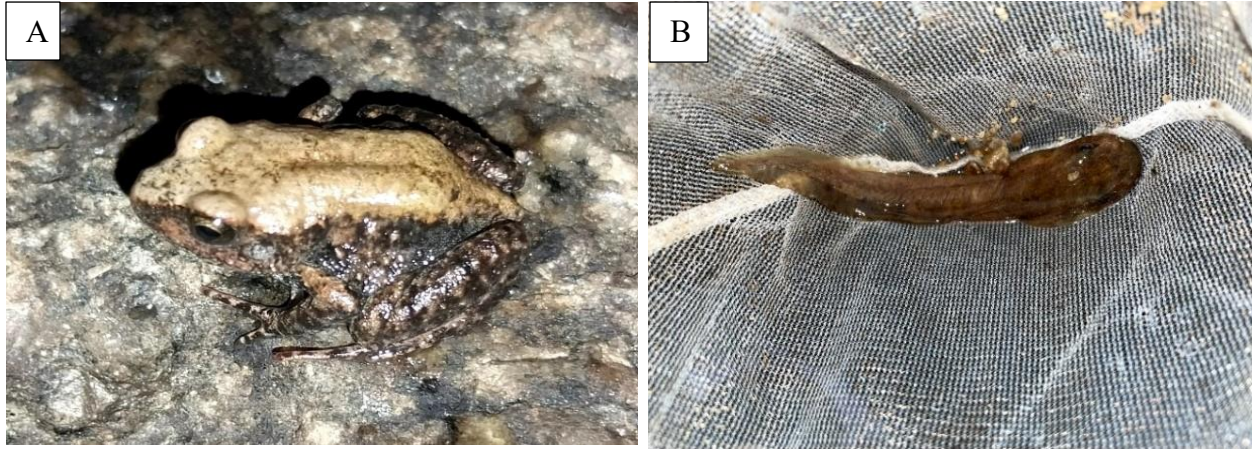


Figure 18: A = *Arthroleptis sp.*; B = tadpoles of *Astylosternus sp.*

Site 2: Mayo Waldekai

In this site, we had 16 individuals of *Xenopus cf oysoole*.



Figure 19: *Xenopus cf oysoole*.

Mayo Selbe village

Habitat type in this village was mostly gallery forest. Here we had 6 species from 6 different genera.



Figure 20: Landscape of the gallery forest harbouring the water body we sampled in the Mayo Selbe village

Site 1: Mayo Selbe

Here, we had 2 specimens of *Astylosternus sp1*; 3 specimens of *Cardioglossa alscó*; 8 specimens of *Astylosternus sp2*; 7 specimens of *Phrynobatrachus sp*; 3 specimens of *Arthroleptis sp*; 2 specimens of *Arthroleptis cf. palava*; 5 specimens of *Arthroleptis cf. variabilis* and 3 specimens of *Arthroleptis sp2*.





Figure 21: A = *Astylosternus sp1*; B = *Cardioglossa alsco*; C = *Astylosternus sp2*; D = *Phrynobatracus sp*; E = *Arthroleptis sp 1*; F = *Arthroleptis cf. palava* ; G = *Arthroleptis cf. variabilis* ; H = *Arthroleptis sp2* .

Threats:

The 2 main threats here were animal raising (Figure 22) and bushfires (Figure 23).



Figure 22: Animal raising documented around Mayo Selbe village.



Figure 23: Bushfire documented around Mayo Selbe village.