

## **Project update: February 2024**

# **On the poorly-known millipedes from the protected Bouda Ndjida National Park (Northern Cameroon) with implications for conservation**

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### **Objectives of the research**

The main objectives of the study are to:

- 1) document the composition, and occurrence of millipede found in the different habitat types;
- 2) assess the influence of habitat types and seasonality on millipede diversity;
- 3) investigate on the status and distribution preferences of the threatened and endemic species;
- 4) develop conservation measures to preserve threatened species and/or habitat.

### **Work**

From Nov 2023 – Jan 2024, we continued with the field research at Bouba Ndjida National Park (BNNP) under the sus-mentioned theme.

- As enunciated in our previous project update, during that period, the sampling was repeated accordingly though the material became scarce due to the dry season reigning in the site (Figure1) causing us to see more carcass than living species. The identification was organized at two stages the first one on site which consisted of identifying the sample at the Family level before conserving them in flasks containing ethanol and the second one in the lab using microscope with all the necessary documentation and protocols for identification at the specie's level (Figure 2).



Figure 1: Landscape of Bouba Ndjida National Park during dry season

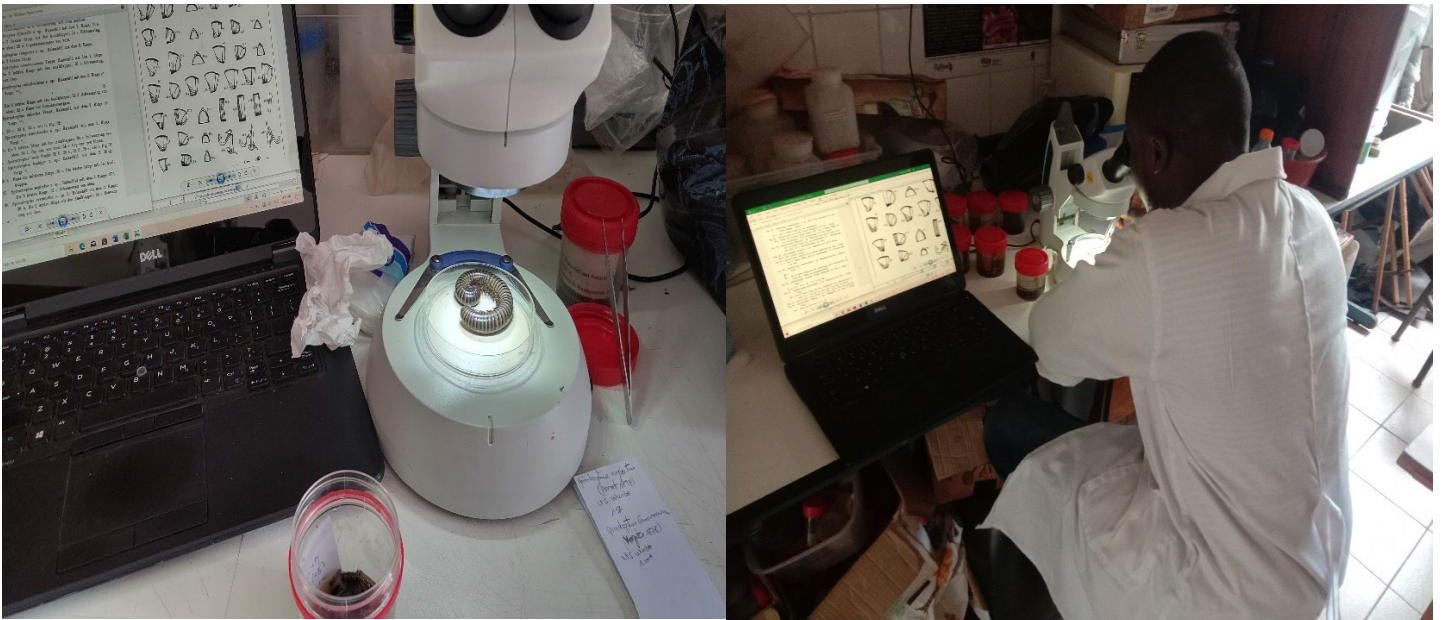


Figure 2: Identification of the collected species in the laboratory

- Talking of the investigation of millipede's status, we discovered from the literature that this invertebrate doesn't have a status yet and the distribution of threatened is more reduced since they are found in just one habitat while the distribution of endemic species has no delimited zone.
- The sensitization of communities continues during the fieldwork and deep far at the educative milieu with pupils and students where we keep broadcasting the general knowledge of millipedes and their benefits in our ecosystem (Figure 3).



Figure 3: Sensitization of youngsters in school milieu

- The conservation measures taken were as follows:
  - Keep sensitizing communities about the goods and benefits of millipedes in our ecosystem.
  - Stop throwing bush fires during dry season to clear the soils because it destroys the environment and the millipedes on site.
  - Stop exploiting the soil for agricultural purposes and rocks for constructions because such direct anthropogenic threats expose millipedes, make them to migrate and in the extend kill them and destroy their habitats.
  - Control and monitor animals found in the park so they can stop killing millipedes and have a good cooperation with those ladders.
  - Identify threatened species and register them in the IUCN so they can officially belong to the IUCN Red List.
  - Regroup all the millipede’s species found on the site and provide them with a conditioned environment for their breeding and their preservation.
  - Advocate for climate change which increasingly affect fauna and millipedes most specifically.

## Results

A total of 26 species were collected during that period and were clearly identified.

Family	Habitat	Total
Spirotreptidae	Grassy savannah	5
	Wooded savannah	8
	Shrub savannah	8
	Tree savannah	5
	<b>Total</b>	<b>26</b>

The 3D chart in figure 4 below shows the abundance of millipede species with respect to their specific habitat.

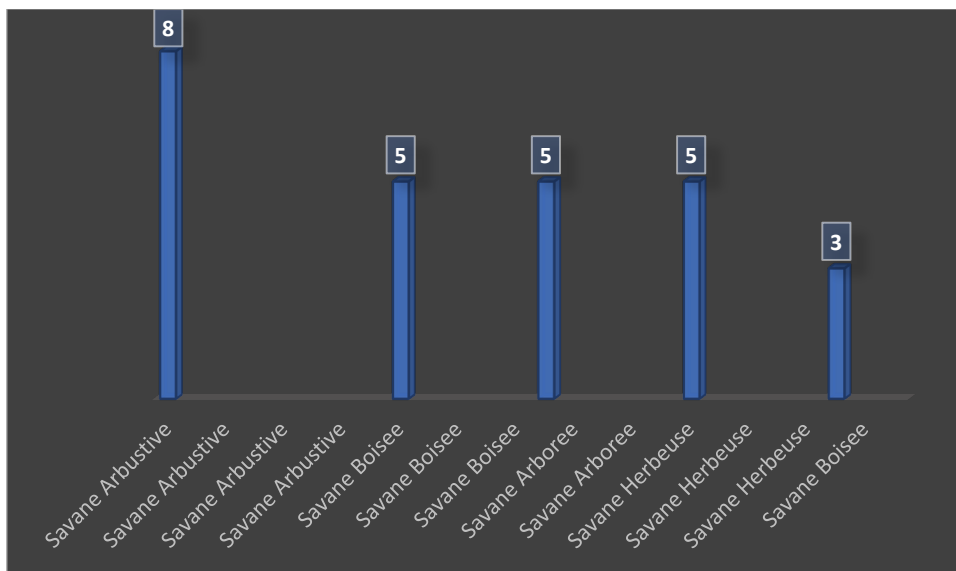


Figure 4: Abundance of millipede species according to their habitats during dry season

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