

### **Project Update : March 2023**

During my research trips to Nlonako with my supervisor Dr. Mvogo Ndongo, I have noticed a large number of dead crabs (*Buea nlonako*) that have apparently been trampled by local people (e.g., foresters and farmers) in the course of (legal) activities in the area. Also found dead were specimens of the endangered frog, *Arthroleptis nlonakoensis*, that are sympatric with *B. nlonako* in small permanent streams in Nlonako. These findings inspired a conservation effort aimed at protecting the small newly discovered species of *Buea nlonako* which would also reinforce the conservation of Nlonako and surrounding areas. This work also carried out a biodiversity inventory of the freshwater crab fauna of Nlonako Ecological Reserve and the surrounding area that water fall and streams from Manengouba.

From October 2022 up to the present we have conducted several field surveys on behalf of conservation action plan in Nlonako and surrounding areas (Melon and Manengouba).



**Fig 1.** Kuate Simo during the fieldtrip in surroundings areas of Nlonako.

During these field researches I collected a wealth of new data on the habitat requirements, population levels, and threats to *Buea nlonako*, as well as on its geographical range / extent of occurrence, and area of occupancy. These data will be shared to the IUCN's Freshwater Crustacean Specialist Group (chaired by Prof. Neil Cumberlidge, USA) who will then organise the formal reassessment of the species and the revision of the Red List extinction risk assessment that will be freely available via the Red List website for a global audience. Furthermore, I have educated local people (capacity building) in an effort to slow down the pressure of the forest ecosystem and on the crab's sensitive habitat (because its survival clearly depends on the canopy remaining intact). The education was rolling basis for the people encountered in the field. However, we have intensified research from this areas (and in the town) because threats to animals are very great. For example, we encountered local selling endangered frog (Fig. 2) along the route and they confirm that these animals are come from Nlonako and sourrounding areas.



**Fig 2.** Local selling endangered frog along the route in Nkongsamba



**Fig 3.** Kuate Simo collecting data during the fieldtrip.

**New findings for this pilot project.**

During the fieldwork in surroundings area in Melon around Ekom-Nkam waterfall (fig. 4), I noticed some destroyed and damage specimens of small freshwater crabs far a way from the water. However, I have collected an adult male and female that I have identify with my supervisor Dr. Pierre A. Mvogo Ndongo. And these specimens belong to new species (fig. 5) of the threatened genus *Louisea* Cumberlidge, 1994.

Besides, I have collected a potential new species of *Potamonemus*. (Fig. 6).

The educational component was a basic and ongoing activity at all visited areas for local people encountered from Nlonako ecological reserve. Therefore, education is one of the most important elements for my research project aimed at conserving Nlonako ecological reserve (and surroundings areas) and its related fauna. A long-term monitoring system will be then established that is expected to help mitigate the pressures on local forests and lead to regeneration. The success of this project in the long term is based on the main messages delivered to local populations, especially to younger members.



**Fig 4.** Water fall from Ekom-nkam (Melon).



**Fig 5.** New threatened species of *Louisea* Cumberlidge, 1994.



**Fig 6.** *Potential new species of Potamonemus.*