Progressive report

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Project title: Biodiversity inventories of freshwater crabs from unexplored and threatened areas of Yangambi Biosphere Reserve (D.R. Congo): Implications for conservation

By

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Lofanga Bolukaoto during fieldwork

1. Aim of the project

A study is being carried out in the Yangambi Biosphere Reserve (YBR), which is in a low-lying area of the Kisangani region (fig.1). The aim of this study is to inventory the crab species in

and around the Yangambi Biosphere Reserve (YBR) and to identify anthropogenic threats to the crabs and their habitats, in order to help the local community adopt less damaging practices that could endanger the species. The duration of this study is one (1) year, including 6 months of data collection and the remaining months devoted to writing the report.

For the time being, the data have been collected in the Yangambi Biosphere Reserve. During our field data collection outings (fig.2), supervised by Dr. Pierre A. Mvogo Ndongo (Cameroon) and Prof. Nicaise Amundala Drazo (D.R.Congo), we recorded severe environmental degradation and poor water quality due to pollution from human activities (fig.3) in and around the reserve's ecosystems. The dead crabs found during our collecting trips are the result of these illicit activities (fig.4).

Field data relating to crabs, physico-chemical and environmental parameters, local population behaviour and anthropogenic activities affecting freshwater crabs and their habitats in this region have been collected. These data will be communicated to the IUCN Freshwater Crustacean Specialist Group (chaired by Professor Neil Cumberlidge, USA), who will then organize the official re-evaluation of the inventoried species and revision of the Red List extinction risk assessment, which will be available free of charge on the Red List website for a global audience. In addition, we have trained the local population (capacity building) with the aim of slowing the pressure on the forest ecosystem and on the crabs' sensitive habitat (as their survival clearly depends on the preservation of the canopy).

During our fieldwork in the YBR, we collected 2 undescribed species belonging to the genus *Longipotamonautes* Bott, 1955 (fig.5 and fig.6). The identification of these species was approved by Dr. Pierre A. Mvogo Ndongo (Cameroon) and Prof. Neil Cumberlidge (USA).

During the collection of crabs and environmental data, all people encountered in the field were sensitized (Fig.7). The intensification of environmental education will enable the future abandonment of bad habits and a change in mentality of this population with regard to crabs, their habitats and other aquatic and terrestrial ecosystems in this reserve.

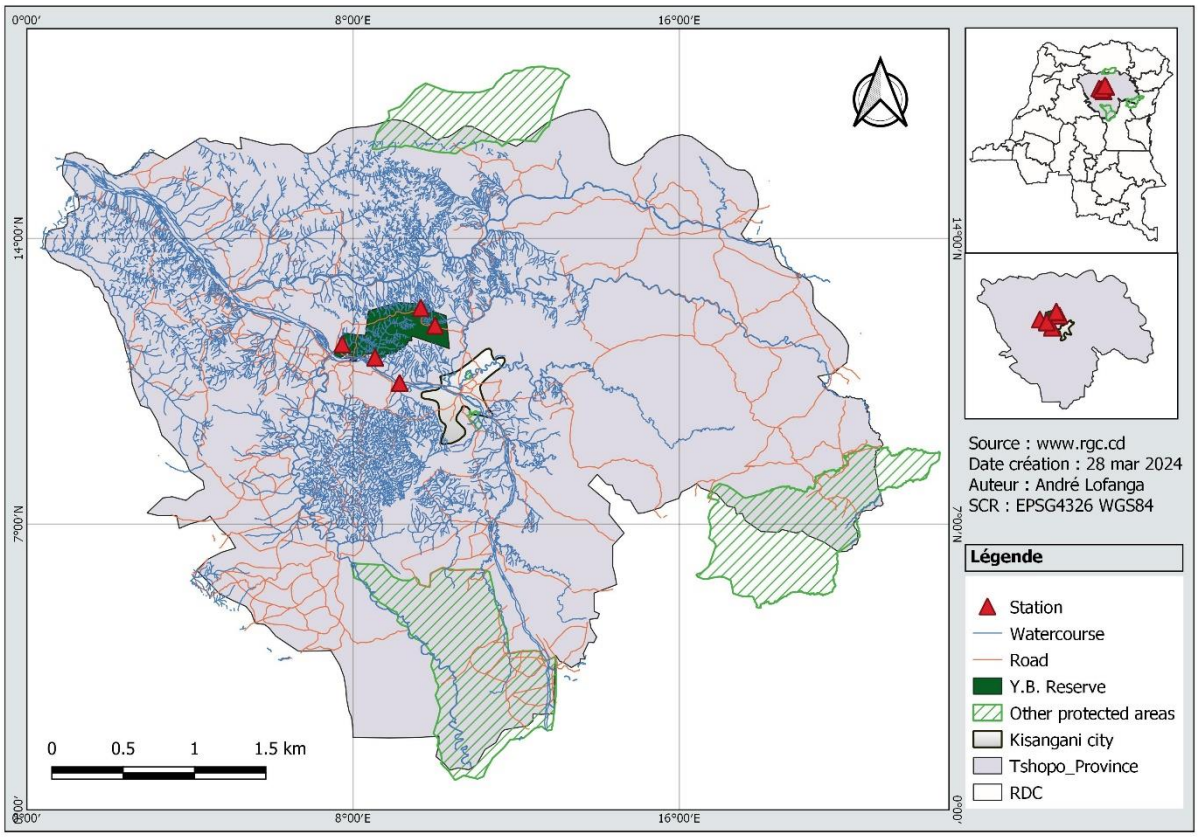

Fig.1 : Map of study area

Fig.2 : Capture of crabs by picking (a) and traditional creels (b)

Fig.3 : Recording of physico-chemical data (a) and threats (scooping of the Bokululu stream (b) and collection of fish killed by the chemical in the Abione river (c) where our traditional traps have been installed).

Fig.4. Remains of crabs found on the banks of the Bokululu River

Fig.5 : Potential new species of the genus *Longipotamonautes (Longipotamonautes* sp1.) collected in the lowland region of Yangambi

Fig.6 : Potential new species of the genus *Longipotamonautes (Longipotamonautes* sp2.) collected in the lowland region of Yangambi

Fig.7 : Photo taken after raising awareness of the local population found with crabs caught by scooping from streams