

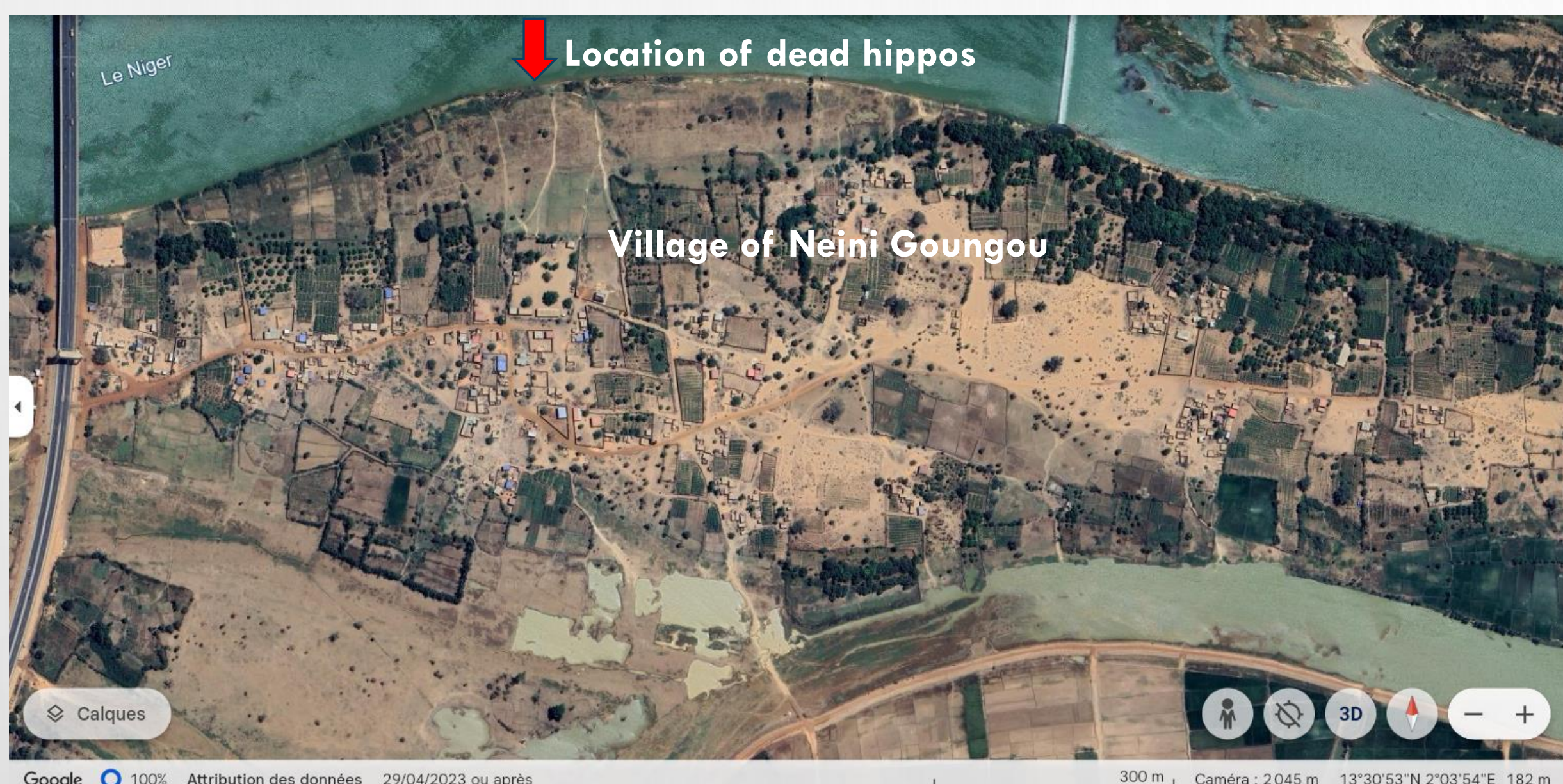
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Background

- The common hippopotamus (or *Hippopotamus amphibus*) is the main species found in Niger of the Hippopotamidae family.
- In April 2023, a series of deaths of individuals was recorded on the island of Neini Goungou (Right bank of the river, Niamey) by environmental services following field investigations.
- The objective of this investigation is to describe the frequency of occurrence of mortality in individuals and secondly to confirm the plausible source of these cases of mortality.

Method

- A descriptive cross-sectional survey was conducted during the period from April 1 to May 2, 2023 in the Island of Neini Goungou in order to investigate the cases.
- An investigation sheet was used for data collection.
- A sample of the dose was taken and transported to the laboratory for diagnosis.
- The diagnostic test applied is culturing by detection of the pathogen in the tissues.
- The Epi Info 7.2.5 software was used to calculate the proportions of the study variables.



Picture 1. Location of the village of Neini Goungou, on the Google Earth image, May, 2024

Results

- In sum, 7 cases of mortality were recorded during the study period (one month).
- Between April 21 and 22, two consecutive mortalities were recorded and sampled.

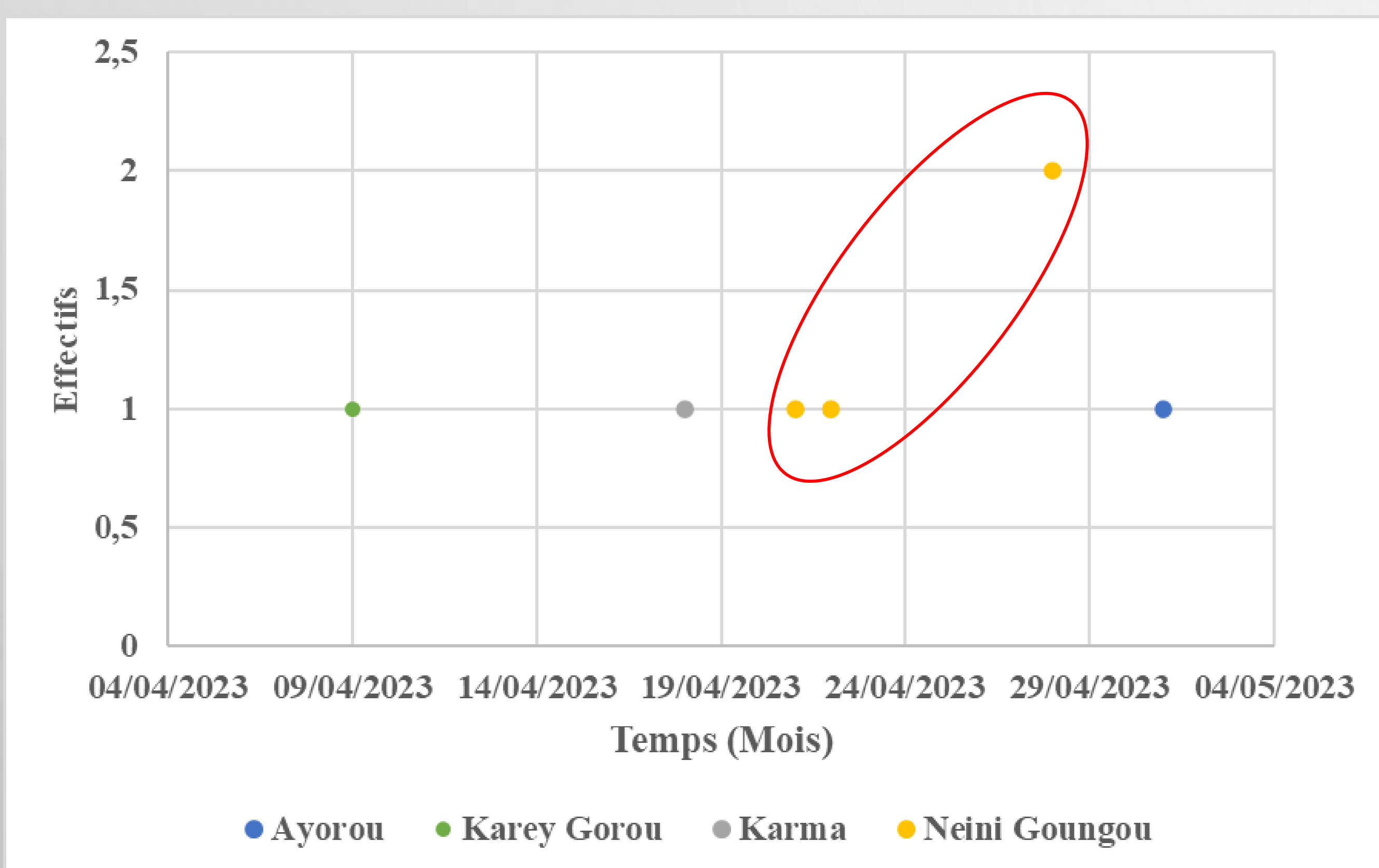


Figure 1. Distribution of cases of dead hippos reported in April to May 2023 (Niamey and surrounding areas)

- There were 4 (57.14%) adult females (1 pregnant), 1 (14.28%) sub-adult female and 2 (28.57%) young females.

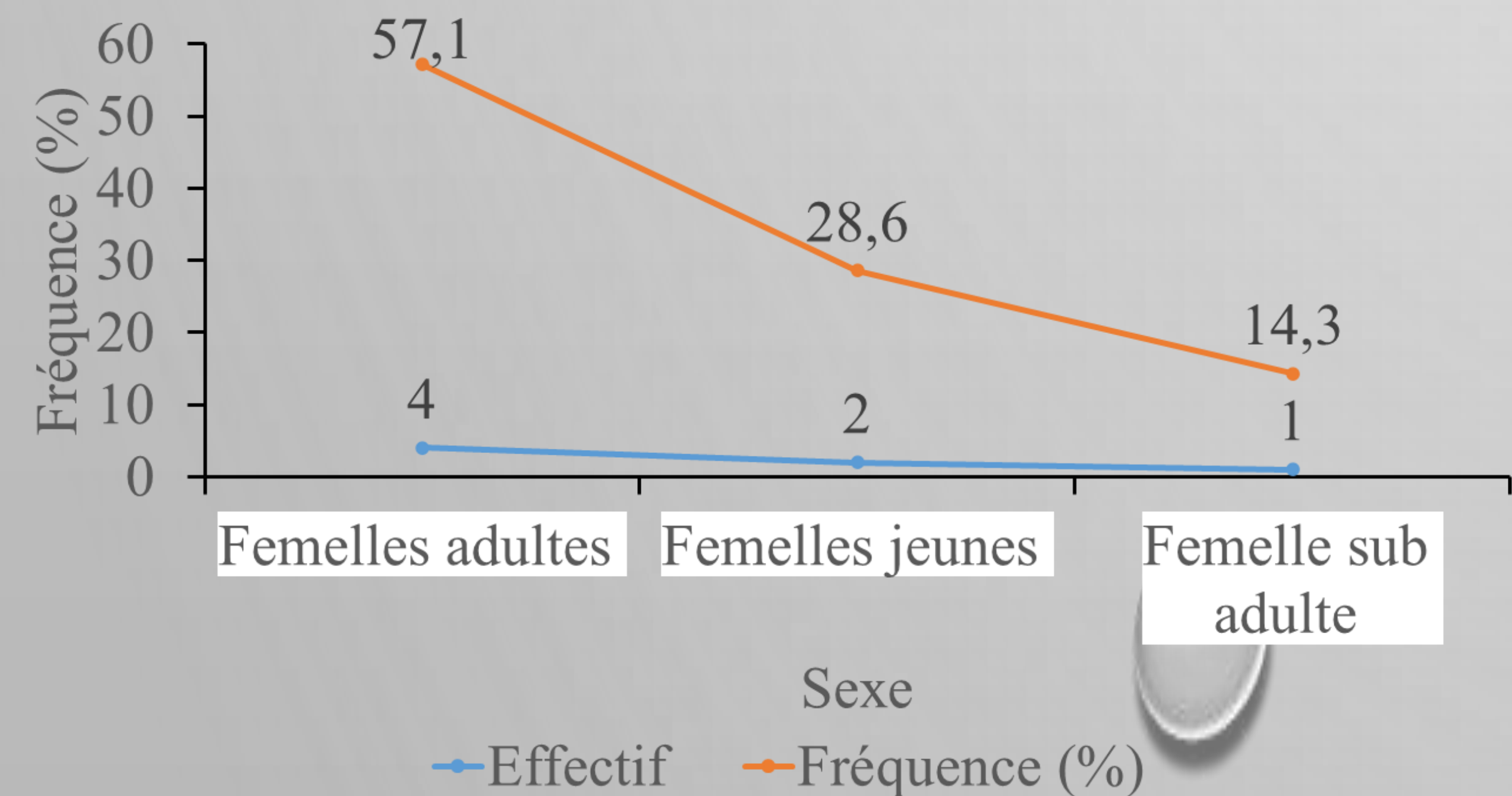
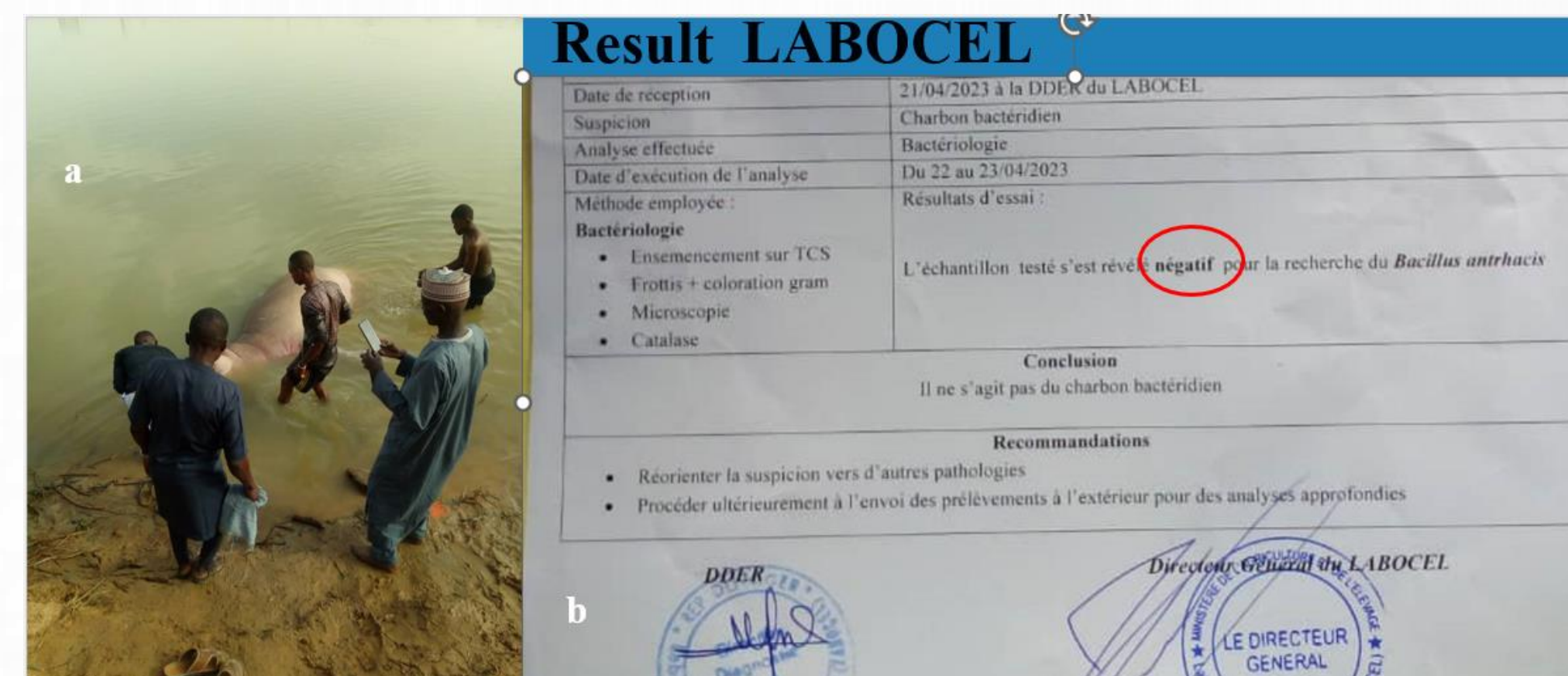


Figure 2. Age and sex distribution of cases of dead hippos reported in April to May 2023 (Niamey and surrounding areas)

- The results of the *Bacillus anthracis* detection test from the first sample on April 21 were negative



Picture 1. (a) 1st Individual reported dead on 04/21/2023 in the river at Neini Goungou; (b) Tested negative for *Bacillus anthracis* (LABOCEL result)

- As for the test the following day (April 22), it was confirmed positive for *Bacillus anthracis*.



Picture 2. 3rd Individual (young female) reported dead reported on 04/28/2023 in Neini Goungou (c), on the banks of the Niger River (d): Tested positive for *Bacillus anthracis* (LABOCEL result)

Conclusion

- This study highlighted the appearance of anthrax in the population of the common hippopotamus in Niger, formerly endemic among domestic animals.
- It is important to research the association between the responsible factor and the appearance in the hippopotamus population in order to strengthen epidemiological surveillance.

Recommendations

- To investigate the factor(s) associated with the occurrence of this disease in the hippopotamus population in order to strengthen epidemiological surveillance.

Public Health Actions



Picture 3. Awareness session for the population of the village of Boumba (Commune of Falmey, Dosso Region, Niger) by the One Health team on the dangers of consuming meat from hippopotamuses that have died naturally

References

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