Project Update: October 2019

Abstract

During the second survey trip in the Deng-Deng National Park, we aim to remove the 15 cameras settled to monitor the presence of the giant pangolin and the whitebellied pangolin during a cumulative period of 1350 trap nights in three savannah habitat types. Out of 15 cameras established only one location have photograph pangolins the giant pangolin, and the white-bellied and the black-bellied pangolin were not recorded. We assessed insects prey assemblages especially termites in the potential habitat to evaluate the food availability for pangolins.

Update of cameras establishment on different locations



Pangolin presence in the Deng-Deng National Park savannah area

Out of the 15 camera traps installed, four did not work properly during the 90 days as expected. We recorded nine independent pangolins events comprising five whitebellied pangolin events and four giant pangolin events. Giant pangolin and whitebellied pangolin presence in the Deng- Deng National Park savannah area were confirmed with photos from camera traps (Figure 1). No evidence of the Blackbellied pangolin was recorded.

Photo credit : Difouo Fopa G. & Simo Talla F. _ S. Kekeunou and D. Olson _ Rufford Foundation/ University of Yaoundé 1



Figure 1: White-bellied pangolin footage associated with the savannah area of the Deng-National Park

Pangolins events according to the potential habitats

Amongst the giant pangolin photographic events, the highest percentage (33.33) occurred in the forest-savannah transition zone hereafter woodland savannah and the higher percentage (11.1) occurred in the grassland savannah. There were not photographic events of both two pangolin species in the forest gallery. The white-bellied pangolin were all recorded in the woodland savannah. The black-bellied pangolin would seem to be absent from these studied vegetation types.

A total of 3592 termites was collected in three different savannah habitats comprising 40 species, 26 genera, ten sub-families and one family. A total of 75 ants' tubes was also collected during the camera removal first trip and are being currently in identification.



Figure 2 : Pangolin footage associated with the type of habitat : A) Juvenile giant pangolin, B) White bellied pangolin both in the woodland savannah Insects richness available as pangolins food resources

 $\label{eq:table_table_table_table_table} \textbf{Table 1}: \mbox{Relative abundance of termites and species richness in the different types of habitats}$

Type of habitats	Number of family	Subfamily	General	Species	Relative abundance
Forest Gallery	1	2	4	7	(9.24) 332
Woodland Savannah	1	4	11	16	(26.64) 957
Grassland Savannah	1	4	10	17	(64.11) 2303
Total	1	10	26	40	(100) 3592

Detection rate according to the abundance of food resources

The giant pangolin and the white-bellied detection rate were highest in the habitat with the highest number of insect species and relative abundance. The higher detection rate 0.96 % from white-bellied and 0.51 % from giant pangolin were recorded in the woodland savannah which have shown a huge food resources available for pangolins with 64.11% of the biomass and the highest number of species of the insects collected. A higher detection rate of the giant pangolin and none white-bellied detection rate was obtained in the grassland savannah which have shown a higher relative abundance despite its higher species richness. We have recorded no pangolin's detection in the forest gallery which have shown the lower

relative abundance and insect's species richness.



Field team near Lom-panger hydroelectric dam

Acknowledgements

The authors wish to thank the Rufford Foundation for the financial support on this project throught the Rufford Small Grant fund, the Ministry of Forestry and Wildlife (MINFOF) for the research permit N°0805 of the April 2nd 2019, ABESSOLO MENVI Charles Innocent the former Conservateur of Deng-Deng National Park. We acknowledge Francis TARLA TCHEMBI Dr. David OLSON (WWF Hong Kong), Professor KEKEUNOU Sévilor (University of Yaoundé 1), Dr Kevin Y NJABO (University of California) and all the surveyed team members. We acknowledge the United State Fish and Wildlife Service (USFWS) MENTOR-POP (Progress on Pangolins) Fellowship Program especially ICHU ICHU Godwill for camera-trap provides. We express gratitude to the field team members which have greatly contributed and will continued to be involved in this project during the dry season. The University of Yaoundé 1, Laboratory of Zoology where this project laboratory step has been and is currently conducted.



30 cameras purchased with the assistance of RSG grantee, Simo Franklin.



We want to share with the Rufford Foundation this beautiful camera footage of two female bongo recorded in this park