

Assessment of mammal diversity and bushmeat offtake in the tropical forests of southeastern Cameroon

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Tropical forests of central Africa host an important part of the world's terrestrial biodiversity and provide numerous provisioning, regulating, and cultural ecosystem services to human populations. Major threats hang over those diverse ecosystems, namely land use changes and consumption of bushmeat.



OBJECTIVES

Assessing **mammal diversity** and **bushmeat consumption** in three contrasted and largely represented forest land allocation types in southeastern Cameroon:

- (i) A protected area (Dja Biosphere Reserve);
- (ii) A FSC-certified logging concession (PALLISCO company);
- (iii) Three community forests (Medjoh, Avilso, and Eschiambor)

44 camera traps installed for 3 months in the 3 land allocation types

Tracking of volunteer hunters over 651 kilometers

Daily monitoring of the food bowl of 55 households for 3 months



Theoretical gradient of human pressure on forest ecosystems



Protected area



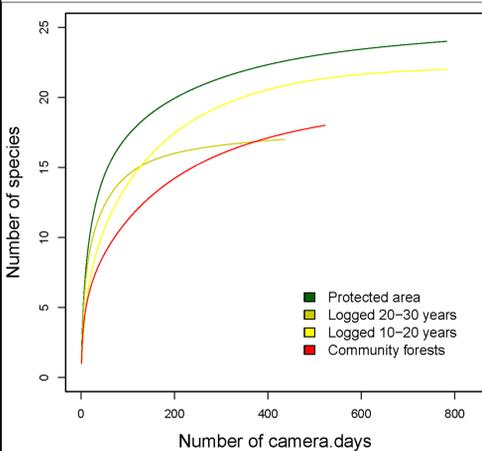
Logging concession



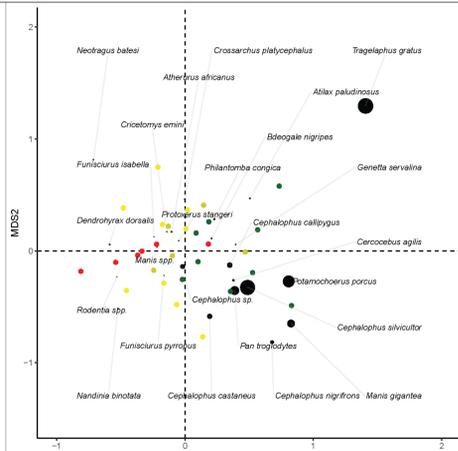
Community forests

Mammal inventories

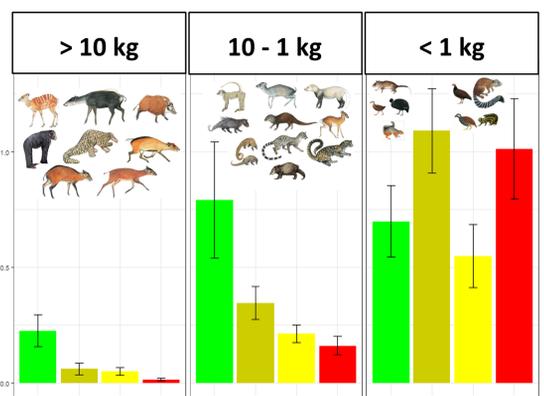
Rarefaction curves



Non-metric multidimensional scaling

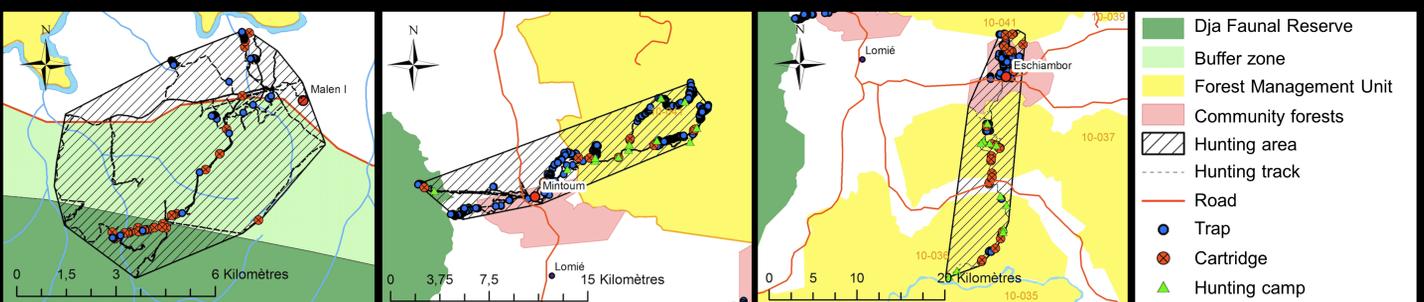


Mean trapping rate per day



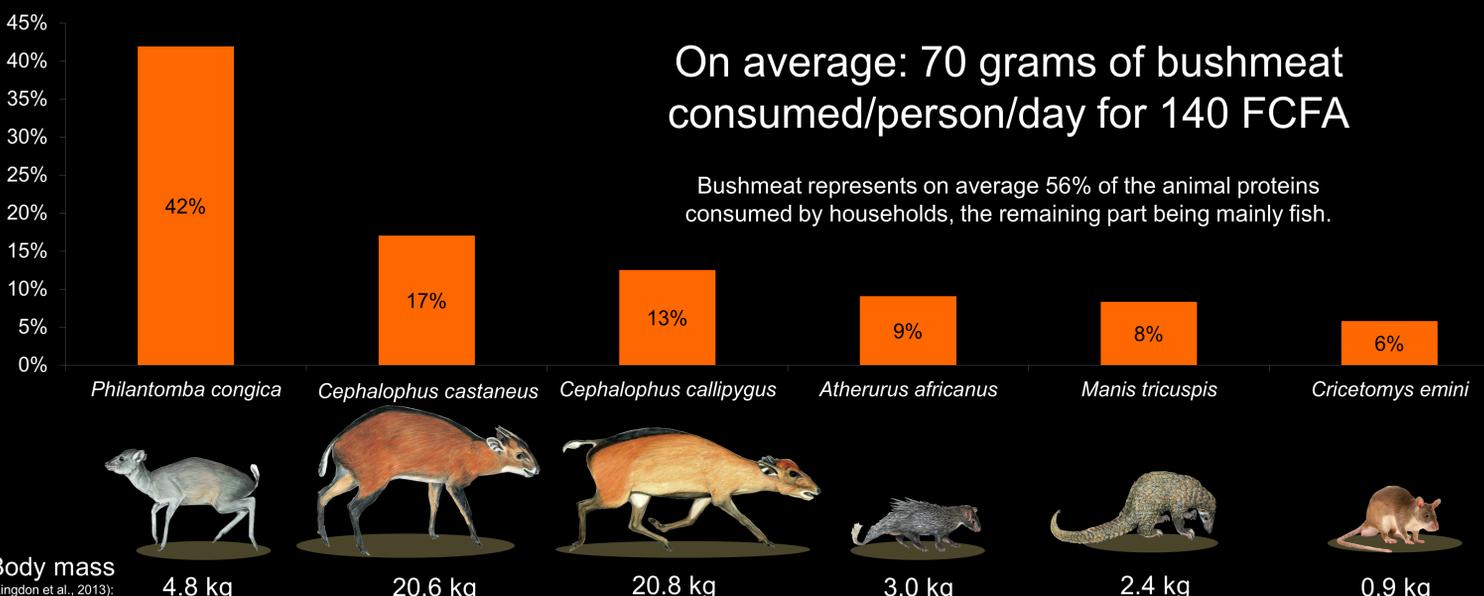
Though a great part of the mammal diversity is retained inside the logging concession, the protected area holds the richest and most abundant mammal communities, whereas community forests were found to be dominated by small body size species (particularly rodents).

Hunting activities



The size of the hunting territories is influenced by many factors such as human population density or the presence of alternative protein sources. Although poaching controls in the protected area and, to a lesser extent, in the certified logging concession appear to play a deterrent role, evidence of hunting activities were found in all land allocation types.

Bushmeat consumption



Conclusion

Our results demonstrated the ability of the protected area and the logging concession in the conservation of wildlife species and the provision of bushmeat for local populations. It remains essential to maintain and develop anti-poaching patrols in those areas, strategically based on geographic data of hunting pressure. Current levels of hunting activities also confirm the need for the development of alternatives to bushmeat.