



41-Consumptive uses of wildlife in sub saharan africa: the janus bifrons syndrome

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ABSTRACT :

Hunting practices as drivers of small- and large-scale spatial variations in wildlife occurrence: an inter-site comparison across Central Africa

In a context of global biodiversity threat, overexploitation of wildlife populations through hunting is of major concern. Subsistence hunting, as a source of protein and incomes, is however a major component of livelihood for some local communities. The Congo basin in Central Africa is emblematic of these challenges, with rapidly declining wildlife populations in this biodiversity hotspot and the presence of rural populations relying on the exploitation of natural resources. The elaboration of sustainable hunting and management strategies is crucial but hampered by the lack of information on the impact of hunting on the status of wildlife populations. Measuring concurrently spatial patterns of wildlife occurrence and hunting activities at different sites along a gradient of hunting pressure may provide an important basis to identify indicators of non-sustainability of hunting.

In this study, we implemented a standard protocol aiming at assessing the relationship between hunting practices and wildlife occurrence over 6 hunting grounds in the Congo Basin (Gabon, Congo, and Democratic Republic of Congo). Camera traps were deployed for a month over >300 sampling stations to detect the presence of elusive forest dwelling species. Socio-economic surveys were concurrently conducted in villages to map the contours and the principal features of every hunting ground, and characterize the management rules, hunting practices, offtakes and bushmeat consumption. The data collected by the camera traps were analysed using statistical models that estimate probabilities of occurrence of focal wildlife species at each station.

Our analysis identified the environmental and hunting related drivers of small- and large-scale spatial variations in occurrence for species belonging to these different indicator categories. Different categories of species were distinguished according to their potential as indicators of hunting pressure or practices. We discuss their respective relevance as a basis for implementing evidence-based wildlife management strategies through adaptive management.

REFERENCES

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