Assessing the distributions and relative abundances of diurnal primates (*Papio cynocephalus* and *Chlorocebus pygerythrus*) in Vwaza Marsh Wildlife Reserve, Malawi.

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Introduction: Why monitor monkeys in Malawi?

At present, there are very few studies addressing primate research and conservation in Malawi, despite up to seven primate species recorded to be present throughout the country[1]. Primates are absent from nearly all national conservation action plans and policies. This research aims to provide baseline data on the two diurnal primates of Vwaza Marsh Wildlife Reserve (VMWR), which will contribute to this dearth identified by the Illegal Wildlife Trade Report[2].

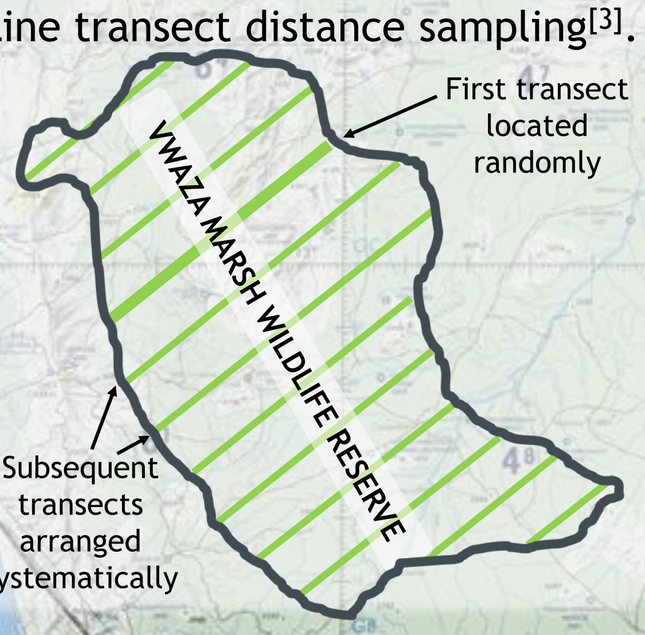
Figure 1 (left): Vervet monkey *Chlorocebus pygerythrus*, Ellie Darbey; *(right):* Yellow baboon *Papio cynocephalus*, Amanda Harwood

Methods: How do we monitor monkeys in Malawi?

The methods below will be combined to create a protocol that can be used to monitor the yellow baboons and vervet monkey populations in VMWR in the future.

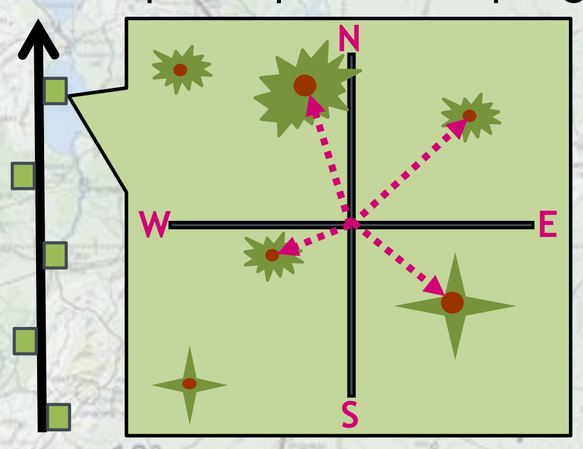
Relative abundance:

Line transect distance sampling[3].



Habitat assessments:

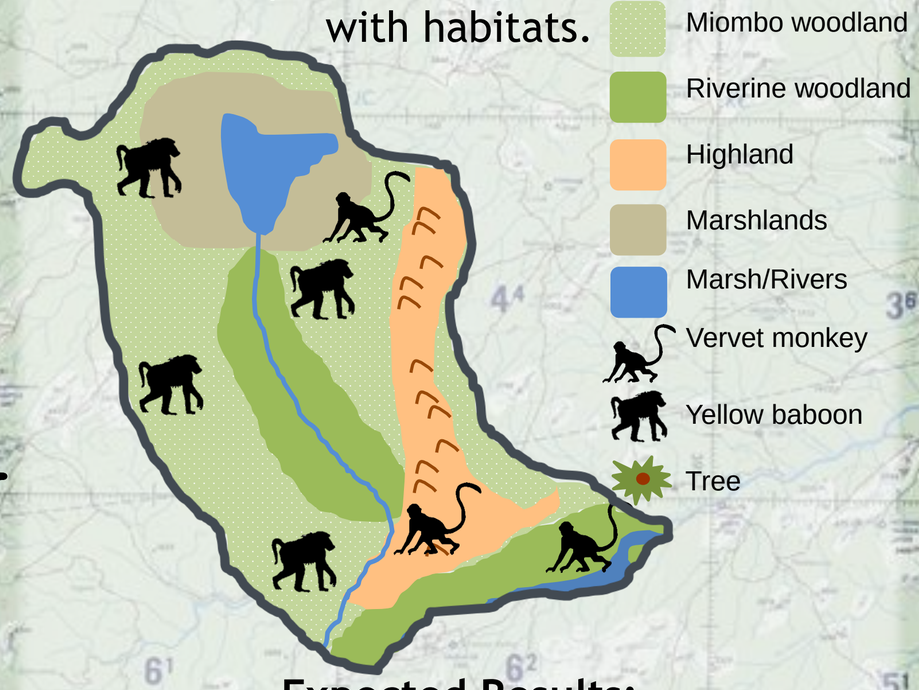
Plotless point-quarter sampling[4].



50 plots per transect; general habitat type = dominant species; canopy cover

Distribution of primates:

Abundances overlaid with vegetation structure, and analysed statistically to understand patterns of primate distribution with habitats.



Expected Results:

Previous research on these species suggests that yellow baboons are more likely to be found in open savanna, and vervet monkeys in denser thicket. Both species are expected to be abundant in forest dominated by *Brachystegia*, an important firewood resource for nearby communities. They are shown to exhibit niche partitioning to avoid competition[5].

Conclusions & Implications of Research:

Due to the abundance and ability to adapt to human environments, yellow baboons and vervet monkeys face active persecution in their environment, and are often disregarded in conservation. These findings will enable VMWR park management to include these primates in biodiversity and conservation action plans, and continue to monitor them with the aim of protecting future populations in the area.

References: [1] Happold, D. (2014). The mammals of the Nyika-Vwaza. *Nyika Vwaza News*, **18**: 8-15. [2] Waterland, S. *et al*. (2015). *Illegal Wildlife Trade Review, Malawi*. Lilongwe: BMZ; GIZ; GmbH; Lilongwe Wildlife Trust; Born Free Foundation. [3] Thomas, L. *et al*. (2010). Distance Software: design and analysis of distance sampling surveys for estimating population size. *Journal of Applied Ecology*, **47:** 5-14. [4] Ganzhorn, J.G. (2003). Habitat description and phenology. In *Field and Laboratory Methods in Primatology*. J.M. Setchell & J.C. Curtis, eds. Cambridge: Cambridge University Press. Pp. 40-56. [5] Dunbar, R.I.M. and Dunbar, E.P. (1974). Ecological Relations and Niche Separation between Sympatric Terrestrial Primates in Ethiopia. *Folia Primatologica*, **21**: 36-60.