



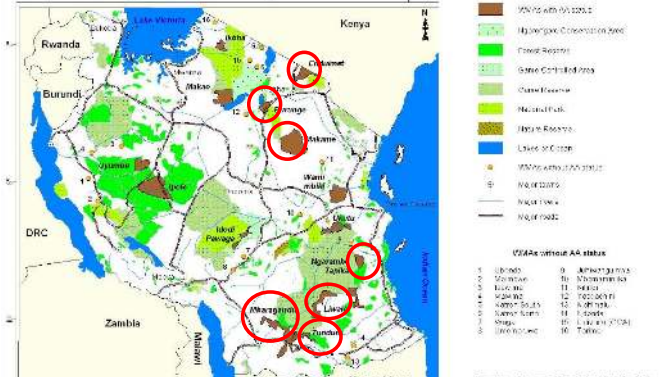
Wildlife overflight analysis in Tanzanian WMAs



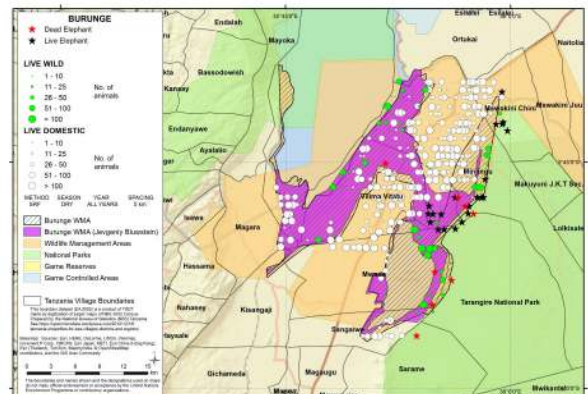
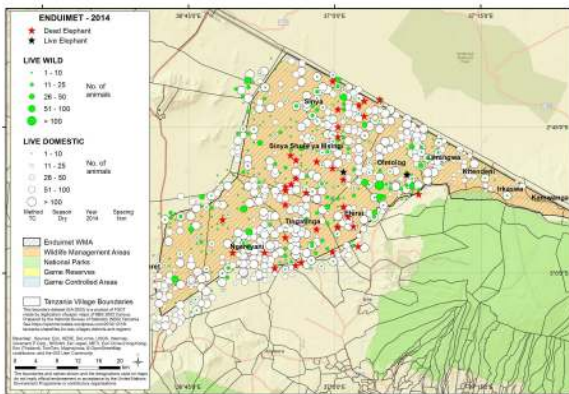
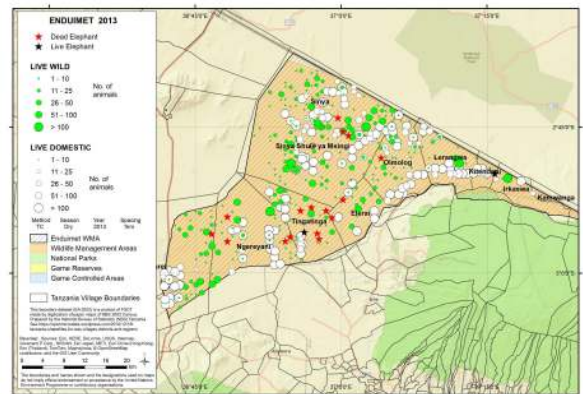
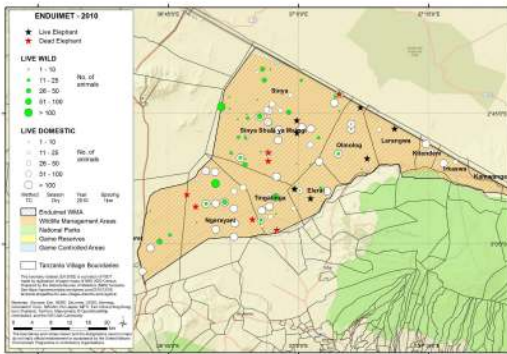
Neil Burgess, Maurus Msuha, Mwita Machoke, Simon Blythe, Martin Nielsen, Noelia Zafra Calvo

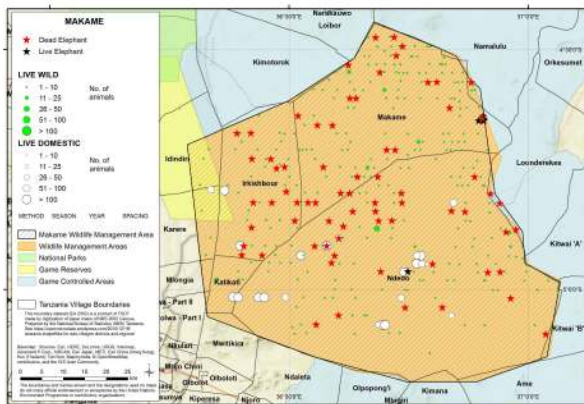


Location of WMA in Tanzania



Overflight results: Northern WMA

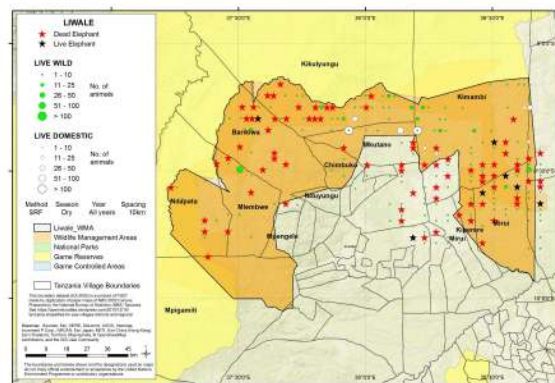
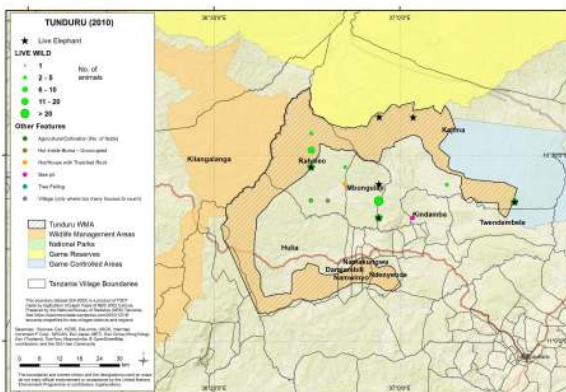
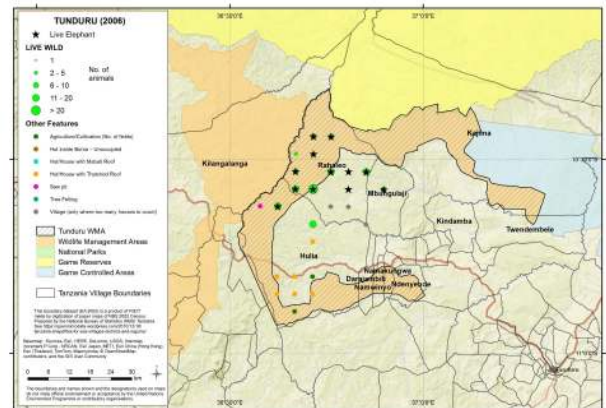
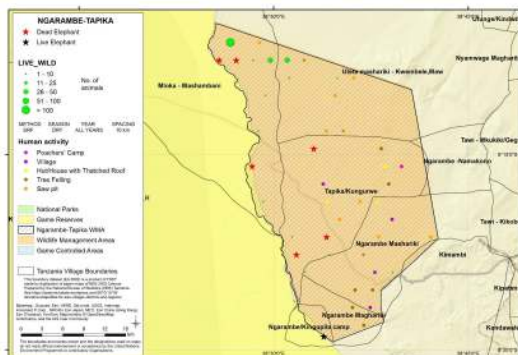


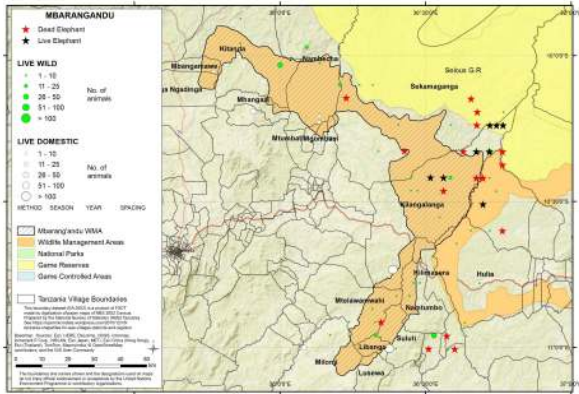


Summary

- Northern WMA have high numbers of domestic animals
- Numbers of wild animals are also considerable, and variable
- Both live and dead elephants are recorded in 2014
- Large numbers of dead elephants were recorded in Mukame WMA in the 2014 census

Overflight results: Southern WMA

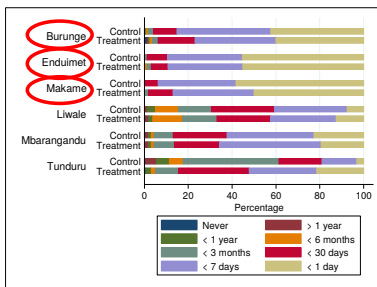




Summary

- Southern WMA have few domestic animals
- Numbers of wild animals also seem lower than northern WMA
- Both live and dead elephants were recorded in 2014
- Large numbers of dead elephants were recorded in Liwale WMA in 2014
- Ngaramba-Taipika WMA had considerable evidence of human settlement within its boundaries in 2014

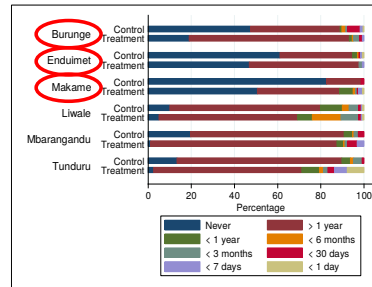
Domestic animals consumption in WMA and non-WMA villages



Non-bushmeat consumption frequency in treatment (WMA) and control (matched non-WMA) as a proportion of sample in the six WMAs (N=1910).

Domestic animals consumed far more often in the northern WMA- in line with higher availability

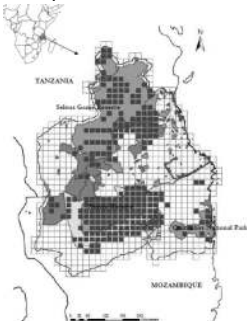
Wild animals consumption in WMA and non-WMA villages



Bushmeat consumption: consumption frequency in treatment (WMA) and control (matched non-WMA) as a proportion of sample in the six WMAs (N=1782) (N=1782).

Bushmeat consumed less often in northern WMA with more domestic animals. Frequently consumed in the southern WMA, with WMA villages consuming bushmeat every year, and in some cases every day

Explanatory factors for the distribution of elephant carcasses in southern Tanzania



Elephant carcass data were derived from aerial censuses undertaken during the dry season (September/October) in 2009 and 2011 in Mozambique (Craig 2009 and 2011) and 2011 and 2014 in Tanzania

In Mozambique: Niassa, open woodlands and annual mean temperature were included in the best model (AIC= 401.69; 53% of explained deviance)

In Tanzania: Community-managed protected sites designated as WMA have a strong positive relation to the number of elephant carcasses in the SNWPC, and in the WMAs on the Eastern side of the SGR in Tanzania.

Conclusions

- In 2014 - WMA support more domestic and more wild animals in the north
- In 2014 - there were many elephant carcasses in a number of WMAs
- We don't have the cause of death or the age of the carcass, but this was at the height of the poaching crisis in the country, with DNA evidence locating many seized tusks as from southern Tanzania
- Village surveys from 2014 show more domestic meat eaten in the north and more bushmeat in the south
- There are some differences between WMA and non-WMA village consumption patterns but these need further exploration
- Many WMA resources available on: <https://www.ucl.ac.uk/pima/resources/tmp.htm>