Recent environmental changes in Eastern Mau and Amboseli, Kenya:

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The second fieldwork season for the research project entitled 'Resilience in East African Landscapes: Identifying critical thresholds and sustainable trajectories – past, present and future (REAL)' was undertaken between January and April 2015. This was a continuation of fieldwork that began March-May 2014, as part of Esther Githumbi's and later Rebecca Kariuki's PhD research at the University of York, UK. Environmental change analysis in the Amboseli ecosystem is important for understanding temporal and spatial land use and model development for scenario analyses. With very little work previously undertaken in the Mau region to understand its environmental history; the information acquired will be crucial for the sustainable management of the Mau, one of Kenya's water towers. Wetlands sites were revisited in the semi-arid Amboseli ecosystems and in the montane forests of eastern Mau that had been previously been surveyed and sediment cores were collected.

The Marie Curie Initial Training Network funded by the European Commission takes a multi-disciplinary approach to examining the ontogeny of East African landscapes; focusing on important drivers of environmental change, climate-vegetation-fire interactions, the impacts of anthropogenic activities and modelling of future scenarios. These data will be used to examine the main influences of past environmental changes and how these ecosystems will respond to further changes in climate and land-use patterns. Logistical support for fieldwork was supported by the BIEA, the National Museums of Kenya and the team involved: Mr. John Kanyingi (BIEA), Mr. Nicholas Gakuu

(BIEA), Rebecca Muriuki and Stephen Rucina (National Museums of Kenya Palaeobotany and Palynology Section).

Pollen trap recovery, vegetation mapping, spatial survey using the DGPS, and landscape surveys for model conceptualisation of the major landscape changes were undertaken from 11th-13th February 2015 in Eastern Mau and 19th-28th March 2015. Analyses of the samples and data are in progress at the University of York (Environment Department) and the National Museums of Kenya (Palaeobotany and Palynology Section). Through reconstruction of past changes, the

Recovery and replacement of pollen traps

Demonstrating quadcopter setup to local children

data will provide the information needed to understand and monitor the current landscape and develop models for comparison of land use changes with the landscape by incorporating local observed factors. For more information, please visit: www.real-project.eu

The DISPERSE Edaphics Project,

Professor Geoffrey King

It is common knowledge among agriculturalists t of soils and their associated vegetation strong health of grazing animals. This is hardly apprecia anthropologists who generally assume that all th is water and vegetation. A lack of this underst limits interpretations of the relation between our animals over the last few million years. It should n that even lush vegetation is attractive to animals. trace elements (e.g. phosphorus P, sodium N cobalt Co) then wild grazing and browsing anima and go to considerable lengths and take major ris better pasture. As a consequence animals must m landscape at different times of year.

In a complex landscape, hominins can use a behaviour to gain strategic advantage. For this p can be described as the relative ability of the soi via plant take-up, to supply the necessary nutri growth and health. To appreciate wild animal move necessary to consider other factors such as the w of soils, and slope steepness that constrain anim An edaphics approach is necessary in Kenya be information is not sufficient to determine anim before modern humans became prevalent.

Within Kenya major changes have occurred as farmers migrated into the area in the last few centur have accelerated in the last 50 years. Historical inf the distribution of wild animals is useful but limit