Project Update: June 2016

This project update report highlights activities undertaken in between April and June 2016. All data collection activities for the project titled *"Time series monitoring of bush encroachment by Euclea divinorum in ol Pejeta conservancy, laikipai Kenya"* started in the month of April 2016. First was to familiarise the team with the various methods as outlined in the full project. Ideally, this entailed testing of various data collection techniques, setting up the logistical requirements and team members to work with as well as training research assistants. Finally, 8 member team comprising of 2 graduate students, 3 intern (based at OPC), driver, security person and principal investigator was constituted.

*Euclea Divinorum* **Tracking and Ground Truthing**

In order to understand various vegetation covers, reconnaissance study was undertaken which involved tracking of the areas under *E. divinorum*. Here, vegetation cover were described, their characteristics as well as mapping their locality. Tracking was undertaken using hand held Global Positioning System (GPS) by cruising at the peripherals of areas under *E. divinorum*. The tracked polygons were converted to readable formats in various Geographic Information Systems platforms. This was necessary for re-projection and map editing to over lay perfectly over the already existing shapes of the entire Ol Pejeta Conservancy (OPC). The tracked polygons were used in collaboration with google earth satellite images for digitizing purposes. The google earth image below is part of the generated polygons covered by *E. dvinorum.*

Eastern section of the Ol Pejeta Conservancy. Tracked polygons marked with thin whitish line shows areas under *E. divinorum* as of year 2016.

Camera Trap Setting for Habitat Utilization Survey

Here, the entire OPC map was overlaid on a 2x2km grid, centroids generated and consequently shapefiles created. In order to cover the whole of the study area, the conservancy was divided in to three bloc namely Eastern, Southern and Northern. This was employed due to lack of enough infra-red cameras to cover the entire study area. Infra-red motion triggered camera traps were deployed in the Eastern bloc which had a total of 16 camera trap stations. The camera stations were systematically generated hence fell inside all major vegetation covers.
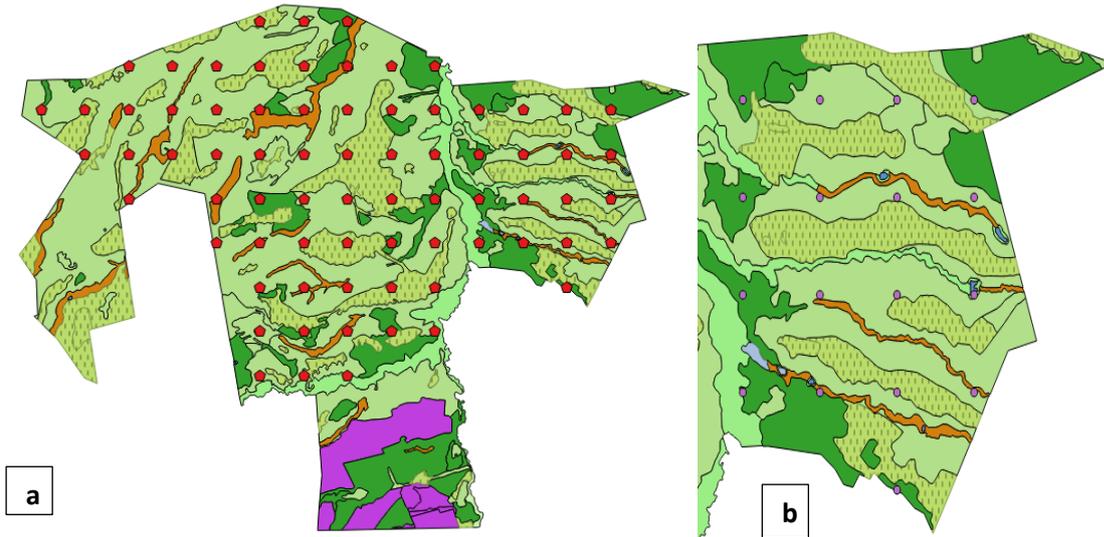
The map on the right (a) is entire camera trap stations in red while on the left (b) is Eastern bloc Camera trap station.

After developing the map and the camera traps stations, 16 camera traps were deployed in the Eastern bloc for 14 days with camera servicing in the seventh day. Here, the data collected will be used for occupancy modelling and diversity studies in encroached and non-encroached habitats. Below are some photos of the research team deploying camera traps in OPC.