

**Project Update: January 2020**

### **Summary of Aims of the project**

This study seeks to assess the physiological stress of African elephants to variation in land use by comparing the physiological stress levels of African elephants in both Mpala and Koiya group ranch with differing degrees of anthropogenic disturbance. The study also seeks to train community members on individual recognition of African elephants through preparation of a catalogue recognition file which will improve an understanding of the behaviour and demography of elephants in Koiya group ranch and subsequently facilitate longitudinal studies on endocrine monitoring. Additionally, the study seeks to build the capacity of researchers on the need to carryout longitudinal studies of endocrine function on endangered species within Laikipia.

### **Discussion**

This study commenced in November 2019 with preparation of a catalogue recognition file. So far, a total of 10 catalogue recognition files for family groups and one catalogue recognition file for identifying bulls have been prepared from a total of  $92 \pm 10$  elephants so far observed. The largest family group consisted of about  $20 \pm 5$  individuals while the smallest family group consisted of  $3 \pm 1$  individuals. A sample of the catalogue recognition file so far prepared is shown in figure 1 below.

**AB1- Bella**  
**AB1.12**  
**AB1.15**

**AB Family**



*Figure 1: The matriarch of the AB family with 2 calves born in 2012 (AB1.12) and 2015 (AB1.15).*

A training workshop for the security rangers was also held on 10<sup>th</sup> January 2020 with about 20 security guards targeted. The training however received 14 security guards with the training focusing on preparing the catalogue recognition files for both family groups and bulls for individually identifying elephants using their ears and tusks idiosyncrasies. This will assist in improving an understanding on the behaviour and demography of elephants in Koija group ranch and subsequently facilitate longitudinal studies on endocrine monitoring. The security guards were also trained how to distinguish between the males and females using their forehead and their backs as well as aging the elephants. Photos from the workshop proceedings are attached below.



*Figure 2: An interactive session during the training workshop at Naibunga group ranch headquarters.*



*Figure 3: A group photo session with the participants.*

### **Future plans**

Preparation of catalogue recognition file for monitoring elephant families will still be ongoing till March 2020 with some of the already trained security guards accompanying the researcher in the field for monitoring and preparing the catalogue for identifying elephant groups. A workshop has also been scheduled on April 2020 to build the capacity of researchers on the need to carryout longitudinal studies of endocrine function on endangered species within Laikipia.