

Makgadikgadi Lion Research and Monitoring

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Location: Makgadikgadi and Nxai Pans National Park and the Surrounding area

Project Objectives:- Lion monitoring and research around the Boteti fence.

Progress in the last three months

In the last three months I conducted a pioneer questionnaire with some Boteti farmers. The aim was to get their ideas in-terms of their relation to the lions. These data will be used in my M.sc write up. After these interviews, we went into the park to search for and successfully track lions.

I (Keitumetse Ngaka) attended an **Introduction to Research Methods course** at Okavango Research Institute (ORI) which took almost two months (from July to mid-August). The course helped me to focus my research questions. After the course, research questions agreed upon were as follows:

- Does wild-prey abundance have an influence on lions' diet composition?
- Is there a relationship between lion-predation intensity and farmers proximity to the park along the Boteti river?
- How has the fence influenced lion and livestock movement?
- How has the river influenced lion and livestock movement?
- What influence does seasonal wild-prey abundance have on lions' territory?
- What is the community's (farmers) tolerance level to the challenge and why is it that way?

Even though that is the case, the questions must not be so rigid. There must always be a room for allowing any changes that may occur during the course of the study in case some are found not to be very relevant.

The collar for "Meno a kwena" lioness (Lucky) has not yet been changed because this lioness is very shy. It is in most cases moving solitary. We also had success in July getting two satellite collars that were put onto a male and a female now makes work easier as I can now find the location of these lions at any time.

CTA and Boteti trip

We went to Grasslands game farm in September to test the Conditioned Taste Aversion (CTA) method with captive lions. The method is proposed to be used at the Boteti area lions if it could yield positive results. A formal report of the results of the CTA work at Grassland will be sent to the DWNP soon.



Figure 1: Dr Bill Given (left), Keitumetse Ngaka (center) and Rick McKenna (right) preparing beef baits for the lions to test the CTA method at Grasslands game farm.



Figure 2: Lioness sniffing into the beef bait and taking longer time than before, still deciding whether to eat or not. This was untreated bait after being given the treated one (bait) few days ago.

On the 25th to 27th September 2011 the same team went to Boteti to find some lions and introduce the temporary new research team members (Dr Bill and Rick) into the Boteti. The aim of this trip was for us all to consider the practical issues of using potentially using CTA on free ranging lions in the Boteti. The trip was very successful, we saw lots of lions and spent time in the study areas and Bill Given and Rick Mckenna learnt a lot. Of the lions we saw we can now say at present **there are a minimum of 8 lions along the Boteti river between the camp Meno-a-Kwena and Kumaga gate. We also believe there are two adult females south of this and an unknown number of males.**

The next three months plan

I aim to spend much time in the Boteti spending more time with lions with the aim of collecting data in the next three months. Within this time-period I also aim to get to farmers and conduct some thorough interviews.