



Mashatu



Research
Botswana

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THE NORTHERN TULI WILD DOG PROJECT

Craig Jackson

The wild dogs have covered large distances during the last four weeks. They are now a whole lot more familiar with the reserve, as well as some of the neighbouring properties... We had hoped that the pack would remain within reserves boundaries but after spending a good deal of time in the west, the dogs headed in a southwesterly direction. They moved as far south as the Kwa-Tuli property, after which they made their way back towards the Pont Drift area. From there the pack explored the central parts of the reserve for the first time and then moved back towards the Limpopo River. They recently made a quick trip to the southeast, but basically turned around

and headed straight back to the Pont Drift area.



The small black dots indicate GPS points of the wild dogs' movements over the past month

We have seen some very interesting reactions in response to chemical stimuli used in our Biofence experiment. For those less acquainted with the concept, our Biofence is a novel experiment, developed and led by Dr "Tico" McNutt, which aims to use chemical communication to limit the ranging behaviour of the wild dog pack. Since wild dogs are territorial and respect neighbours' territories, the experiment attempts to simulate occupied territories to the periphery of the reserve by placing faecal and urine samples, collected from another pack, in these areas. We are learning as the experiment runs its course, and hindsight is of course an exact science. Initially markings were deployed in a linear manner, but although the dogs may have detected these, once they moved through the line, there were no additional chemical signals to further reinforce the "occupied" state of that area.

When the dogs moved through the Biofence it provided us with the opportunity to reinforce the chemical stimuli in their immediate vicinity and monitor their response. The first test came when the dogs moved in a south westerly direction along the "backline" fence. I deployed the fragrant material in close proximity to where the dogs were resting during the heat of the day. As sunset approached, they proceeded in their south westerly direction, and bumped into the scent marks. They very clearly detected the marks as the whole pack spent a great deal of time sniffing and smelling. I left them soon thereafter as they were in an area with few roads and it was a little pointless trying to observe them after dark. The next day they were several kilometres north - 180 degrees opposite to the general direction they had been heading in the previous day. One swallow does not make a summer, so while their spatial response was very intriguing, we could by no means draw any conclusions from it. The experiment would need to be repeated. The dogs proceeded to spend the next few days near the "backline" fence, in the vicinity of the gate to Mothlabaneng. There is a spring there attracting good game and they seemed very content, hardly moving at all. I strategically put out a few seats along the watercourse and in the general vicinity, with dogs probably 2km from the closest mark.

Returning the following day, I could not pick up a signal from any of the collars. Eventually, after a long search, I found the dogs resting near Tuli Lodge. The distance between GPS points taken at their resting sites on the two consecutive days was 16.7km. That is of course a straight-line distance, so in reality they would have covered a far greater distance. Furthermore, they headed directly back to an area they know very well. The same response was observed after the pack lost their alpha female. A couple of days later the dogs made their way outside of the reserve, once again in a south



westerly direction. By this stage our supply of seats had been depleted and after an SOS (Send Out Seats!) call to Tico, he kindly flew in reinforcements. These deployments too seemed to alter the dogs' movements, and they made their way back to the reserve...

While the initial Biofence was laid out in an attempt to restrict the pack's movement, it appears to have had a remarkable effect on the three dispersing males. They broke away from the pack a day after release and went off in search of their own females. They moved due west from the release site, and then proceeded to follow the Biofence all the way around the reserve and they are currently in the north east. It appears that they have picked up on the chemical cues and have followed these in an attempt to locate a few lady-friends. Unfortunately there is only one old and rather weak collar on one of these males and it now seems to be working intermittently. Ideally we would like to replace this collar with a GPS collar, as this will facilitate remote collection of data and will us to study the animals' exact movements in relation to the Biofence.

Puppies on the way...

About two weeks ago it became apparent that, in addition to the alpha female (Cairo), a second female (Nairobi) is also pregnant. This is a little unusual as in the majority of cases only the alpha female gives birth. When resting, Namib – the alpha male – and his two ladies always lie close together. Since mating was observed between Namib and Cairo we expect her to give birth in about two weeks time. We are not sure when Nairobi will give birth, but it appears that it will be a little later. This will result in an interesting change for the pack, especially when the pups are weaned and need to be fed. With an average of ten pups per litter, there could be a lot of little mouths to feed. Mortality needs to be taken into account and not all the pups will survive.

Hunting

There has been a gradual but progressive shift in the pack's hunting ability. Initially, just after release, they really battled to hunt and were a little on the skinny side. They then started killing more frequently but targeted mostly young animals. Now it is safe to say they are very competent hunters and feed predominantly on adult impala. While several kills go undetected, recently I saw them take an adult impala ewe on the Saturday evening, an eland calf (still a sizeable meal!) on the Sunday morning, a large impala ram that evening, followed by an adult impala ewe the next morning. The dogs appear to be in very good condition.



The dogs had just caught the eland calf when I found them early in the morning and the eland mother was trying to chase the dogs off her calf. She proceeded to hassle the dogs for close on ten minutes, even though it was obviously too late to be of any use. While some of the pack fed and dragged the carcass away, she followed and was harassed by other dogs that repeatedly snapped at her heels.



Eventually the dogs allowed her enough time, just a few seconds, to sniff the carcass (photo on L), after which she left the dogs alone. While many species may have been very frantic given the situation, this gracious eland moved about slowly, not running, and paid very little attention to the dogs snapping at her.

Vehicle

EWT have kindly purchased a new project vehicle – a 2004 Land Rover pick-up. The former vehicle had seen service on several projects, was a little long in the tooth, and was not the most comfortable; especially considering the long hours spent driving around the reserve. The new one is great and certainly looks the part! Thanks EWT. In the interests of looking after the Landy, it would be great we could equip it with a more rugged set of off-road tyres. The reserve's



terrain is particularly unforgiving on tyres and should anyone out there have a set of suitable tyres at their disposal, they would be very much appreciated! In addition, a high-lift jack would also be of great use!!!

Up-coming work

Rex Masupe, our community liaison officer, will be spending a lot of time in the neighbouring communities during the next few weeks. This will include visits to schools, conducting a questionnaire survey and other follow-up visits to village leaders.

Email list

Should you have received this update "via the grapevine" and would like me to email it to you directly in future, please send me an email (erjackson@zoology.up.ac.za) and I will add you to the mailing list. Please note that I do not have regular email contact and may not respond to email for several weeks at time, and this also hampers getting regular updates out.