



SERENGETI CHEETAH PROJECT NEWSLETTER

JUNE 2009



Karibu to the Serengeti Cheetah Project! As this is the very first newsletter written exclusively for African Dream Alumni, I would like to just briefly introduce the project and let you know a little about what we do, and more importantly why we do it.

The Serengeti Cheetah Project (SCP) was set up in 1974 by George & Lory Frame. Since then, it has been responsible for collecting demography data to monitor the Serengeti cheetah population. (Demography data means where are the cheetahs and how are they doing) Now you might be thinking, what could one possibly still want to know after 35 years? That's a good question. However to be able to monitor a population, long term demography data is needed. To understand how viable the population is doing today, it is important to know how the population responds to different environmental as well as human factors. Long term demography data allows us to make predictions models as to how viable the population is at present, as well as in the future. It helps to get an insight as to what the population will be doing 10-20 years from now. Furthermore, when the government has to deal with issues such as how to manage areas that border the park, long term data gives a clear indication as to how the cheetah population will be effected by different management decisions.

A Day in the Life of a Cheetah Researcher

A day in the life of a cheetah researcher starts when the sun comes up – which means that at the tender age of 27 my ability to sleep in has been completely lost! My office is spread across the short grass plains of the Serengeti where you will find me most days, driving around looking for cheetahs. To find cheetahs one needs a good pair of binoculars, no heat haze, and high vantage points to scan from. Unlike the Lion project we do not use radio collars to collect our demography data. One of the reasons for this is that cheetahs have a different social structure than Lions. On the Lion project, one female per pride is collared, so chances are if you find her you will find the rest of the pride. Cheetah females are solitary, and males are either solitary or form a coalition with one or two other males, which mean that for demography purposes you would need to collar almost ALL of them to be able to track them. To collar all cheetah individuals would be expensive and you would have to deal with risks such as failing collars



as well as placing the cheetah under anaesthetics. Having said this, radio collars can be very helpful to address specific important questions relevant to cheetah conservation. Examples include obtaining information on habitat use. When cheetahs are found by sight, they are found in areas where they can be easily seen – i.e. in short grass and in open habitats – but this does not necessarily reflect where they go. Only radio collaring can answer questions such as do cheetahs prefer thick bush or open grassland. Radio collaring also gives an accurate estimate of total home range, and dispersal patterns. All of this information can be critical for the management of protected areas, which is why there are future plans to collar a small number of cheetah individuals.

Once I have found a cheetah sighting I get my ID shot and try to identify it. I take notes on the individuals' wellbeing, and lastly if we do not have DNA material (collected from scat) from that individual I have to wait around to collect it, which can sometimes take a very very long time!! Apart from scanning for cheetah's I also have to deal with the every day issues of living in the bush such as: getting stuck in the mud! The car breaking down, or dodging the lions that are lying on the Kopjes located between the cheetah house and the outhouse (going to the loo has never been so risky)!

How to Identify a Cheetah?



Once a cheetah has been sighted we need to get an ID shot, which is taken from a side view angle. To identify the individual, the spots on the side of the cheetah are used. Cheetah spots can be compared to our finger prints; they are unique for each individual. The little spots in between the big spots are very helpful for identification! Once we have the ID shot, the next step is to identify who it is that we are with! In our study area we have about 65 adults, they all have a name and an ID card (left). However we do not usually have to go through all 65 cards to figure out who it is we are with. The trick is to consider location and composition of the group. Is it a mum with cubs or is it a coalition of males? What area are we in? For example, I am driving around the Ndotu area and I come across a mother with 2 cubs. I know that currently there are two mothers with cubs in this

area, Emily and Eddie. So I will compare my ID shot to the ID cards of both Emily and Eddie to figure out who I am with!

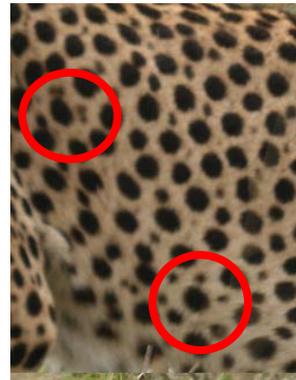


Try it yourself. Two females that hang around in the Gol area are Amarula and Almond. The ID shot that I have made is on your right – who does it match up too?

(Answer can be found at the end of the report!)



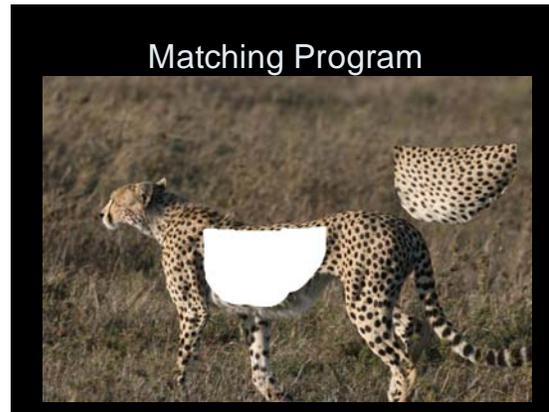
Almond



Amarula



When we are not able to ID an individual in the field, we will run our ID shots through a matching program – a true lifesaver! The matching program extracts the side spot pattern of the cheetah in our ID shot and will compare it to the side spot patterns of every individual that we have on record! It will then give a similarity index and let us know who the cheetah in our ID shot is most similar too.



This was a small introduction on what we do, how we do it and why we do it. Apart from the demography there is also a genetics part of the project which is just as interesting, its about cheetah females being highly promiscuous, but as all good soap operas, I'll save that for the next news letter and start introducing you to some of our stars!

The Legend of Eleanor

To start with a bang I would like to introduce you to the legendary mother of the Ndutu area. Some of you may have met her already; she goes by the name of Eleanor and was the famous mother of 6 cubs!! When I say famous, I literally mean, tour drivers were stopping me on the road to ask where they could find her, and tourists were e-mailing me asking for regular updates. No joke – this cheetah was a star!!



Eleanor and her 6 cubs



Eleanor: the legendary mother of six!



On the 23rd of January 2008 I was driving along the Ndotu marsh, when I got stopped by a tour driver who told me with great enthusiasm that he had seen a cheetah with 6 cubs! He had given me some very specific directions as to where I could find her which was a great relief! (More often than not when people try and give directions as to where they saw cheetahs I get told something along the line of:

- ‘They were out there on the plains.. you know where the trees are??’ – not a very detailed description...
- ‘Go to the marsh- take a left – follow the woodlands – you know that one big tree?? (Meanwhile I’m thinking this is great!!! I totally know where that is....until I get told) Yeah they’re not there, they’re about 5 km northwest of that...

Anyhow this tour driver knew what he was talking about and I found them!!! On this hot January day Eleanor had introduced us to her tiny tiny cubs, all six of them. Cheetah sightings just don’t get any better than this!



Eleanor and her 6 cubs

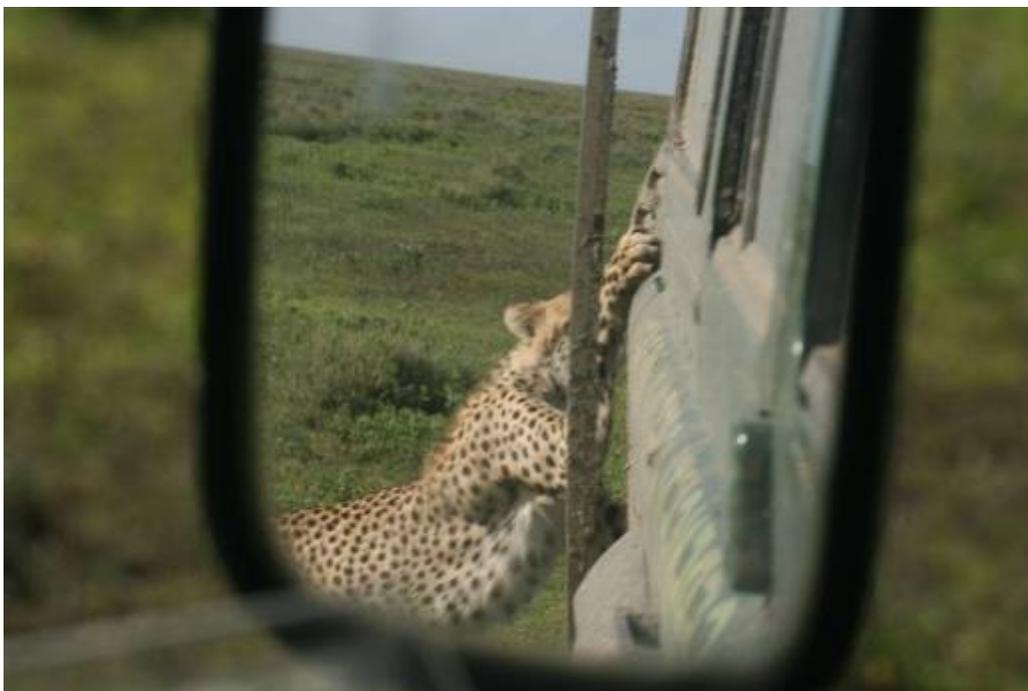
From the months of January to June the gang roamed the plains between Ndutu and Kusini. The cubs were often found sitting under tour vehicles! This was great for the cubs because it meant that they could get out of the sun, but it was a little less exciting for the tourists because it meant that they couldn't go anywhere! Not only were they stuck in one place until the cubs decided to move, but they could also not see anything! Needless to say the cubs got very habituated.

The last time the gang of 7 was seen by the project was June 2008. It is not unusual to not see individuals for a certain length of time. When the seasons shift from wet season to dry season, the gazelles migrate back north and the cheetahs follow. From June 2008 to December 2008, Eleanor and her cubs had fallen off the radar. However during this period of 6 months, Patrick from the Lion project had seen a mum with 5 cubs around Moru kopjes area. He had made pictures, when I identified the mother I saw it was Eleanor, she had lost one cub.

December 20th, 5 days before Christmas Eleanor and her mob of 5 almost adult cubs were back on the Makow plains! I was chuffed to see them again! Christmas had come early! The cubs were in a playful mood and were running around the car, under the car and even got on top of the car! As they had seen so many vehicles as youngsters they knew not to be afraid and so jumping on the cars became a bit of a habit. We do try to avoid cheetah's jumping up onto cars, although it does give the tourists an 'up-close-and-personal' experience, we worry that the cubs might injure themselves or scare tourists. Fortunately, cubs usually grow out of this behaviour when they become adults.



Eleanor's 5 cubs – December 2008



One of Eleanor's cubs checking out my back tyres before jumping on top of them!



Currently Eleanor's gang is no longer with their mother. Cheetah cubs will stay with their mother for about 18 months, after which brothers and sisters will stay together for a remaining 6 months. When the female cubs become sexually mature they will split from their siblings and become solitary. Brothers on the other hand form a coalition and stay together for life. Although I haven't seen the 5 siblings all together recently, one can assume that they will remain together till about September before the 3 female cubs go off on their own, and the two brothers may or may not look for a territory to claim. Eleanor has done a truly amazing job at raising 5 of her 6 cubs to adulthood. On average 5% of all cubs become adults – that's 1 in 20! There is nothing like a hard fact to but things into perspective. And if that's not impressive enough, this was her first litter!

Eleanor was last seen by herself on the first of April 2009, and she was lactating, meaning we can expect to see her with cubs pretty again soon!!

First There Were 3 Then There Were 4

Loopy Lou was first seen as a cub in May 2001. By 2006 she had raised cubs of her own, two of which are known to the Project as Kate and Emily.

In the wet season of 2008 both Kate and Loopy Lou had 3 cubs each. The cubs were almost the same age, Kate's cubs being about 2 months younger.

On January 15th – I last saw Kate with 3 cubs, almost two weeks later on the 27th she was down to two. Being a cheetah mother is a hard life, it is not uncommon for mothers to loose their cubs. Considering this was Kate's first litter, she was doing well to get this far.



Loopy Lou



In February, out of the blue, there was a lot of talk of a female cheetah with four cubs hanging around the Ndutu area. I had no idea who this was, I had never seen a mother with 4 cubs, let alone 4 big ones, surely I should have know who they were. One afternoon at Ndutu lodge I overheard a lady saying they had seen the mother of 4 that morning, and they were ready to go and look for them again that afternoon. Curiosity got the better of me and I asked if I could be so rude as to follow her seeing as I had never found this cheetah mum myself. Finally I had found the mother (by cheating!); I made ID shots, and was ready to start identifying her. I went through all the Ndutu female ID cards... none of them matched up to my pictures. This is when the matching program is a true life saviour. Who was this mysterious mum?? It was Loopy Lou!!

So then the next question was to find out who the fourth cub was? It was Kate's missing cub! Loopy Lou had adopted (or kidnapped...depending on weather you're an optimist or a pessimist) Kate's third cub!!!

This was very exciting news! Cheetah mothers will adopt abandoned cubs. As I mentioned before, a cheetah mom will leave her cubs at about 18 months, after which the siblings will stay together for another half year. The more siblings present the higher their chances of surviving the first 6 months of their lives without their mothers. It means there are more of them to catch prey, more eyes to look out for danger, so although it is another mouth to feed and another little soul to look after, it is in a mothers best interest for the survival of her own cubs to adopt abandoned/lost cheetah cubs.

Loopy Lou's cubs are presently all independent! She raised a female cub, two male cubs and an adopted female cub (Kate's cub) to adulthood. At one point her male cubs were seen on their own, looking after themselves, however two weeks later they had reunited with their adopted sister for a period of a few days. It is possible that as the adopted sister was a little younger than the rest, she needed the extra support from her brothers before she was confident to look after herself!

Loopy Lou was last seen on May 2nd. She is now looking after her third litter, and is the proud mother of 3 little cubs!

Kate is also looking after her second litter – a little male cub!



Kate and her little male cub – November 2008



The Males of the Ndotu area

Not all males are territorial, some males or male coalitions (and all females) have what is called a home range which can be as large as 800km². Territories on the other hand are usually about 50 km². The main difference between a territory and a home range is that the resources within a home range are not defended whereas the resources in a territory are defended. In the Ndotu area there are two main territories that are defended by Cheetah Males. One is located around twin hills, and stretches out across the Makow plains. The other is located near the big Marsh, around two trees area.

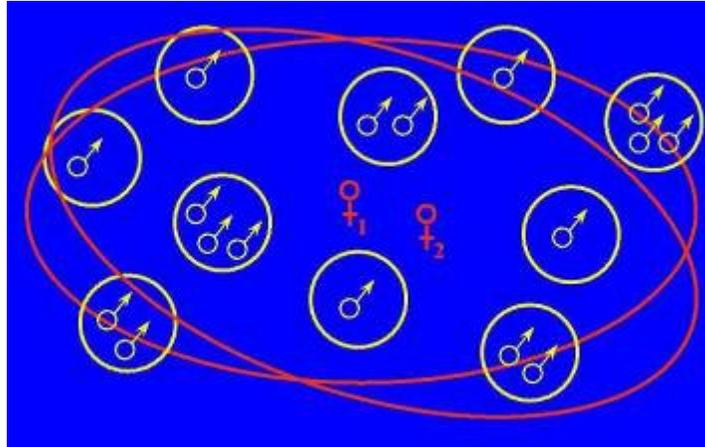


Illustration shows the male territories in which female home ranges overlap

In the wet season of 2008 there were 3 different male coalitions. Coalitions of males are formed between brothers, who stay together for life, or unrelated males that pair up during adolescence. The three male coalitions of the Ndotu area are all made up of brothers. Let me introduce them to you! First up are Howard and Buffett. They were first seen in December 2005 with their mother Phoenix.



Espresso, Latte & Mocha enjoying the view from their territory around two trees



Next we have Espresso, Latte and Mocha, who were the three male cubs of Lady Godiva and were first seen in November 2005.

Lastly we have Hamisi and Marando, named after two legendary cheetah spotters working at Ndutu Safari Lodge. These boys were never seen with their mother, but were first seen as adolescents in September 2005 with their sister.

Two main territories and three male coalitions can be a recipe for disaster. The big question is: who is ruling where? In 2007 Hamisi and Marando were kings of the two trees area. When males are territory, they defend their resources within it, that includes and female cheetahs that happen to wander through. Any female that they would see passing through the area was kidnapped. Make no mistake there is absolutely nothing romantic about cheetah romance! In fact the other day I was giving a lecture to some tour guides. (We are sometimes asked by tour operators to give their guides a talk, not only on cheetah biology but also on the appropriate ways to behave around cheetah, and how to properly approach them.) One tour guide had seen a documentary made by Alan Root about a female cheetah in a fight with two male cheetahs and he wanted to know why that would happen. I had to think about this for a minute – cheetah males will pick a fight with another male if he happened to wander through a territory that wasn't his.. but I had never seen males fighting with a female. Then suddenly it dawned on me, what he was seeing was cheetah romance between a consort pair. Like I said – there is absolutely nothing romantic about it, in human terms, a second date would be out of the question! In any case Hamisi and Marando were seen with a female cheetah who still needs a name but is known by the project as AH986, and they were seen with her on two different occasions! Apparently she was up for the second date!

While Hamisi and Marando were ruling the two trees territory, Howard and Buffett were seen to wander through from time to time; the last time they were seen in this area was in October 2007. One month later, Hamisi and Marando were seen scent marking their territory, and Marando was clearly limping. It is possible that the two brothers had a punch up with Howard and Buffett, and as a result Howard and Buffett dropped off the radar for almost a year!



Hamisi and Marando – last seen April 2008



At the same time of Hamisi and Marando's rule of two trees are, the three boys, Espresso, Latte and Mocha were kings of twin hills. However things shifted in the summer of 2008. Hamisi and Marando's rule of their two trees territory however sweet it may have been was very short! They were last seen on the 2nd of April 2008, and have never been seen since, we can only speculate what might have happened to them!

With Hamisi and Marando no longer around there was a new territory up for grabs. One might think that Howard and Buffett could move in without troubles, which would make sense. However, Howard & Buffett had their eye on the twin hills territory instead. So is it possible to win over a territory 2 against 3? I don't know how it happened but in August 2008, I had seen that the three boys had moved up to the two trees area and Howard and Buffett had successfully taken over the twin hills territory!



Howard marking his territory at Ballenties Castle, on the Makow plains

So that's how it stands at the moment, Howard and Buffett own twin hills, and the three boys own two trees. There are a couple of new kids on the block however. Loopy Lou's male cubs are independent. At the moment it doesn't look like they are looking to hold a territory. On the 28th of Feb 2009 they were still seen at Ndutu, however about six weeks later on the 11th of April 2009 I saw them at Semetu, which is in the Serengeti, located about 60km from where I saw them last. This doesn't mean that they never will hold a territory. They do need to be careful about where they wander through, bumping into territorial males can get them into some trouble!



The Importance of the Cheetah Watch Campaign



Now that you have a better idea of what it is that we do and you have met some of the cheetahs, I'd like to take a brief moment to talk about the Cheetah watch campaign.

What its purpose is and why it's important! The cheetah watch campaign tries to motivate tourists to send their pictures to the Serengeti Cheetah Project.

The project is made up of only a small team of people, with only one person dedicated

to monitoring the Serengeti cheetahs. It is impossible for us to cover the whole region, and we never know exactly what is going on. However, we can be helped by teams of tourists and guides who pass through, enjoying seeing the cheetahs of the Serengeti, on a daily basis. Every time a tourist takes a good side view shot of a cheetah, he or she could potentially provide important information about the Serengeti cheetahs, and in so doing help us develop a better picture of the population, including tracking the individuals we know across a wider area.

In return for your best side view shot, we will ID the individual and let you know who it is that you have seen, and a little bit about them. In the past pictures sent in by tourists have helped us fill in the missing gaps. A good example to illustrate this happened on Valentines Day 2008. I got a call from the Naabi ranger post letting me know that a cheetah was found dead at Gol Kopjes. I went to the site, the rangers showed me where the body was, but I was unable to identify it. Nature doesn't waste anything, the vultures, hyenas and insects had all had their turn, and there wasn't much left of the carcass. Thanks to Gasto, the chief ranger at Naabi gate who had made a picture of the cheetah carcass using his phone (!) I was able to ID the individual as Pinenut. Pinenut was a single male without a territory. So how did Pinenut die? Was he killed by a lion? Was he sick? Did he have a fight with Maurus and Jerome, the territorial males at Gol? I was sitting at the Ndotu campfire that night and got talking to some tourists camping there, I told them what I had seen that day, and as luck would have it, they had seen two males pick a fight with another male the day before at Gol Kopjes. We checked out the pictures, sure enough, Maurus and Jerome were having a punch up with Pinenut, who lost the fight as well as his life! Thanks to pictures sent in by tourists the life story of Pinenut was complete!



Pinenut



On a larger scale, thanks to pictures sent in by tourists we were able to map corridors, which are important for cheetah conservation. For example, one tourist sent in a picture of a cheetah they saw at Manyara National Park. Manyara doesn't have a known cheetah population; however this is evidence that suggests that Manyara National park is used as a corridor connecting one protected area with another, and that cheetah's are using this corridor. When the government has to make decisions about land use planning, thanks to the cheetah watch campaign we have hard evidence as to why certain areas need to stay protected to ensure that the cheetah population remains viable!

Another good example that illustrates the importance of the Cheetah watch campaign, concerns the cheetahs in the Crater. The crater is not part of our study area, however we are currently monitoring about six different individuals and this is all thanks to tourists who send in their pictures.

For this very reason I would like to encourage anyone who has a good side view picture of a cheetah to send it to the Serengeti Cheetah Project. It doesn't matter if the picture was taken ages ago, or where it was taken in Tanzania, all information is more than welcome! We are particularly keen on information outside the Serengeti plains

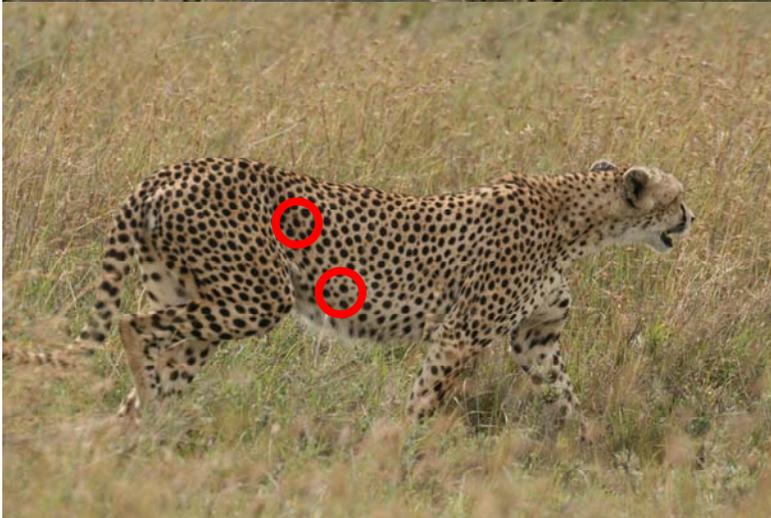
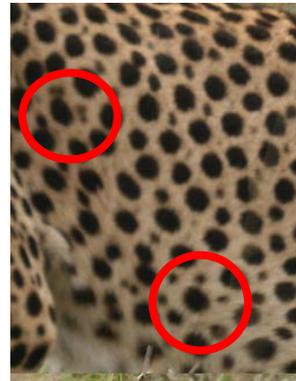


Ladies and Gents of African Dream Alumni, I hope you have enjoyed the very first edition of the Serengeti Cheetah Project newsletter. Next newsletter I'll get you up to date with the Cheetahs introduced to you this time, introduce you to new cheetahs, and talk a bit about the genetics aspect of our project. You might have a better idea as to why cheetah romance isn't so romantic!

Lastly below is answer to the Cheetah ID question. The cheetah in the ID shot is.....



Almond



Amarula