



Tuli Elephant Diaries

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BEHIND THE SCENES WITH THE ELEPHANTS OF TULI – A PRIVILEGE AND A PLEASURE

The story of a volunteer on the elephant research project

From a very young age my favorite animal was the elephant - my mother tells me that I carried around either a soft toy elephant that she made for me or a lead one almost all the time. After a spectacular introduction to Botswana's elephants in November 1990 – landing on the Chobe River in a 1944 built Catalina aircraft and taking an evening game drive surrounded by more elephants than I had seen in my life before – I returned again and again to different parts of this wonderful country with its diverse habitats.

Through the charity Earthwatch I helped as a volunteer taking data for a vegetation survey as part of an assessment of the impact of elephants on vegetation in the north of Botswana, monitoring elephant interaction with other species at

waterholes and seed dispersal in elephant dung in Hwange, Zimbabwe, tracking and behavior monitoring of elephants in Namibia and assisting with data collection for a long term elephant study in Tsavo West, Kenya. On my way home from one of these trips I bought Clive Walker's book "Dear Elephant Sir" in which I read about the Tuli elephants for the first time. Not mentioned in any British guide books to Botswana the Tuli area was for me remote and inaccessible, but still the dream to come here was born.

In 2008 my travel agent emailed me details of the Shadow Research Volunteer Program at Mashatu and I leapt at the chance to come out for a whole month to (hopefully) make a positive contribution to the research and to extend my knowledge of elephants, especially the techniques for identifying individuals. This necessitated a whole year of stringent economizing at home through an unusually bad winter but, as usual with my African trips, proved to be worth every penny.

Arriving on September 13th 2009 I felt overwhelmed by

the number of people to get to know and was very grateful to



have Mark, Jeanetta's Field Assistant, to show me around and get me acclimatized. On my first morning we went out and found Agatha's herd by radio tracking, finding them with Cheeky's group drinking at a waterhole in a river bed. It was so good to be able to spend time with them, watching how they dug to reach fresh, clean water under the earth in preference to the brackish water in the waterhole. The following day we went out with packed lunch to search for other herds by following tracks and I was introduced to Christina and her herd, including Clothilda and Holey. They were in close association with Stella's herd (Hestelle's) herd, who moved through Fever Berry bush feeding as they went. Mark drove so that we could sit and watch as they moved towards and past us. In fact they were so relaxed that Gemma, recognizable by her one left tusk,

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came and dozed close to the car with Annabel close by. With elephants too close for my long lens I put the camera down and simply enjoyed the moment as a young bull walked past within touching distance. With Mark to explain who was who this really was a dream come true for me – sitting on my own with an elephant researcher surrounded by these gentle giants who he knew by name was something I had longed to do for many, many years. Little did I realize that I too would come to be deeply involved with this particular elephant family, led by the stately and venerable Stella with the distinctive triangle in her left ear, before my time at Mashatu was over.

After our times in the field Mark and I would pour over the photographs we had taken and compare them with the



elephant ID database on his computer to confirm who we had seen. He showed me how he entered the data he had taken and explained to me something of the work he planned to do on elephant feeding behavior. However research is not all about spending time in the field with the elephants, confirming IDs and entering data. Over the next few days there were tasks to be done in the Discovery Room preparing it for the visit of a National Geographic group. Also Mark and I measured the molars in a collection on elephant lower jaw bones and attempted to ascertain which ones they were so that I could paint them (molar ones black, molar twos white etc) for a new display.

September 18th found us both in the field again, Mark on an Ivory drive with Stella's herd and me on a game drive which introduced me to Kolobje and her herd (identified later from my photos) including Kinkle with her distinctive kinked tail. I was thrilled to have met another herd new to me. Contrast this with September 19th when the weather changed from hot

and sunny to cool and cloudy and Mark and I could find not one elephant anywhere, not even a hint of a signal from Agatha. With cold, grey, windy weather more reminiscent of the UK than Botswana it was no hardship to work in camp the next day.

Monday September 21st proved to be one of the most special days of my stay. With Mark away for the day I went out on the afternoon game drive and in next to no time saw more elephants than I had in the whole of my trip so far! I took as many photos as I could, from which we subsequently identified some of Stella's herd and Charge's herd – another new herd for me. Then another herd appeared in the distance and Fish, our Ranger, spotted a tiny calf amongst them. Going closer we found that the calf must have been born that morning because the mother still had streaks of blood on her back legs. Fortunately we had an excellent view of the herd, including many distinctive left ears, and the mother had a clearly visible notch in her left ear. Later from the printed elephant ID book I was able to identify the herd as Diana's and the mother as DI05. The calf, a little bull, was the youngest calf I had ever seen. I was so thrilled to be the first member of the elephant team to see him and to watch how the herd clustered round to protect him as they walked. He has joined a small group of "my" elephants – various individuals in Botswana and Kenya with whom I feel a particular bond – and I am hoping that Mark might be able to send me the occasional photograph of him in the future. Thanks to Jeanetta's explanation of how a young bull grows and matures I will be able to think of him at key stages in his life.



With Mark having to leave the country due to delays in his residency permit approval much of the next few days was spent on reading, various Discovery Room tasks and predator related activities. Thanks to Andre I was able to fulfill a long held ambition to find out how to identify individual lions by whisker patterns and leopards by spot configurations on parts of the face and body. He also showed me some photos from his camera traps, including aardvarks and some interesting views of our more curious elephants! Craig, whose Wild Dogs were across the border in South Africa, went through his presentation with me. I had been lucky enough to have a very distant sighting of them on the Limpopo River bed before they left and was grateful for the chance to learn about bio boundaries.

Jeanetta arrived on September 27th and the following morning provided a wealth of elephants with eighty four in the first sighting. These included Funny Face's herd, Dorothy and family and Theresa's herd as well as Charge's herd. The next morning, September 29th, proved to be another milestone of my stay. With Jeanetta out on an Ivory Drive I went on the morning game drive with Elvis. We all found Stella's herd and noticed that a young tuskless female had a snare round her neck. The wire was tightly round her neck just behind her ears with loose wire around her right leg and catching in branches as she walked. This would have to be removed before it became much tighter, and that

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would mean a darting.

Jeanetta contacted Reuben, a veterinarian from the Department of Wildlife and National Parks, who said that he could be with us on October 1st. September 30th was a cold day with a chilly wind and a sky thick with heavy grey cloud. Jeanetta and I went out both morning and afternoon to undertake an extensive search but found not one elephant, let alone the herd that we were looking for. After brunch I also checked that we had various essential equipment ready in our vehicle including water for keeping the elephant cool and sample kits (for hair, skin and blood) labeled with the herd number (HE), date and "female, 6 – 10 years". The vet arrived at about 10:30 that evening after a very long drive. That night Jeanetta and I both slept very little for worrying about what would happen if we could not find Stella's herd the next day, and what would happen if we found them but the young female was missing.



On the morning of October 1st Africa smiled on us. Jeanetta and I left early to resume our search and all the rangers out were searching as well. Dikgang radioed to say that he had seen them in the distance heading towards an area that Jeanetta and I had been to when we first went out. Back we drove and spotted them approaching in the distance.



When they came closer we saw, with sighs of relief all round that the young female was still with them. We followed them and at a suitable spot met with Eric and his guests, an 'elephant and wild dog group' keen to take part in the darting. Jeanetta gave us a briefing and ensured that every essential task was allocated. Then I joined Eric's group – only staff and researchers can go in the darting vehicle and the vehicle given the task of keeping the rest of the family away – while the darting took place. Six minutes after the dart was fired the young female went down. Jeanetta told us that Gemma, who we decided must be the young female's mother, did all she could to protect her daughter and drive the vehicles away, going as close as she could to them without actually making contact. Once we were allowed off our vehicle there were many tasks to be done in as short a time as possible. With responsibility for the data sheet with various measurements

taken by the elephant and wild dog group, all of whom seemed to be firing numbers at me at the same time, I had no time for photographs at the beginning and did not see the snare being removed. This was difficult because the wire was so thick and tangled but fortunately it had not yet penetrated the skin. Once the data had been gathered I was free to touch our elephant, feeling the softness of the soles of her feet, the roughness of her body, the smoothness of the back of her ear and the calluses on the side of her trunk that she favored for twisting vegetation when eating. It was a rare privilege to be able to touch a wild African elephant that we had seen with her family only a few days before. Reuben administered the antidote and we all got back onto the vehicle to watch our elephant come round. This happened relatively quickly and she did not seem too disorientated. She got to her feet a little unsteadily but soon grabbed a piece of vegetation. She raised her trunk to touch her head while looking at us as if to thank us for removing the wire that had been bothering her. Gemma, a little unsure at first, walked across from the herd to greet her daughter and both walked calmly back to their family. Returning to camp it was amazing that we had accomplished a darting and still returned in time for brunch at 10:00am.

For me a valuable opportunity came to complete the story two days later on October 3rd. Out on an Ivory drive with Jeanetta and guests from the Tent Camp we found Stella's herd. Our female, clearly identifiable by the blue stain from the wound spay applied to the darting site and an area of slight swelling around this, was peacefully back with her family walking and eating as if nothing had happened at all.

The whole family was as relaxed as they usually are. To have had the chance to spend time with this family before the snaring, to see the snare, to participate in the darting and to see the family after the darting is an experience that will remain with me for the rest of my life. To stay for a month had definitely been the right decision.



The next day, October 4th, saw yet another change in the weather, this time to rain. Grateful that I had brought a waterproof I set out on the morning game drive with the new responsibility of completing as much as I could of the Herd Data Sheets as well as taking potential ID photographs if we saw elephants. Luckily by the time we came across a herd the rain had eased enough not to completely drench the paperwork and I was able to take photographs. On the evening drive we stopped for sundowners overlooking Nel's Vlei, where I counted 52 elephants feeding on grass in the Vlei and took data throughout our stop. The following afternoon brought a better sighting of a herd whose matriarch had particularly beautiful tusks. When Jeanetta later downloaded my photographs

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to her computer she identified this as Ilze. We also found a bull on the banks of the Majale River. He slipped and slid down the bank and stood near the back of our vehicle – the perfect opportunity for me to get a good close up of the distinctive notches in his left ear! – for a while before crossing to the opposite bank and continuing on his way.



On October 6th I was introduced to yet another aspect of the research when in the morning Jeanetta and I set off to find a place where Andre had found that a large elephant had died some time ago and bones were still there bleached white by the sun. He had told Jeanetta that many of the bones were present and she thought some would be worth retrieving for the Discovery Room. With the GPS co-ordinates we drove to the far west of the reserve past the archeological site and the sacred rock and, after getting slightly stuck on the way, found the site not far from the banks of the Motloutse Riverbed. According to an extract that I had copied from old book that I have at home the name Motloutse means “Great Elephant” which proved to be appropriate since the remains appeared to be of a large mature bull. Jeanetta and I were debating how to get the best of the

bones back to camp when out of the bush came Rex and his team, who had silently surrounded the area when they heard voices thinking we might be poachers. Rex drove our vehicle across the riverbed and his team loaded the bones for us. The skull was so heavy that it took three men to carry it. There was no clue as to how the elephant had died but the carcass appeared to have been untouched by scavenging hyenas since the bones had not been dispersed. I had never given much thought as to where the bones on display in the Discovery Room came from so this was a valuable insight into what goes on behind the scenes. A sundowner stop near to Nel's Vlei again that evening provided a sighting of at least 83 elephants (probably more since the youngest calves would not have been seen in the long grass) and the chance to listen as one group swished through the water as darkness fell.

The following morning Jeanetta and I set out in search of elephants and found an aggregation of two or more family groups moving in a determined fashion towards an area of acacia. It was amazing how quickly such a large number of elephants could disappear into the bush but we kept track of one family until they chose a Mashatu tree to rest under for the heat of the day. The matriarch had a very distinctive fold in her left ear and Jeanetta thought they might be a Tuli group that she seldom saw. It was a valuable opportunity to take ID photos and to learn from Jeanetta about the structure of that particular family. I was in awe of how she could keep track of whose ears she had photos of and which left ear went with which right, even in such a relatively small group. In the afternoon a good day was completed in style when on the game drive we saw Matswane, the collared male lion, mating with a young lioness as darkness fell. We unanimously agreed to forgo the sundowner stop that evening!

The morning of October 8th was a bit sad for me. Jeanetta took guests from Tent Camp on an Ivory Drive and I knew that this was my last chance to go out with her during my stay since she had to leave that day after brunch although I had two days more. We drove a long way in the increasingly hot sun and eventually found elephants browsing on *acacia tortilis*. To my delight it was Stella and her herd. They were very spread out over a large area feeding. As we watched Stella and Gemma close to us I kept an eye on the more distant members of the herd and was able to get a couple of photos of the young tuskless female from whom we had removed the snare. The blue color from the wound spray had become much fainter and there was just a slight swelling where the dart had gone in. I watched as she disappeared into the bush and silently wished her well. Jeanetta speculated about what the future of the herd might be when Stella passes away. I quietly said a last goodbye to this magnificent old lady, knowing that even if I do return as a guest in the green season of 2011 (a trip already taking shape in my mind) it is likely that I will not see her again. It was fitting that this family, with whom I had shared so much during my stay, should be the one who we saw on my final day with Jeanetta.

Africa would not allow me to be sad for long. During the game drive on the same afternoon I was thrilled to be able to photograph an illusive male Bush Pig, Ground Hornbill (my favorite bird) and another session of Matswane mating (this time in much better light for photographs!).

From the excitement of a darting to the pleasure of spending time observing and identifying elephants in the field, from completing data sheets about elephants who I saw on game drives to the more backroom tasks of painting elephant molars and cleaning fish tanks and to the unexpected job of recording details of my stay on computer my time here has been rich, varied and unpredictable. I realized how comparatively little I knew about elephants before I came and relished the opportunity to learn so much more from Jeanetta with her ten years' knowledge of this population. I am profoundly grateful for the open access to all that goes on behind the scenes and especially for the chance to use the hard copy elephant ID book between Mark leaving and Jeanetta arriving.



This has been a truly valuable once in a lifetime chance to experience the world of animal research as it really is, with all its rich variety of unpredictable and wide ranging happenings every day. My previous experience with Earthwatch has been as a member of small teams arriving in the field to do one or more specific tasks of data collection for a maximum of two weeks. Now I realize that an Earthwatch team brings its own dynamics and must change the whole feel of the project for the resident researcher. One researcher once told me that, much as they enjoyed having Earthwatch teams and appreciated the high quality of data collected, they looked forward to going out on their own in the field again once each team had left. Having been able to spend time on my own with first Mark and then Jeanetta with the Tuli elephants, I can for the first time truly understand how that researcher felt. To experience the real world of research is something I will remember and treasure for the rest of my life.

Though the focus of this piece is the elephant work – my major interest – there were all sorts of other good things to enjoy from learning lion and leopard identification techniques from Andre to finding out about Bio Boundaries as applied to Wild Dogs from Craig. I saw and photographed two new animals for me – Bush Pig and Klipspringer –, watched Springhares mating after dark, saw more leopards than I had encountered in all my previous trips to Africa combined and for the first time saw a lion who I knew by name mating. I shall indeed take home a host of precious memories (not to mention several memory cards full of photographs) from my stay at Mashatu.

To Jeanetta and Mark I say a very special, elephant-sized thank you for sharing your time and your resources with me and for teaching me so much. To Andre and Craig thanks for the valuable insights into your work. To the Rangers and Trackers big thanks for some amazing sightings and for patiently answering my questions (Where are we? What direction were those elephants walking in? etc) for my data sheets. To Bobson, Bellamy and all the managers and camp staff thanks for making my stay in camp so enjoyable. To Hanneltjie and the kitchen staff much appreciation for the wonderful food. Extra special thanks to the choir for the wonderful harmonies and the dancing in their nightly after dinner singings that I loved so much.

Last but undoubtedly not least to Stella, Gemma, our tuskless female, Diana, DI05 (I wish she had a name – perhaps Rebecca?) and her calf and all the other Tuli elephants who I met during my time here I say “Dear Elephant Mma, Thank you for allowing me to share in your lives for this short time and for all the joy and pleasure that you have given me. It has been a privilege and an honor to know you all. I hope that one day you will all walk freely and safely through the corridors of a trans-frontier park.”

Finally, as I head for the Delta for four days rest and relaxation as a guest at one of my favorite camps, I say “Sala sentle” and hope to meet some of you again in the green of 2011.

For now farewell
Rebecca



Special Requests

Climate data

Climate data in any reserve is extremely important to establish trends. Within the NTGR rainfall is generally very patchy and this can have a huge effect on the distribution and movements of wildlife on the reserve. We are looking for reliable daily rainfall and temperature records from as many locations as possible. Anyone who would like to contribute can contact me at tuli.elephants@gmail.com. Data-sheets are also available.

Mortalities

I am trying to keep track of all the mortalities (natural or otherwise) of elephants within the region. This data is extremely important in understanding the population dynamics of the Tuli elephants and to ultimately assist in the management of these amazing creatures. Would anyone who has any historical data or come across any dead animal (of the specific species) please contact me.

Identification kits

Anyone who would like to participate in identifying or who has come to know a specific elephant well on their property assist me in sending identification photographs. For more information on how to go about this please contact me.

Newsletter Contributions

We would like to hear from you in our newsletter. Any contributions towards sightings on the reserve or interesting stories on elephants are welcome and would be appreciated.

Donations and Contributions

Research would not be a reality if we do not have the amazing support from so many organizations and individuals who obviously share our love for nature and the vision to conserve our magnificent heritage. Thank you to each and every person who has made a contribution, in whichever way, to the project! Anyone interested in donating towards the elephant research project can contact me at tuli.elephants@gmail.com for more in-



Mashatu



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Background to the CLRV Elephant Research Project

The project was initiated in August 1999 to determine the status of the Central Limpopo Valley elephant population and the impact the elephant population had on their natural habitat within the Tuli.

The broad objective of this study is to determine how various factors influence movements, occupancy rates in different parts of the home range, social dynamics and conception and survival of elephant groups in the Central Limpopo River Valley. In order to meet the objectives, data will be gathered through field observations of the vari-

ous herds within the study area, concentrating within the Northern Tuli Game Reserve. Satellite data on the movements of the various herds collared, weather data from various stations within the study area, vegetation data on the phenology of

various plant species as well as long term vegetation change in the Northern Tuli Game Reserve will be measured.



Studying elephants