

MASHATU 2008 GAME REPORT



Welcome to the end of yet another year in the Tuli. Here is a summary of the events that happened during the year on the reserve and especially in the research projects. We hope you enjoyed following the game sightings and keeping up to date with the activities of the animals we all love. A great thank you to all that contributed to the projects through either financial assistance or participating in the research drives. A big thank you to all the volunteers, that joined us over the year, for their contribution to the research projects. From everyone at Mashatu we wish you a prosperous 2009 and are looking forward to your next visit to Mashatu.



Weather and vegetation report

The year started with amazing rains and by the end of January looked better than it did in the entire 8 years I have been here. For most part the reserve received soft penetrating rain rather than deluge thunderstorms. By February the rivers have come down and during the early part of the month the Limpopo River was at times too high for the cable car and a motorboat had to be leased in a hurry to ferry guests and goods across the raging river. During March there was a bit of a lull in the rain but a big thunderstorm in April improved conditions once more. By June the Limpopo River was crossable. Pools of water could still be found in all the major rivers and even Nel's vlei still had water by midyear. By the end of July most of the trees including the Mopane trees have lost their leaves but unusual for this time of the year large pools of water could still be found in most of the rivers throughout the reserve.

By August the winds started picking up and several of the tree species came into flower including the stink shepherds tree and several of the Acacia trees. The sweet scents and bright yellow colours were a welcome change to the otherwise brown landscape. In October the Apple leaf trees flowered and the majority of the trees were back in full leaf. Just as the last of the pools of water disappeared in November the rains came and the majority of the rivers came down once more. During December there was a long lull in the rains and the new green grass shoots slowly turned brown again, but our Christmas gift was great rains and between Christmas and New Year the reserve received close to 150 mm of rain.

Average rainfall over the entire reserve for the season 97/98 was 448.24 mm. The highest rainfall areas were Mashatu Main Camp, Mashatu Tent Camp and Jwala. The lowest rainfall recorded was within the Charter Reserve with Shalimpo, Charter and Santhata all receiving less than 400mm of rain for the season.

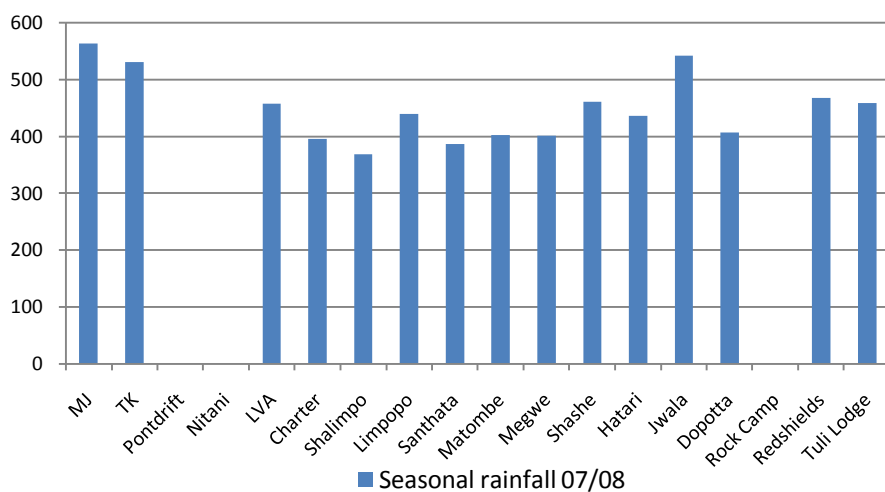


Figure 1: Seasonal rainfall comparison for stations within the reserve for the period 2007/2008.

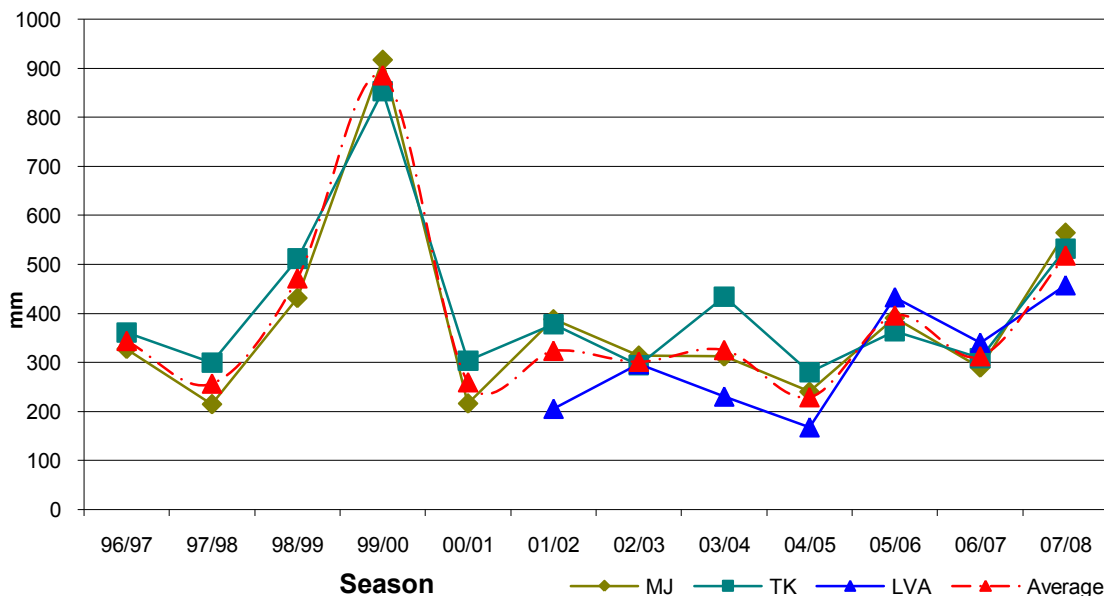


Figure 2: Seasonal rainfall comparison for the Mashatu Camps for the period 96/97 to 07/08

Table 1: Rainfall and temperature comparison for the Mashatu camps over the period 2008

	MJ				TK				LVA			
	Max	Min	Rainfall	Days	Max	Min	Rainfall	Days	Max	Min	Rainfall	Days
Jan	30.03	21.77	129.00	4	30.35	21.77	123.0	7	32.03	10.65	120.0	2
Feb	33.52	21.83	63.00	2	21.77	21.97	14.0	3	33.28	10.31	0.0	0
Mar	31.48	20.68	0.50	1	32.26	21.52	1.0	1	34.32	10.68	0.0	0
Apr	27.60	14.50	37.0	2	30.00	15.40	46.0	2	31.03	11.83	0.00	0
May	24.68	12.97	0.0	0	29.84	8.29	2.5	2	29.00	10.58	0.0	0
Jun	22.69	9.62	0.0	0	28.23	8.43	0.0	0	29.03	9.73	0.0	0
Jul	21.77	8.77	0.0	0	23.48	7.06	0.0	0	22.35	6.39	0.0	0
Aug	26.23	10.34	0.0	0	24.81	9.65	0.0	0	29.39	9.68	0.0	0
Sep	33.60	15.60	0.0	0	32.80	14.67	0.0	0	30.77	10.93	0.0	0
Oct	32.73	19.55	0.0	0	36.00	20.70	0.0	0	32.55	11.55	0.0	0
Nov	32.20	21.50	82.5	8	33.40	22.57	76.6	9	35.87	11.60	40.0	4
Dec	32.61	22.65	158.0	6	34.52	21.39	166.3	8	30.90	11.16	98.0	6
	29.10	16.65	470	23	29.79	16.12	429.4	32	30.88	10.42	258.0	12

Game Viewing for 2008

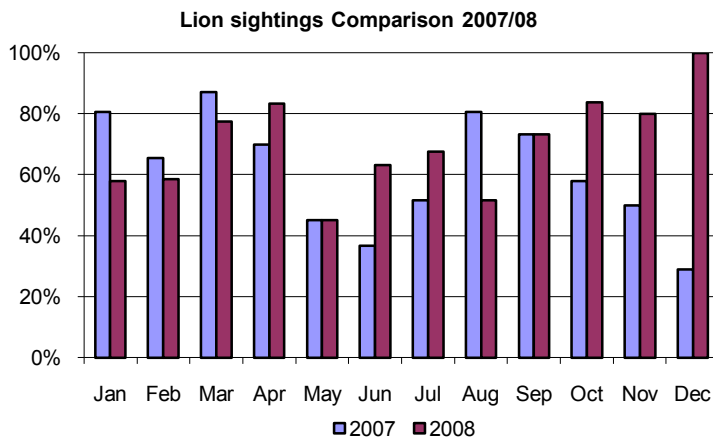
Overall the average viewing of all game species recorded were higher during 2008 compared to 2007. It is however not only the glamorous species that makes this area so special but the diversity of animals, habitats, birds and critters. Then there is also the amazing changes from the dry to the wet season making you feel like you arrived in a whole new world. During the year we had great sightings of wildebeests and zebras with the large breeding herd of eland now reaching close to 200 individuals often seen along the Limpopo River. Civets, porcupines, African wildcats and armadillo made up some of the special night sightings while the African Rock python always catches peoples interest.

Table 2: Percentage days seen per month by rangers for each species

2007													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave
Lion	81%	66%	87%	70%	45%	37%	52%	81%	73%	58%	50%	29%	61%
Leopard	81%	86%	87%	83%	52%	83%	94%	94%	83%	84%	77%	61%	80%
Cheetah	58%	41%	58%	23%	29%	47%	58%	48%	17%	26%	33%	3%	37%
Elephant	94%	90%	94%	97%	94%	100%	100%	100%	93%	100%	93%	94%	96%
Hyena	48%	72%	81%	80%	68%	63%	74%	77%	77%	74%	67%	58%	70%
2008													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave
Lion	58%	59%	77%	83%	45%	63%	68%	52%	73%	84%	80%	100%	70%
Leopard	55%	72%	81%	73%	52%	53%	71%	81%	83%	94%	67%	68%	71%
Cheetah	6%	17%	13%	20%	3%	23%	48%	39%	30%	19%	3%	0%	19%
Elephant	100%	100%	100%	97%	90%	97%	90%	100%	97%	100%	93%	100%	97%
Hyena	81%	83%	87%	73%	48%	53%	65%	71%	77%	71%	57%	61%	69%
Wild Dog				17%	6%	10%	16%	55%	63%	16%	23%	19%	25%

Lions

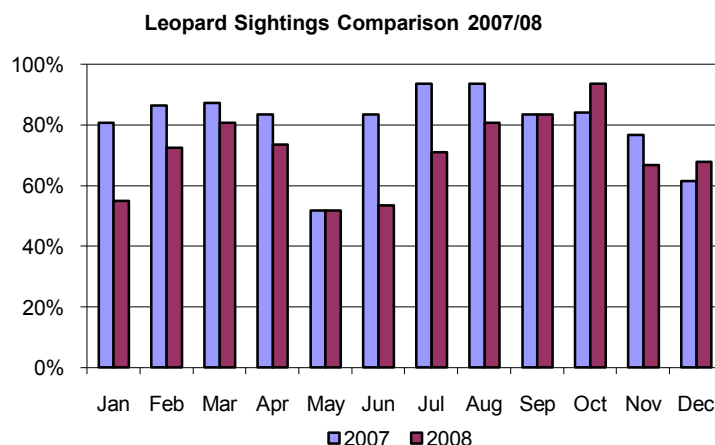
2008 must have been one of the most interesting years regarding lion sightings. Early January we noticed that the Majale Island female with her 4 cubs moved out of Mashatu and they were not seen until a few months later – on Mapungubwe National Park (South Africa). The reason for the female to take her offspring out of the area they have occupied for the last few years became apparent when 6 new lions, now called The New Pride, moved into the same area - two of which are young adult males. The new lions wandered all across the central and eastern parts of the reserve slowly establishing their new territory. Not long after they settled down did the males mate with three of the females and in November the first litters of cubs were born. The New Pride is making plenty of substantial kills and eland seems to be the preferred prey species. Interesting enough, since these 6 lions moved into the area there has been much more sightings of large raptors such as vultures. It's been a while since there has been a 'normal' lion pride structure in Mashatu, supposed to single lions or lions living in small groups. The fact that these lions are making larger kills means that there are more scavengers around such as vultures – larger prey species are killed leaving larger carcasses available for scavenging raptors. This is a good example of lions being a 'keystone' species in an ecosystem. A keystone species, such as lions, can be described as a single species that makes a significant impact on other species communities, but constitute only a low proportion of the community biomass. This is also evident in Yellowstone National Park (USA) where the introduction of wolves increased the diversity of avian fauna. Hopefully the New Pride will stay and successfully raise their cubs to adulthood increasing not only the lion density of the Northern Tuli Game Reserve but also the diversity of genetic material.



Leopards



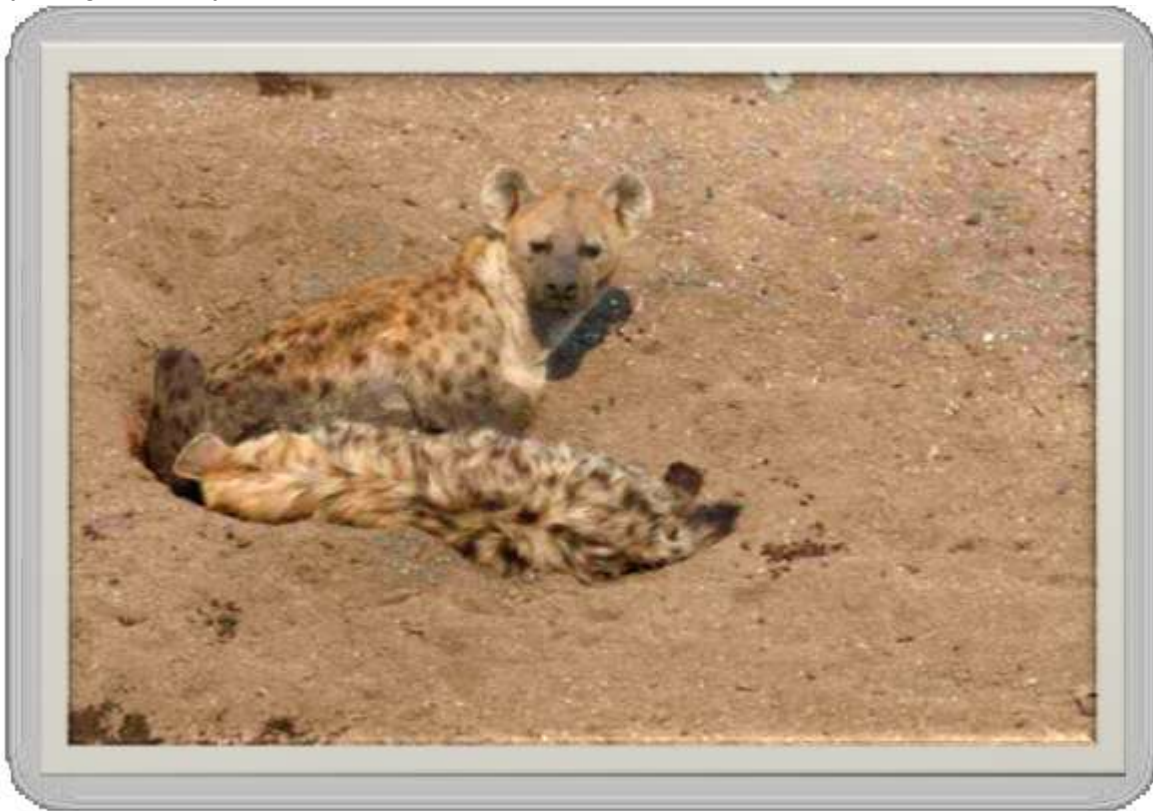
When it comes to leopard sightings all I can say is that it has been yet another terrific year. Leopards were seen all across Mashatu in all the various habitats it has to offer. Over the year two females were observed with their offspring and it was amazing to witness how the little youngsters grew up and became independent. Other leopards, especially young males which were seen very frequently, ‘escaped’ the ever watching eyes of rangers and guests - for they became of age where they had to move out of their natal areas and find their own territories. Some were never seen again while others moved into the central area and where they came from is a mystery.



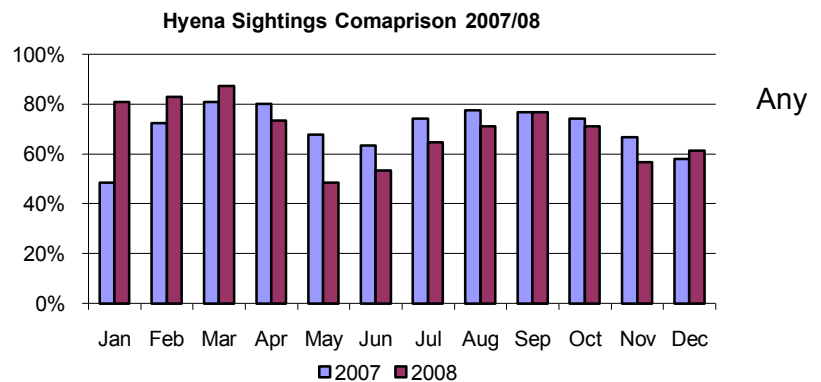
Spotted and Brown Hyaenas

Brown hyena has been seen more often this year than last year, but sightings were still far and few between. Interesting enough, in areas where there is a low spotted hyena density, such as Mapungubwe National Park (South Africa) and the Venetia Limpopo Nature Reserve (South Africa),

both just across the border from Mashatu, there are very high densities of Brown hyenas compared to the Northern Tuli Game Reserve. Luckily there are still brown hyenas around, but it must be kept in mind that the larger and more social living spotted hyenas do out-compete the smaller sized, solitary living brown hyena.



What can be said about one of the most successful predators of Mashatu – the spotted hyena? Apart from hearing these unmistakable whooping calls at night, or seeing the bright white droppings next to roads, there have been awesome sightings of these magnificent large predators. Spotted hyenas are probably one of the most misunderstood and wrongly accused predators in Africa. They are almost always portrayed as the ‘villain’ in nature documentaries regarding lions, leopards and many other species. Although they are notorious scavengers, spotted hyenas are also very successful hunters and truly amazing animals. There have been a few den sites over the year, but often they will move their den site due to various factors. These animals always bring something new to the guests’ experience in Africa. Normally their size is the talking point, since very few people often see these animals up close. predator that can stand up to lions (although in more numbers normally) and face the dangers that humans bring and still be able to secure their survival are worthy of some respect!

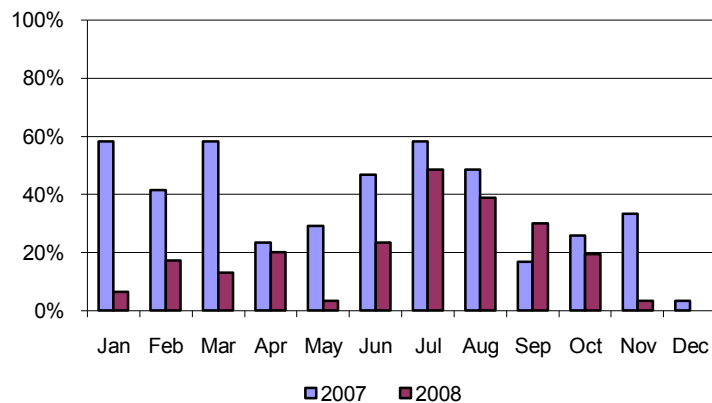


Cheetahs

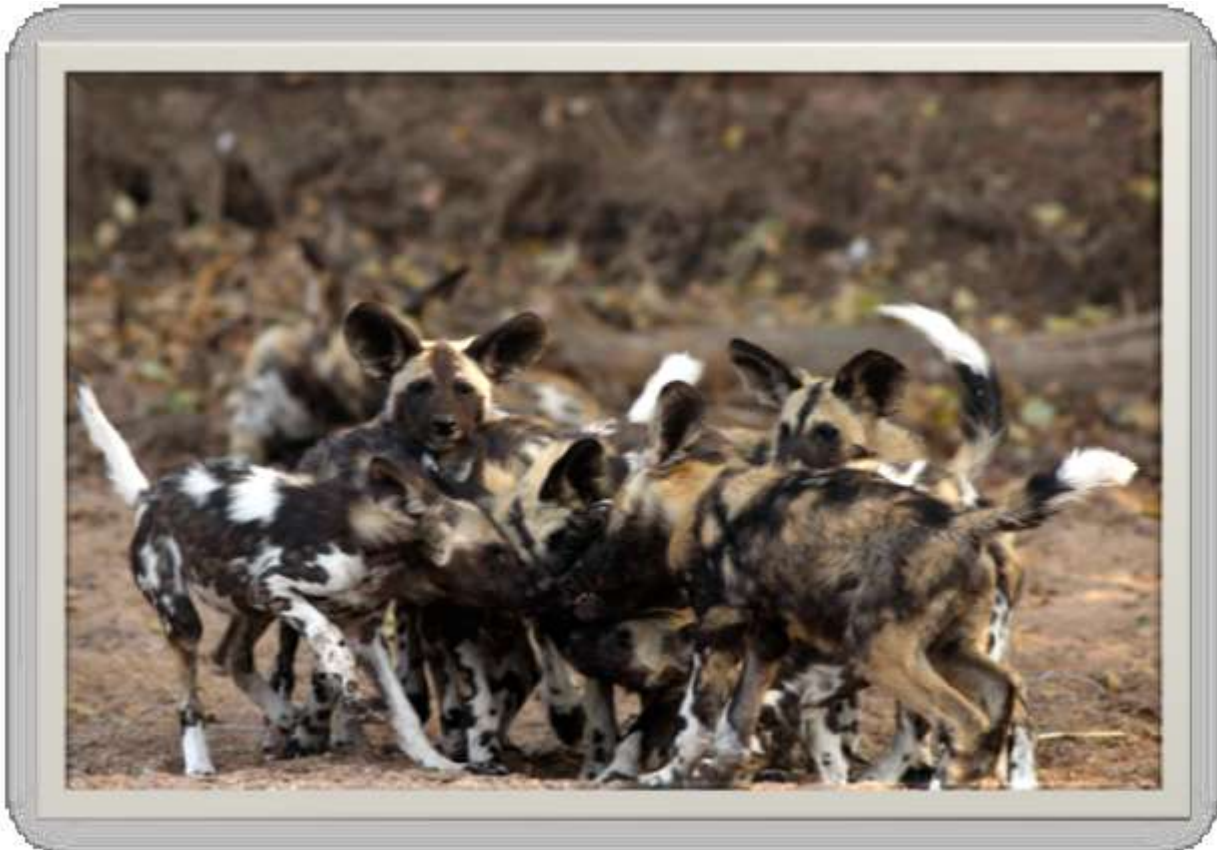


The year has been filled with awesome cheetah sightings. Some where they were merely resting in the shade of a Sheppard's tree, but also the classic hunting scenes where they bring down impala after a good chase! A mother and her 3 cubs were seen frequently around Pole Hill and the Vlei. Other regular sightings were that of two males, and that of a single female. Because cheetahs tend to live in large territories it is difficult to accurately describe where they are from and where exactly they fit in. It is well known that cheetahs are out competed by larger carnivores such as lions and spotted hyenas. This is one of the reasons why cheetahs, and African wild dogs, have to roam over larger areas in search of prey, but also to avoid their larger competitors. Since there is a high spotted hyena density and recently lions living in the area where cheetah has been seen frequently, it's not uncommon to see them move out of the area only to return weeks later.

Cheetah sightings Comparison 2007/08

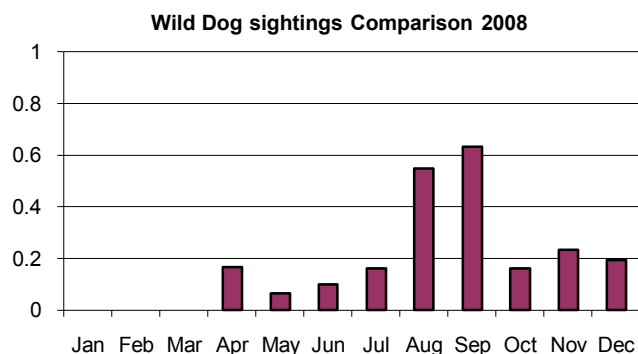


Wild Dogs



The wild dogs were seen, on average, every four days during 2008. The pack often moved west of Mashatu and spent quite some time in this area of the Northern Tuli Game Reserve. This explains the low sighting rate during May and June. At the end of June, the alpha female selected a den near the Limpopo River. For the first month we kept all game drive vehicles away from the den to ensure the pack was not disturbed in any way. The dogs were, however, seen whilst out hunting during this period. After opening up the den to viewing, guests were treated to great sightings of the pups. It was incredible to see just how fast they grew! At the end of September the pups were old enough to leave the den, and the pack once again started moving all over the reserve.

Besides the good sightings at the den, guests were treated to several kills, including warthog, impala, eland, and kudu. Other notable occasions included the wild dogs chasing a cheetah up a tree and taking down five impala in an afternoon! In October the pack came across a single hyena and harassed her for more than ten minutes. She repeatedly attempted to take cover under small trees but the dogs had strength in numbers and gave her a severe beating! Twice she actually took cover underneath the vehicles! Eventually she was left bleeding but not too seriously hurt. The dogs also isolated a group of banded mongoose in the dry Limpopo Riverbed and the little creatures promptly piled up into a bundle and were able to snap way at the inquisitive dogs. Not a single mongoose was seriously injured or killed.

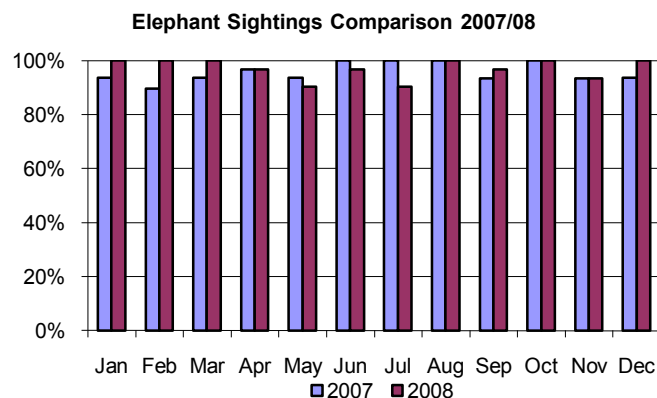


If all goes well, the dogs will probably select a den toward the end of May 2009. Since they often return to a similar area if they managed to successfully raise the pups the previous year, there is a very good chance that this will be on Mashatu property again this year. This will once again provide great sightings and make for some great photography.

Elephants



Yet another great year for elephants with elephants viewed nearly every day of the year. This has been one of the more successful herbivores on the reserve with numbers fluctuating according to season and resource availability in the reserve between as low as 200 to as high as 900 individuals.



Herd sizes and the number of herds seen per day also varied based on season, but it was seldom that no elephants were observed on the reserve. During January several rangers were lucky enough to observe an adult female in herd HE give birth right in front of their vehicles. A sighting very seldom seen by anyone! During the wet season rangers reported herds as large as 250-300

elephants, while during the peak of the dry season the herd sizes dropped to as low as 4-10 individuals in a group.

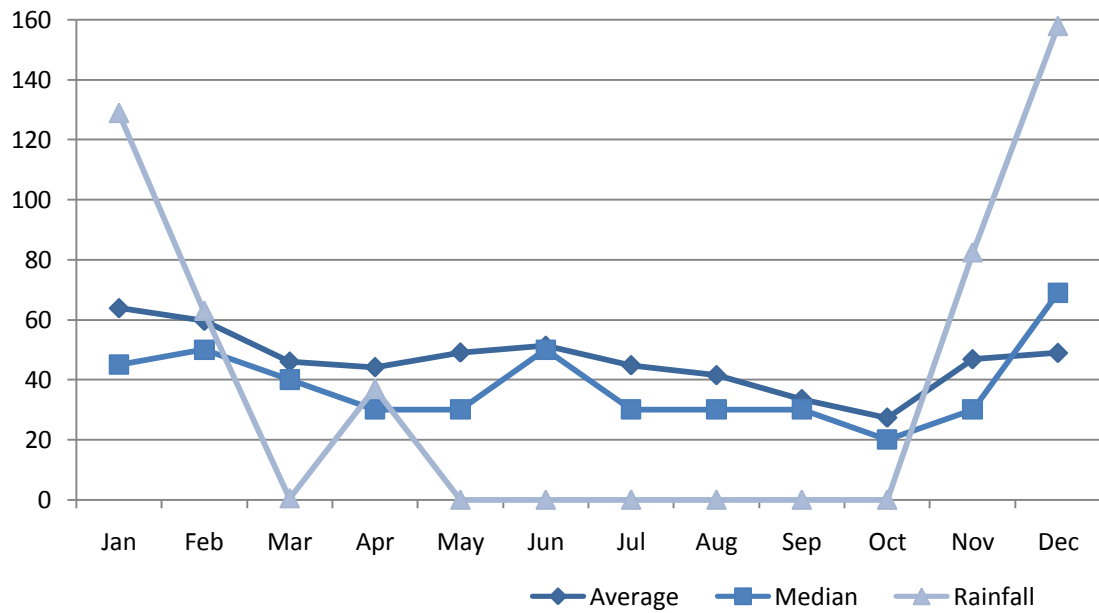


Figure 1: Herd size and rainfall comparison for the period January to December 2008

The herd sizes as recorded by the rangers fluctuate largely with the monthly rainfall in the area. The smallest average group size (27) was recorded by the rangers in October after a period of approximately 6 months of no rain.

Birding



During the year we kept record of all kori bustard, vulture and ground hornbill sightings. We were particular interested in vulture nesting sites on the reserve. Dopotta reported a sighting of a tagged vulture on their property feeding on a zebra carcass in August. The information was passed on to Andre Botha, manager of the Bird's of Prey Working Group at EWT. The bird observed is one of Kerri Wolter's birds that were tagged at the Rhino & Lion Nature Reserve in Gauteng in late November 2007. This is the first re-sighting of one of the Cape vultures tagged at R&L. Only 5 were wild caught and tagged, all first year birds.

During one morning drive in August two tawny eagles were spotted hunting a lone guinea fowl. We watched in awe as the eagles worked together chasing the bird from under a shrubby bush and eventually succeeding in killing the guinea fowl. Another interesting sighting was that of an albino plover near Hamerkop Crossing along the Majale River.



Acknowledgements

A big thank you to everyone that contributed to the game viewing records throughout the year. A big thank you to Dan Streck for all the magnificent photographs in the report.