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## August 2008 NEWSLETTER

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## 1. Message from the Chief Operating Officer

Summer is returning to the savannahs of Southern Africa sending daytime temperatures soaring. As the grass dies away and the cover available to the lions recedes it becomes increasingly difficult for the young lions to approach their prey unnoticed. This does not seem to be hindering our most recent addition to stage one however. Soriah is displaying superb stalking techniques for a 10 month old cub; regularly getting herself right into the zebra herds she often encounters on her walks.

We are in the final stages of preparing for the long-awaited expansion into Zambia; enclosures are being built, quarantine and veterinary checks are being finalised and permits for movement are being signed off. It is a long and frustrating process, but we refuse to resort to anything other than the full legal process to get the job done.

The staff at Antelope Park were very sad to see the departure of Ben Deary this month who is returning to the UK to continue his studies. Ben has been operating our African Impact voluntourist project two years and done so much to help us advance the program, not least of which is raising the two brothers of Echo & Etosha. Ben will be much missed, but no-one here expects it will be long before he rejoins the program.

As ever, ALERT greatly appreciates all the assistance that we receive; through words of support, financial backing and through the time given to ensure that the programs are always moving forward; to help us achieve our aim of conserving a wild Africa for future generations.

Kindest regards  
**David Youldon**  
ALERT Chief Operating Officer



## 2. What is ALERT?



The **African Lion & Environmental Research Trust (ALERT)** is a non-profit organization working with governments, wildlife authorities and private organizations to identify suitable release sites for African lions. ALERT will also provide infrastructure to those sites to facilitate the release and to protect local communities. It was founded in 2005 to support the work of the four-stage African Encounter Lion Rehabilitation and Release into the Wild Program, founded in 1999 at Antelope Park in Gweru, Zimbabwe.

ALERT also carries out research through the **Conservation Centre for Wild Africa (CCWA)**, either in its own right or in conjunction with external organizations and educational institutions. CCWA engages in a diversity of research and programs, not just for lions but on a range of African wildlife to ensure we pass on balanced ecosystems to future generations. CCWA is already undertaking a number of research activities throughout Zimbabwe's National Park system.

In addition, the **ALERT Communities Trust (ACT)** is a means to give back to communities bordering conservation areas such that they receive tangible benefits for supporting those conservation programs. A primary element of this is our community education and awareness program to further understanding of the importance of sound conservation practices. Local communities are involved in eco-tourism ventures related to the conservation programs, and money generated by those programs goes back into development schemes, agreed as priorities with the local community, such as building schools or providing medical supplies.



## Stage one update

Last month Antelope Park welcomed three new cubs to its stage one program: **Batoka** and **Bhubesi**, and also **Soriah** who was grouped with **Sahara** from the **3Ss**.

While Sahara was busy making friends with her new walking companion her brother and sister, **Sango** and **Swahili**, were to take the place of the retiring **2Ls** of **Lina** and **Lungile**, who had been walking at our Victoria Falls stage one site since last July. So on Monday 4<sup>th</sup> August, Sango and Swahili were loaded into crates and taken to our stage one site within the Zambezi National Park. Once they arrived, the cubs instantly made themselves at home in their new enclosure and have impressed everyone with how quickly they have adjusted to the change in their surroundings.



Two days later, Lina and Lungile returned to Antelope Park and were placed in the hunting enclosures in preparation for Night Encounters having last month made their first kill: a sub-adult buffalo.

After an initial period of settling in, Lina and Lungile were joined with **Luangwa** and **Msasa** on the 16<sup>th</sup> of August. A few days later **Lozi** and **Mana** joined the group, quickly followed by **Lisha** and **Masai**. At the end of the month Lozi, Luangwa and Lungile were taken out during the day together for the first time since they were young cubs. Despite not finding much game to hunt, the boys were very playful together, a good indication that they had bonded well over the past days.



*Above, from top: the Ss are lured to the crates with meat; Sango with Lions' Manager Cara Watts who travelled with the cubs to help them settle in; Lina and Lungile arrive back at Antelope Park and; Luangwa, Lungile & Lozi go on their first walk together*

Later that same day Mana, Msasa, Lisha and Lina were split off from the males and moved to a neighbouring enclosure to be regrouped with 25-month old sisters Acacia and Amghela, and 24-month old Nandi. Together, they form a future release pride, except for Lisha who is likely to be kept back for breeding. Even though the older three girls having more experience on Night Encounters, between them, the 21-month old Ms and 20-month old Ls made several successful kills while still walking: including mongoose, warthog, buffalo and a crab. With so much hunting form at such a young age to their credit, these new additions to the Night Encounter program have a great deal of potential - and are sure to keep the game of Antelope Park looking over their shoulder!

## The 2Bs take a hike



Five-and-a-half month old **Batoka** and **Buhbesi** arrived at Antelope Park last month, and spent their first weeks settling in at the Park and getting used to all the attention that they were suddenly receiving.

Then on the 19<sup>th</sup> August, the young cubs took their ever first walk out into the Park. Tentative at first, they looked a bit overwhelmed, but very quickly began to relish their outings through the Bush and followed the guides, voluntourists and handlers who accompanied them.

For cubs who had received little human contact prior to their arrival at AP their progress has been remarkable, and with every walk increasing their confidence levels all the signs suggest they are fitting into stage one as if they had been here their entire lives.



## Matusadona National Park

ALERT's Conservation Centre for Wild Africa (CCWA) recently sent two representatives, Antelope Park Project Manager Ben Deary and his younger sister, Rebecca, who is currently a voluntourist at Antelope Park, to join a wildlife monitoring expedition in Zimbabwe's Matusadona National Park.

The expedition was run by the Zambezi Society, an organisation working to protect Zambezi Basin ecosystems and wilderness. Self-funded volunteers form teams to hike through the park and catalogue permanent water points using a GPS (Global Positioning System), and also to look for signs of the endangered black rhino, of which there are a small number in the park.

Ben and Rebecca were joined by three other volunteers from Harare and two Zimbabwe Parks and Wildlife rangers to hike the 55 kilometres through the mountains of the park. The expedition lasted for five days and took the team through some rugged terrain, with the group carrying all their food, clothes and camping equipment along the way.

Numerous water points were found and catalogued along with sightings of elephants, hyenas and a honey badger en-route - but unfortunately there was no sign of the black rhino. At the end of the trip all the data collected was sent back to Harare for analysis by the Zambezi Society in order to determine areas of the park with good water supplies and also any possible black rhino territories. This information will be used to coordinate anti-poaching patrols, as poaching in the park is a major problem.

Despite the lack of an appearance from the rhino, the expedition was a great success and is the first of many that ALERT has planned as we look to broaden our role in wildlife conservation through CCWA.

To learn more about the work of the Zambezi Society you can visit their website at [www.zamsoc.org](http://www.zamsoc.org)





## Facilitated Research Program

August has seen ALERT host its third facilitated research study. The program was founded with the intention of opening its programs to independent evaluation by BSc, MSc and PhD students reading Animal Behaviour, Biological Conservation, Animal Welfare or similar program.

Lisa Clifforde joined the voluntourist program at Antelope Park last year and is now a part-time student at Exeter University. “I had just completed a BSc in Animal Behaviour and Welfare when I first came to Antelope Park, and was looking for something that combined carnivores and personality for my MSc. I couldn’t find anything to fit my requirements in the UK, but the Lion Rehabilitation and Release into the Wild Program provided the ideal basis for a unique study.”



Lisa arrived back at AP at the start of August to complete the first stage of her study looking at character development in lions. ALERT began this process last year with the character data walks, the results from which you can read more about on the following pages of this newsletter.

It is our belief that each lioness within a pride will excel at one of three different roles within the pride; mother, hunter or alpha females. Lisa hopes to ascertain which lions in stage one will fit into these roles at the youngest possible age by identifying behavioural traits and linking them to lion character.

Lion behaviour falls into six categories – sociability, aggressiveness, open or closed behaviour, activity, boldness and dominance. Using this as a starting point, Lisa designed her own methodology for assessing the occurrence of these traits in each lion. A combination of ratings on these traits and behavioural observations will be employed to complete this initial phase. The trait ratings will be carried out by people who know the individual lion well and are able to rate all aspects of that lion’s behaviour, for example, how social, aggressive or independent they are. Lisa will then compare these ratings to behavioural observations looking at the same aspects of behaviour.

The next step will be to look for patterns within each behavioural trait; such as are the more aggressive lions also the boldest? These results will then be compared to the role that each lion takes within a release pride, taking place when they have graduated to stages two.

Once Lisa can accurately predict which behaviours characterise a lion’s “personality”, the next phase of her study will look at the age at which behavioural traits become consistent in cubs.

Overall, the study aims to assist in identifying which cubs can be grouped together with the best chance of forming a balanced release pride at the earliest opportunity, allowing for a greater chance of social cohesion and stability post-release.

Lisa has six years to complete her study and the cubs she is looking at in stage one now will not be eligible for release for a few years yet so the final results are long way off. But through opening up the program for analysis in such a manner, ALERT hopes to be able to provide students with a diverse platform for study and give the program’s lions the best possible chance of success after release.

If you are interested in taking part in ALERT’s facilitated research program, please email [alert@africanencounter.org](mailto:alert@africanencounter.org) for more details.





## Character walk results

The character series on the walking cubs at Antelope Park has been in place since December 2007, and has looked at members from seven litters of cubs at various ages so far. However, July was the first time we had the opportunity to study characteristics displayed by nine-month old females, courtesy of Sahara and Swahili.

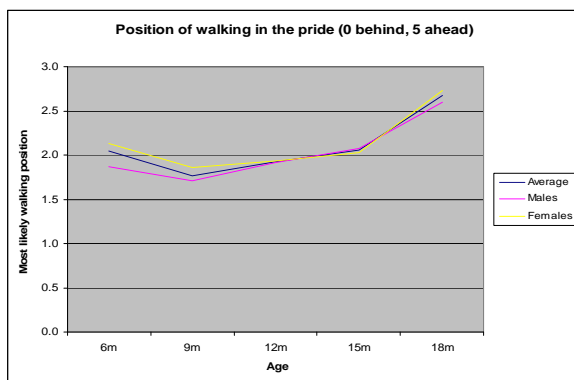
At three-month intervals five separate hour-long studies are performed while the cubs are out on their daily walks. Lion prides are made up of different characters and a variety must be present to form a functioning pride. Conversely, certain characters must not appear too frequently, as this can lead to divisions. As such, the study looks at each of these elements forming a basis from which to gauge the characters of our walking lions. At present, the studies that have been conducted are insufficient to make any solid deductions, however some interesting patterns are beginning to emerge in the results.

### Leadership:

As mentioned in the previous article, female roles tend to fall into mothers, hunters and alpha females; those that decide when the pride moves, rests and hunts. Therefore, data is collected to see which cub in each group leads most often, and how often their leadership is accepted by the other lions.

Figure 1 shows that females tend to walk at the front of the pride more frequently than the males from the age of six months, and at nine months the same trend is observed. Once the cubs undergo their third and fourth series of data walks the males take the leading position. However, by the 18 month mark the females are again at the front.

**Figure 1**



While females display more leadership instincts, do others respond to their initiatives? In the early stages the answer is no; in fact from the ages of nine to 15 months males are more often followed. But again, at 18 months not only do females take the lead, they are followed with a greater frequency.

An example of the power a leader holds over a pride is Sahara from the 3Ss. At six and nine months she was the group's leader: so much so that if she did not move nor would Swahili or Sango. But having been regrouped, will Sahara still be a leader when her next round of walks take place in October?

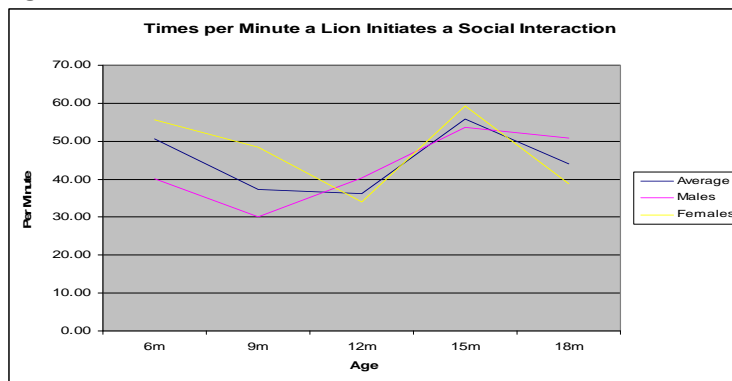
### Endurance:

Each walk rates how well the cub keeps up with the pride; do they keep up throughout, lag behind or are they unwilling to keep up at all? Again given their tendency to lead, the females fare best at this test while the males lag more frequently. Interestingly, at nine-months both males and females take a sharp dip, with both dropping to their lowest recorded points. While little can be deduced at this point, it may prove to be a time when characters are developing, and this emerging independence manifests itself in the refusal to blindly follow.

### Playfulness & sociability:

You don't need a study to tell you that cubs love to play. But who initiates play and with who can tell us various social aspects of a cub's character. At six months old, when the data trials begin, it is the males who display the greater tendency towards initiating playful interactions, but only just. In the point between six and nine months, the females more or less retain the same level of initiation they had at six months, while the males drop off dramatically. By a year old, play has subsided significantly in both males and females as hunting begins to take a more central role in the cubs' focus. By 18 months, play is still a factor but has tailed off considerably.

**Figure 2**



A similar trend can be seen in social interactions initiated, with again the females taking the lead in this area between six and 12 months. At one year, males and females are almost tied in the number of interactions initiated, with the genders staying on a much more even keel over the 15 and 18 month marks, as shown in figure 2.

### Challenging:



Finding your place in a pride is what being a lion is about: you're either dominant or not and challenging other pride members asserts this authority. Challenging behaviour can turn into an aggressive encounter, so the provocateur must be confident in their challenge. For this sort of behaviour, we look for cubs stalking each other or giving a 'naughty' look. Perhaps in a preview to later life, the males are more dominant in this aspect. Nevertheless, females overtake the boys on a couple of occasions, at nine- and 18-months old. As the data trials stop at 18 months, methods for extending these assessments past walking age will need to be implemented to see when or if the males regain the upper hand.

### Testing:

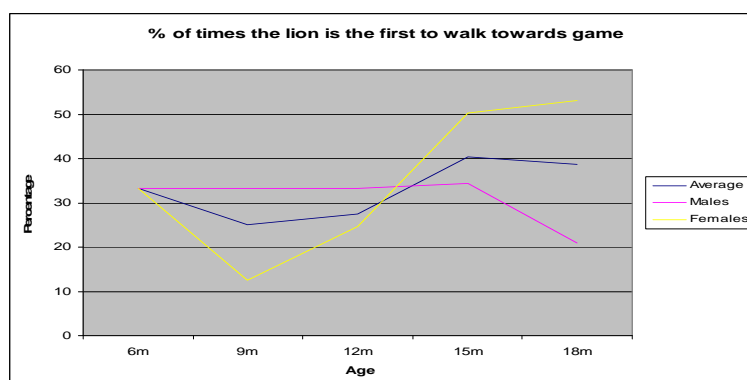
Not to be confused with challenging, which is a show of your own dominance, testing is a trial of another's. Everyone has their weak spots, and this includes lions. The back of the thigh and around the throat are particularly aggravating for lions, and what better way to see how dominant others are than by giving them a quick nip on the back of the thigh? The number of times a focus lion ankle taps or bites another is recorded over the hour study period. The males start off as the most testing, but from then on it's all about the girls – perhaps constantly testing one another to find out who is the alpha female.

### Tolerance:

Just like us, lions can be intolerant and not all social behaviours initiated by one lion will be accepted by the other. And it's the males who show greater intolerance to being approached more often than females. At six, 12, 15 and 18 months the boys are more likely to either move away from an approaching lion or show aggression to the initiator, whereas the females are more likely to accept an approach. The females do show a higher level of intolerance at nine months, but with only the Ss so far for comparison, this is by no means conclusive.

### Hunting & aggression:

**Figure 3**



Data on boldness towards game and aggression towards other pride members when feeding is also recorded during the study period. Males are shown to maintain an equal level of boldness towards game from six to 15 months, before dropping off. The females are slow to start, dropping well below males by nine-months old, but from a year old there's a rapid increase in their interest and confidence, seeing them dramatically overtake the males by 18 months, as seen in figure 3.

Reflected in the aggressive aspect, the data collected on feeds clearly shows that males are more aggressive when approached during feeding. From six to 18 months the results show that males are considerably more aggressive than females.

### Conclusions so far:

Still in its infancy, this study's results can only tell us so much at this point. However, on an individual basis, roles seem to begin to develop fairly early on at around nine to 12 months. Certainly, some level of exploration of a cub's own position and others within its social unit are constantly being investigated, tested and re-established. At what age these roles become defined will take some time to accurately predict.

We can also see that female cubs are more often the most willing to explore these roles from the start. Perhaps with more roles to fill within a pride more investigation has to be done to understand where your place is within it.

No two sets of cubs are ever the same and no two cubs will ever follow the exact same path. But investigating the indicators that can reveal greater understanding of lion sociability will work towards the success of all stages of the program.

### Other ongoing studies:

**Spoor:** Measurements are taken for all walking cubs on the anniversary of their birthday every month. In July, the spoor of the 3Ss, Lozi and Luangwa were recorded, however in August only Sahara's was noted as the 2L boys had retired from walking, and Sango and Swahili had moved to the Falls where this data program is not currently operational. Over the two months, Sahara's measurements did not change notably, but over time we hope to be able to use this study's baseline data to conduct population counts and age estimates on unseen wild lions.

**Noses:** The colouration of a lion's nose has been suggested as way of determining its age and is believed to darken over time. Many trophy hunters use this method, so that they only shoot lions over a certain age. But is it a reliable and logical method to manage wild lion populations by? Every lion and cub in stage one will help to prove or disprove the theory, with a close-up shot of the nose taken annually. Most recently, Acacia, Amghela and Amandla turned two, while Zuva celebrated her fifth birthday with a sniff at the camera.

**Manes:** Twelve points of mane growth of all the males in the program are measured every month; the length, colour and thickness of each point are rated. We also record data on a number of other factors such as climatic condition, body condition and social grouping to gauge if external conditions effect the mane's development.

**Activity budget:** Currently being trialled on the walking cubs, hunting and breeding lions, the activity study aims to see how the lions use their time both in and out of the enclosures. We hope to prove that the behavioural enrichment the program's lions receive increases their awareness and activity levels compared to other captive lions even after being retired from walking.

**Hunting development:** Behavioural enrichment plays a vital role in honing the hunting skills of stage one's lions. One of the ways of enriching their behaviour is taking the cubs out into the Bush and introducing them to their natural surroundings from a young age in preparation for the second stage of the program where they will need to be competent enough at hunting to feed themselves. We are looking at the age at which these instincts develop and how they progress, for example at what age does each cub first take an interest in game, move towards it, stalk, chase and attempt to bring prey down?







## 6. The Last Roar

### MissionFish

There are two ways you can contribute to the Rehabilitation and Release Program through the online auction site **eBay** – by selling or buying items auctioned in support of ALERT.

Many of our supporters are selling items and donating part of their profits to contribute towards the program.

Amongst other things you can find wildlife T-shirts, jewellery, make-up and even bridal corsets being auctioned with a percentage of the proceeds going to ALERT.

**MissionFish** is the charity arm of **eBay** and allows anyone to support their favourite charity.

All you have to do when posting an item for sale on **eBay** is go to the option for donating part of the sale to charity. Simply search for African Lion & Environmental Research Trust and the rest is automatic, with **MissionFish** making all the transactions for you to ensure the Trust receives a percentage of the sale, which you decide.

To join the growing number of ALERT fundraisers visit [www.ebay.co.uk](http://www.ebay.co.uk) to start buying and selling!