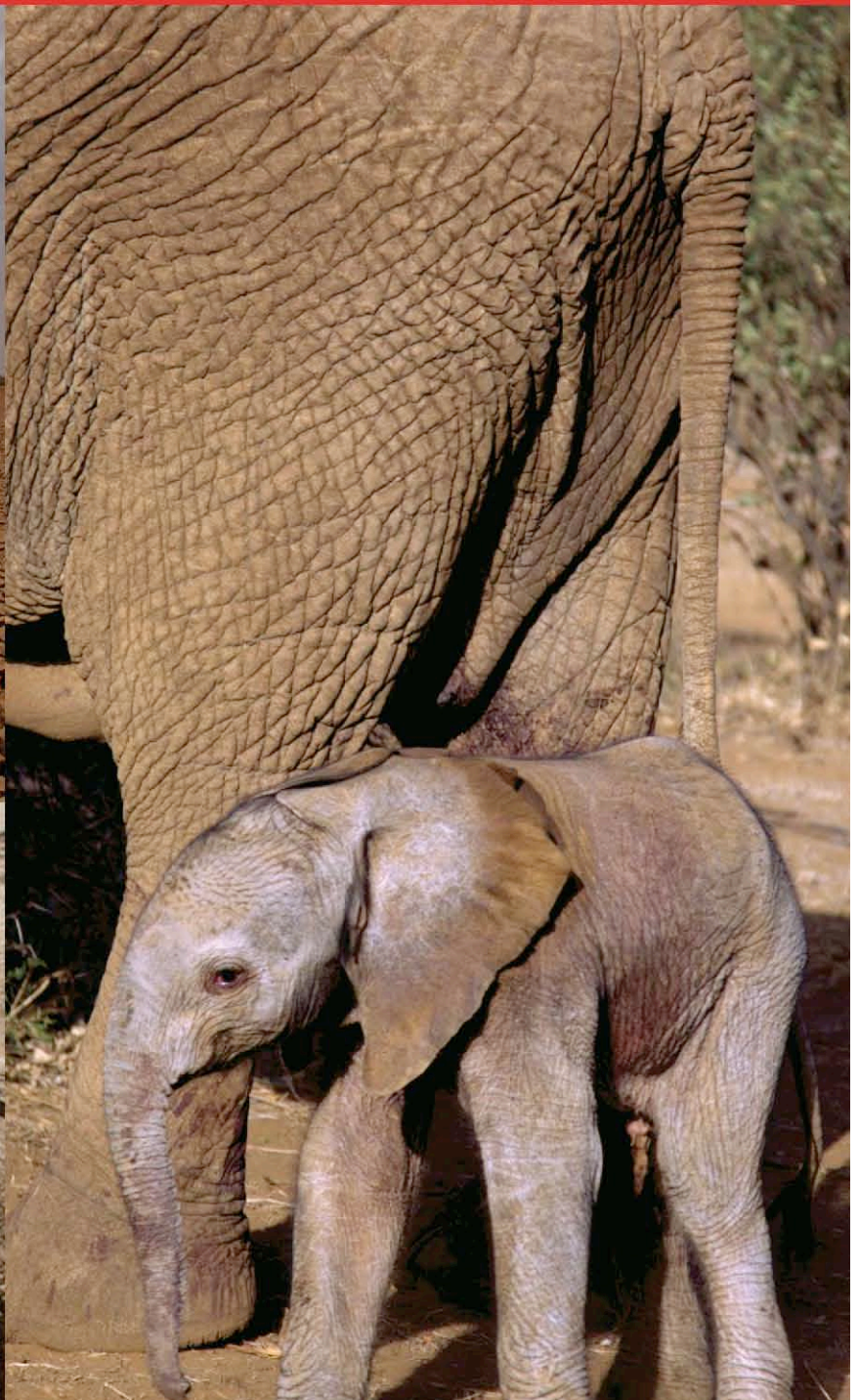




## ANNUAL REPORT 2008 - 2009





# Letter from the Founder - Dr Iain Douglas-Hamilton



Photo credit: Micheal Nichols / National Geographic

Three issues have particularly raised their heads in the last year, poaching, drought, and food insecurity. We have long feared a resurgence of elephants killed for ivory, and it is now happening in Central and East Africa. Fortunately, in Kenya we have a better early warning system than before, but the red lights are blinking. Specifically the proportion of illegally killed elephants within the sample of dead has been rising. Parallel work by colleagues shows a rising ivory price and an alarming Chinese connection.

In the meanwhile the continuous drought bites home. In Mali elephants were in critical condition, when in May 2009 we built an emergency tank. No sooner had the rains arrived in Mali bringing relief, than the situation worsened in Kenya, when in Samburu and Buffalo Springs the long awaited April rains failed totally. The situation has now been made much worse by the invasion of the protected areas by countless livestock illegally grazing in the reserves. Hardly a blade of grass remains and vulnerable species like waterbuck, buffaloes and warthog are dying. With elephants it is the young and the old that are vulnerable and we have recorded the passing away of much beloved matriarchs like

Navajo, Mohican, Rosemary and many calves have died too. From the idyllic BBC depiction of the *Secret Life of Elephants*, mainly shot in 2007 and released on UK TV in January we have seen a translation to *annus horribilis* of 2009. With people living hand to mouth and children going hungry, we are helping distribute food in partnership with Elephant Watch through the West Gate School, where some children had to stay behind during the holidays in order to be fed.

On a more cheerful note, our education programme is thriving with many children getting a break in life through our scholarships and the special project with the West Gate School has seen big improvements in the year. Throughout last year our trustee Euan Macdonald has been teaching as a volunteer teacher and became deeply involved in understanding the problems of making one little school work in the elephants range. We have also built a new girls dormitory, a kitchen and installed much needed water tanks, and the school is now thriving with the additional support.

Within STE itself there have been numerous opportunities for training abroad, or participating in conferences. Shivani Bhalla won an award from the Society of Conservation Biology, presented to her in Beijing. All these projects, and events are reported here in the words of our staff and collaborators.

On the wider scene we are deeply involved in CITES issues. We are working with our partners Kenya Wildlife Service to monitor and respond to the poaching situation. Our MIKE project has been selected as a special case study to be highlighted at the next Conference of the CITES parties to be held in Doha in March 2010. The efficiency of our participatory elephant carcass detection system is such that out of all the elephant carcasses detected by the 50 odd nation states monitoring elephants, one fifth came from the Laikipia Samburu site. This is not because poaching is worse there, but because our system worked better by simply asking local people "where are the dead elephants", and they told us.

The new Chinese demand for raw materials including ivory is a problem. The only solution is eventually to convert Chinese thinking to a less rapacious mode. After all in the Victorian era European powers plundered natural resources of the world as if there was no limit. The solution is to convert to an awareness that Nature's resources can run out and must be safeguarded.

In South Africa, where happily neither drought nor poaching prevailed, our Transboundary Elephant Project is working well in close liaison with the Kruger national park scientists. We have deployed collars in three parts of this huge international elephant ecosystem with an emphasis on understanding elephant ranging patterns and the complexity of conserving biodiversity. Our scientists have already contributed to science based planning and management.

Our scientific projects include extensive collaborations, and have all borne fruit in a record number of peer reviewed publications this last year. Highlights range from bee hive fences and how elephant communicate about bees, to an analysis of isotopes in tail hairs that reveal feeding cycles, to a re-evaluation of how elephants respond to population traumas by incorporating non-related animals into "family units".

The research findings are fed into the policy making and planning process. Many solutions to the diverse problems lie in better land use planning. We have been deeply involved with our partners the Kenya Wildlife Service, and with the county councils in drawing up strategic and management plans in which our research data gathered over the last decade is a vital element.

In this crisis year we are more than ever grateful to our sponsors who have responded to the elephants needs. There are still tough times ahead, but elephants are adaptable survivors, hope is in the air, and with any luck the rains are on their way.

Iain Douglas-Hamilton

21st September, 2009

# Letter from the Chairman –Professor Fritz Vollrath



I am writing this in Tanda Tula, Marlene McCay's magnificent camp in the Timbavati Private Nature Reserve with its wonderful STE study site in the low veldt of eastern South Africa. Here the dry year has not really affected the elephants, which seem not only to me but – more importantly – also the local experts, the Henley's, to be in good condition throughout. However, hunting licenses in the Association of Private Nature Reserves, on the border of the Kruger national park, have increased significantly in number, with most severe consequences for some of the middle-aged bulls. I am not sure whether this might be the beginning of a pattern, or the consequences of a hopefully temporary drought in the financial markets, that has hit local landowners hard. However this may be, as a group these elephants have fared better than the Congo, Samburu and Mali elephants. In the Congo rainforests, the Africa-wide drought might not have had the impact on the elephants that it had in Samburu and Mali, but poaching seems to be hitting them very hard indeed. Mali's drought has led to much

conflict – mostly around drying up lakes and underpowered pumps - between elephants and people with their livestock, with the latter coalition generally having the upper hand. However, STE has chipped-in for the elephants and provided much needed help by building a concrete water tank and defending the elephants' moral rights to water.

Finally, Samburu, our core area, has seen some heartrending elephant tragedies. Mohican our most impressive matriarch, and one of the stars of 'Secret lives of Elephants', died as did Rosemary the matriarch of the Spice Girls, and many of the babies and small youngsters in other families. The Winds with baby Breeze have simply disappeared out of the reserve, and at present we are looking for them to find out who has survived and who has died. As to the bulls: Esidai, one of our top males as well as an old and trusted collaborator in STE's efforts for long-term data collection, has also died, probably because of the drought but perhaps he was poached. We will search his carcass with a metal detector for bullets later. Sadly, in and around Samburu poaching has increased significantly being fuelled by a combination of global and local factors. Globally, the disastrous CITES decision to allow the sale of ivory, albeit intended as a 'once-off', has led to a market that is now – once again – tempting both poachers and smugglers. Locally in Samburu, the combination of increased ivory prices is coupled with high levels of political volatility, coinciding with the most severe drought in memory - disastrous climate for our elephants to experience. Let us hope that things are improving - fast. The good news is that, as I am writing this, the rains are predicted to fall, any time from days to within a month or so. But even this is with a large grain of salt: drought-related overgrazing throughout the ecosystem has denuded the soil to such an extent that flash floods are predicted. All fingers crossed that the first rains will be gentle.

However this may be, while these are hard times for today's elephants they are also providing us with key data on an ecosystem under extreme pressure, showing once again how important STE's long-term view and data-collection is (and will be) to help conservation management. Our scientists and researchers (and that very much includes our hard-working assistant researchers in the camp) continued through the crisis to collect invaluable data. These data (always shared and typically published rapidly) will be a unique source for analysis in years to come as the ecosystem recovers. After all, elephants are a key species not only in Samburu but also in the whole Ewaso watershed, which many of our Samburu elephants cover in their annual migrations, as our tracking has shown. One question will be foremost on our mind, I am sure: how will the extended elephant family of Samburu cope with, and recover from, the loss of several key matriarchs and a hugely unbalanced demography?

In this, as in everything else, lets us hope for the best.

20th September 2009

## Long Term Monitoring

by David Daballen

### Collaring

For the eleventh year running we have continued our Long Term Monitoring of known individual elephants across the Samburu and Laikipia regions of Northern Kenya. Our research team have continued to monitor the movements of elephants, replaced some collars and collared new elephants. We recently replaced Thoreau, Anastasia and Rosemary's collars, all of whom we have been monitoring for many years. Tragically Rosemary was found dead on the 7<sup>th</sup> of September. We think she died as a result of malnutrition due to the drought but we cannot be sure. She was a tuskless cow so would not have been poached for her ivory. As she was the matriarch of the Spice Girls family we are now watching them closely to see how they deal with the loss of their leader.

On a more cheerful note we have attached several new collars within the reserve and also to families in the Lewa Downs wildlife conservancy and the community conservation area of Sera. The increased space and awareness resulting from the Sera community effort means that elephants in the region are no longer constantly on the move in an attempt to avoid human contact. Our collaring data from Sera supports this notion as some of the elephants appear to have calmed down and reduced their movements.

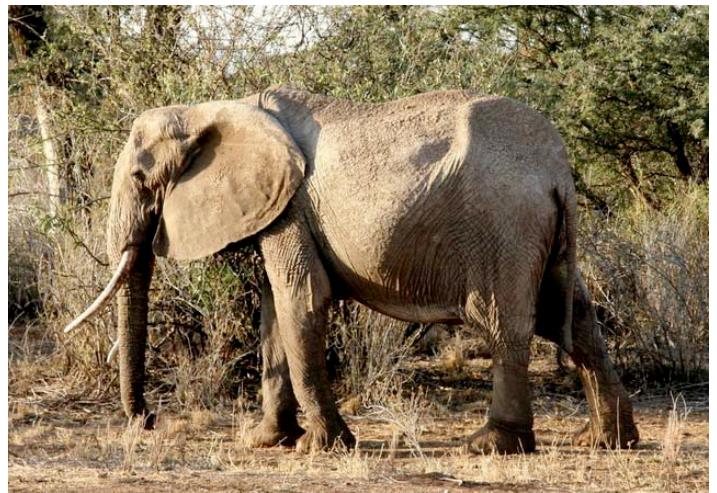
### The Current Drought Situation

Unfortunately the drought in Northern Kenya is becoming an ever harsher reality. We have all been experiencing its effects in many ways. Last year the short rains typical of November-December failed, yet despite having only a few rain showers most of our migrants and sporadic families came into the park as usual. We were very hopeful that the March-April rains would be good and help the increasingly desperate situation. However the rains failed raising the question of what the resulting impact would be. One of

our project goals and objectives is to monitor population dynamics by recording births, deaths, associations and movements. This year we have observed several interesting and unusual changes. Having recorded a high number of calves, we were left to wait and see which age groups will survive best.

As we have not come to the end of the dry season, we cannot yet draw any final conclusions from our findings. To date calves 3-5 years old are seen to be dying more. This is most likely a result of their immune systems being too weak to withstand the current drought conditions. We are witnessing natural selection in action, survival of the fittest and elimination of the weak.

Even though this is a testing and difficult situation, there is much data to be recorded and many lessons to be learned. The historians are telling us that in terms of dry cycles this could be among the worst. It will be useful to have the data recorded as a benchmark for future droughts.



*Navajo the matriarch of the American Indians, emaciated and on her last legs. Navajo died on the 29th of July 2009.*

## The Royal Family Survive the Drought in Samburu







*Left: Cleopatra gave birth in 2006 Right: Cleopatra emaciated with the same baby*

These photos of the Royal Family, a dominant group, show clearly the deterioration in their condition. The difference can be seen between Cleopatra in 2006 (left - center) and 2009 (right) and we are worried about whether she will survive.

## The Birth of Toto Raj

Photos by Charindi Ranasinghe and Lisa Hoffman

Amidst the current drought the birth of the newest member of the Royal Family has been an absolute joy for the Save the Elephants' research team in Samburu. Annabel gave birth to Toto Raj on 15th of August 2009. The entire labour and birth was caught on camera by Charindi Ranasinghe. He and Lisa Hoffman have been kind enough to let us use their pictures. The birth of Toto Raj can be viewed on the following link:

<http://www.youtube.com/watch?v=2RYRnIly3tM>





## Monitoring of Illegally Killed Elephants (MIKE)

by Festus Ihwagi

Monitoring Illegal Killing of Elephants (MIKE) is an initiative of the Convention on International Trade in Endangered Species (CITES). As in the previous years, STE has been actively involved in MIKE. Reports of dramatically increased poaching over the last year are a serious cause for concern. In Kenya, MIKE results for Laikipia and Samburu sites are detecting a continuous year by year increase in the proportion of illegally killed elephants in all dead elephants found since 2003.



*Chris Leadismo verifying a freshly poached carcass*

This year STE participated in a joint exercise with the Kenya Wildlife Service (KWS) to harmonize carcass records in KWS's field offices and those at the headquarters. In one week long exercise conducted in July 2009, Iain and Festus teamed up with Moses Litoroh and Anthony Wandera to verify records at Nanyuki, Isiolo and Mararal Kenya Wildlife Service offices. This was geared at getting a harmonized data set for the first half of 2009.

The first half of 2009 is showing even higher numbers of freshly killed elephants in this MIKE site. This could be a tipping point. In their annual report, Kenya Wildlife Service says that illegal killing for ivory in 2008 across the country was double the level of 2007. They openly blame the CITES' decision to allow the sale of ivory stocks in southern Africa.

The year 2009 has come with more challenges for the elephants with a severe drought leading to massive losses of wildlife, elephants are not spared either. By mid 2009, losses of elephant calves in Laikipia was a great concern and KWS dispatched a team of veterinarian officers who after lab tests on autopsy materials conclude that there was no disease outbreak as has been hypothesized earlier. In a televised interview, the head of elephant programme coordinator, Moses Litoroh attributed the deaths to the drought as the calves can't easily access available forage, and the mothers have hardly any milk for them. It is expected that the proportion of illegally killed elephants in the year's total deaths will be lower than other years due to the rise in these natural deaths.

Save the elephants has been requested by the CITES secretariat to write a formal report on the trends in elephant deaths in the present Samburu / Laikipia MIKE site for presentation at the CITES Conference of Parties' in Doha, Qatar in March 2010. This is being undertaken by Iain Douglas-Hamilton, George Wittemyer and Festus Ihwagi. This report from Save the Elephants will give our work the chance to influence elephant management policy at an international level.

## Death of Known Elephants

by Alice Leslie

Over the last twelve months Save the Elephants have lost a huge number of old friends due to the current biting drought and the increase in poaching for ivory. Just a few them are pictured here.



*Kipini, one of the coastal bulls that we had been tracking for just four months before he was shot for his tusks*



*Esidai - famous bull. Cause of death unknown.*



*Navajo, the matriarch of the American Indians died as a result of the drought in Samburu*



## Mammal Census

By Jerenimo Lepirei

Since 2006 STE has been conducting sample transects across Samburu and Buffalo Springs to monitor the numbers of different mammal species in the reserves. This is a huge amount of data and since April 2009 I have been cleaning the mammal census database so that it is ready for analysis. Due to the severe drought that we are currently experiencing more and more herders have entered the reserves with their livestock and these events have been recorded during our weekly census trips.

Although there are a lots of animals dying, both livestock and wildlife, there are also a lot of animals coming into the reserve for protection and water. Interestingly the number of endangered Grevy's zebra has increased significantly during the drought which could be because they feel safer inside the reserves that outside, or because they need a more consistent water source.

It will be interesting to see how the numbers of mammals in Samburu National Reserve differ before, during and after the drought



Above: Endangered Grevy's zebra desperately searching for water.  
Below: Goats mixed with giraffe inside Samburu National Reserve



## African Elephants Adopt Surrogate Relatives to Replace Those Killed by Poachers

Over the last five years George Wittemyer and Save the Elephants have conducted a study of the family structures of 900 elephants in the Samburu game reserve in northern Kenya. The study revealed that elephants are now adopting surrogate relatives to replace members of their herd who have been poached for their tusks. The Samburu elephant population suffered exceptionally high rates of poaching during the 1970s when their population is purported to have fallen by about 85%. Therefore this adoption phenomenon is helping the african elephants survive, according to Dr George Wittemyer's findings which are published in Proceedings of the Royal Society B. Elephants typically interact with members of their own herd with whom they share genes and do not mix with members of other herds due to a lack of common genes. For the first time different herds have been seen to be joining together. Dr George Wittemyer of Colorado University says that elephants are organised into family groups consisting of about 10 animals that are led by the eldest female, forming a matriachy. They travel over considerable distances, dig water holes, forage for food and are always together. Elephants maintain a hierachial structure, as do humans, in which families are grouped into extended families, which are further grouped into clans forming a single unit; a nested structure. This hierarchal complexity is rare among animals and so an examination of how it arises offers unique insight into the evolution of social behaviour. Dr Wittemyer asserts

that this well defined hierarchal structure found in Samburu was not strictly genetically based, with non-genetically related elephants being incorporated into a herd of genetically related elephants. This maintenance of the elephants complex social life in the face of poaching demonstrates the importance of family and friends in this species. Despite this human-driven destruction of the african elephant social structure, the elephants formed new bonds with non-relatives to rebuild their nested structures. It becomes clear that the elephant social structure is not necessarily based on genetics. The fact that the elephants benefit from these relationships can be assumed to be the reason for formation of the complex hierarchal and social structure among elephants.



Photo credit Micheal Nichols / National Geographic.

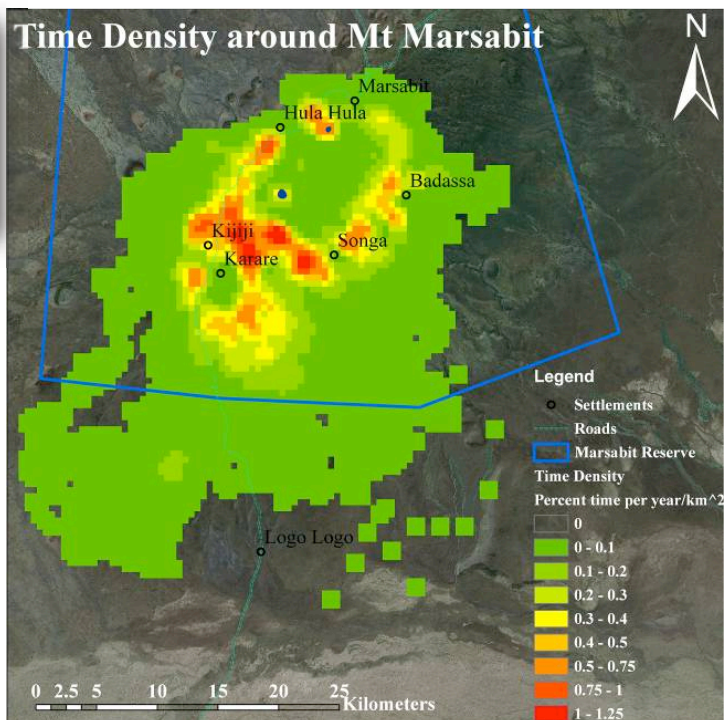


## Marsabit Elephant Tracking Project

By Henrik Rasmussen

The GPS tracking project of elephants in Marsabit was initialized in 2005. We now have high resolution tracking data in Marsabit from 12 elephants (6 females and 6 males) since December 2005, with a total of over 115,000 data positions. The data from in and around Mt Marsabit clearly shows the almost circular area of high utilization along the forest edge. In addition to ranging around the mountain, elephants have been shown to migrate up to 60 km to the north east as well as over 100 km to the south into the central part of the Mathews Range. The next step is to use the data to implement good management plans for the sustained human elephant cohabitation in the area.

This project is supported by African Parks Network. A paper has been published led by Shadrack Ngene of the Kenya Wildlife Service who is currently writing his PhD at the International Institute for Geo-Information Science and Earth Observation.



## Coastal Elephant Tracking Project

By Henrik Rasmussen

The newly started coastal project: "Monitoring of African Elephants along the North Kenyan Coast" is supported by the US Fish and Wildlife Service, with helicopter time from Halvor Astrup. The project aims to increase knowledge about the small remnant population of elephants in this remote biological hotspot and to enhance the security of these elephants via the use of GPS satellite tracking. The total number of elephants in this northern coastal region is unknown but maybe as low as a few hundred. Elephants have been recorded both in Boni and Dodori forest, South of Lamu around Lake Kenyatta, in the Tana River Delta and further north along the Tana River. This is likely all part of one combined historic range but could represent distinct, fragmented range segments. Alternatively there may still be one overall population with elephants migrating between different parts.

The vastness of the area along with the low estimated number of elephants in the region made the February operation very difficult but we managed to deploy two collars - one in Kipini Conservancy and one by the Tana River Delta. Unfortunately, we lost one of the two elephants to poaching. We plan to attempt a new collaring operation soon and hope to deploy two more collars within the Boni /Dodori region and further north along the Tana river.

The sighting of a fresh carcass with the tusks removed during the collaring operation (below left) and the poaching of one of the two collared bulls, 45 year old Kipini (below right) after only a few months of tracking is a clear indication of the present danger to the elephants in this area.



*STE darting team debriefing on the beach*



# Aerial Surveillance, Security and Monitoring of African Elephants along the North Kenya Coast

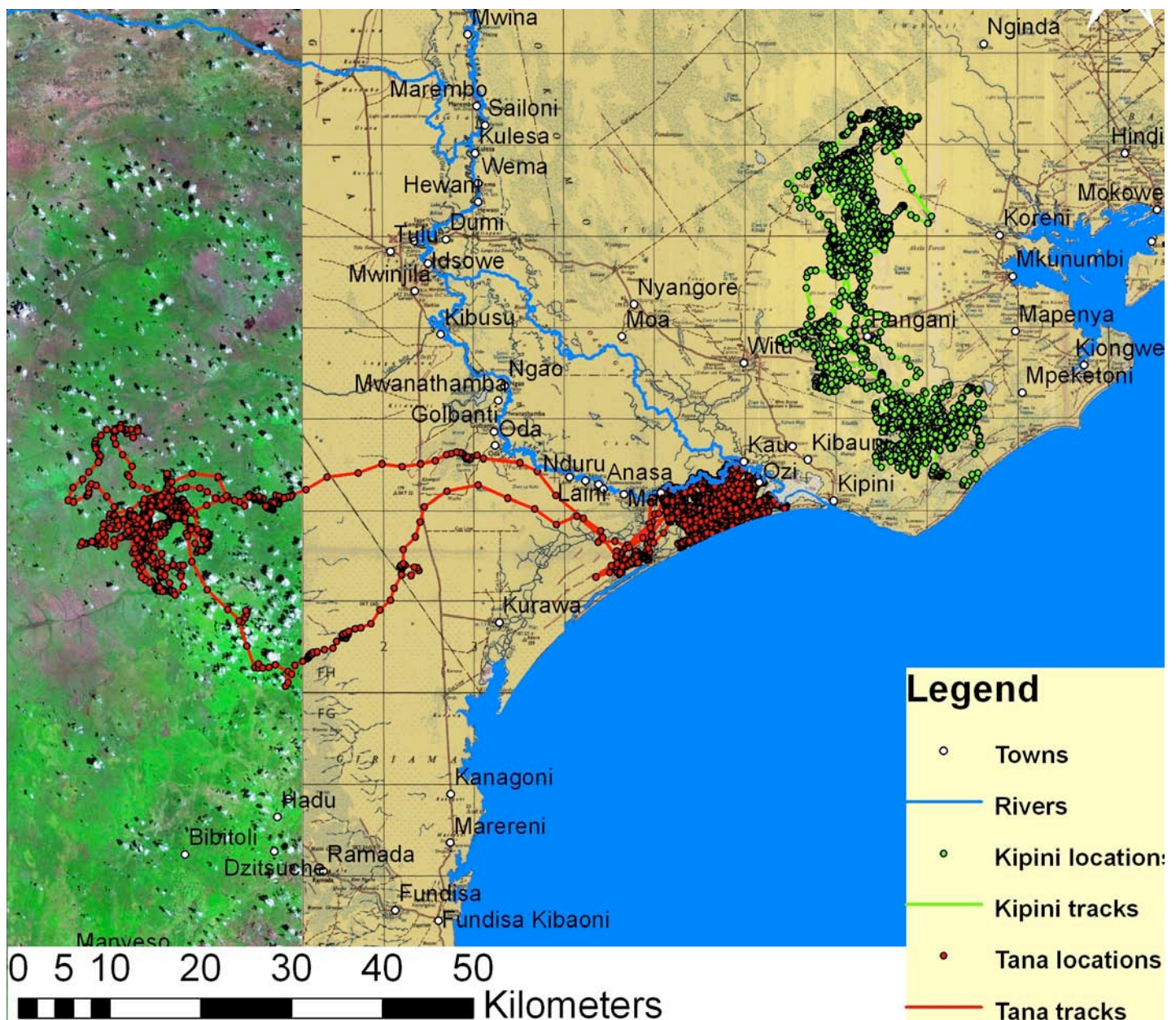
By Iain Douglas-Hamilton

After all our efforts to tag the rare coastal elephants in February, which was only possible with the very generous donation of helicopter time by Halvor Astrup, and a grant from the US Fish and Wildlife Service, one of them, "Kipini" was poached in June. I visited the carcass on the 3rd of September 09. Before he died he opened a whole new vista on elephant movements from the sea, through the "Nairobi Ranch" into the hinterland towards the Tana River, shown in the map below.

The other bull, "Tana", is still alive. We look at him on Google Earth every day. On September the 3<sup>rd</sup> I over flew the dense thickets of the Tana River delta and heard his signal. A few months ago he streaked 70 km West to Galana Ranch next to Tsavo East and part of that ecosystem. So we have learnt quite a bit about their space needs and survival strategies.

Clearly these elephants are still highly endangered and under severe threat from poaching. However, the Kenya Wildlife Service (KWS) are planning to intensify security operations with increased support from US Fish and Wildlife Service. We intend to tag another two elephants in the near future with KWS.

It is going to be a struggle, but the elephants are incredibly well adapted to hide in the thickets and I don't think they are going to go extinct. All we need to do is to improve their security and they can start the long gradual march to recovery.



*Movements of the bull "Tana" (left) and "Kipini" (right) - September 2009*



# Elephant Movement and Management Strategy for Kenya

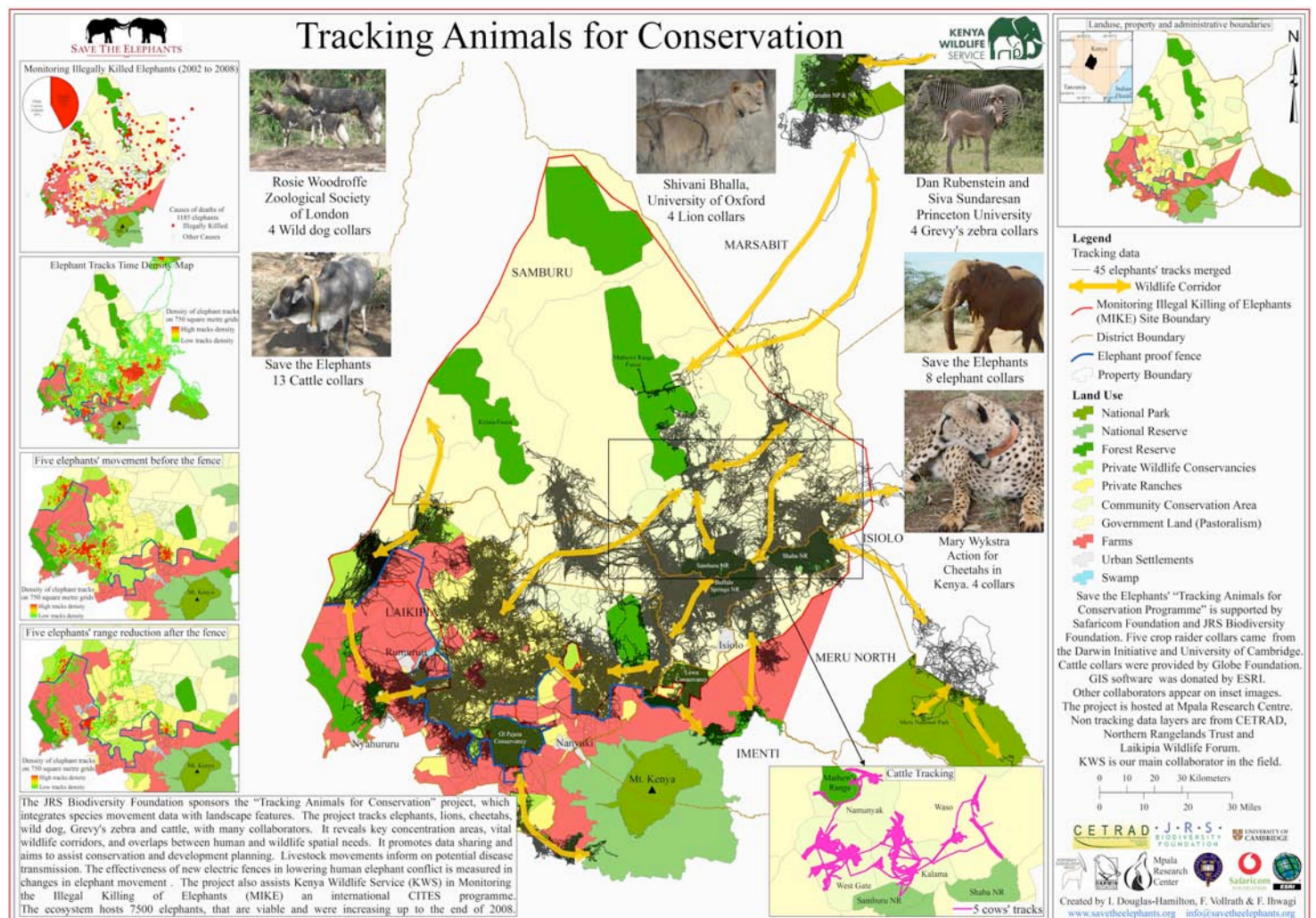
By Lucy King

Save the Elephants have been fully involved this year in the development of Kenya Wildlife Service's nation-wide management strategy for elephants. This is a long process incorporating a multitude of stake-holders and cross-border consultations to ensure that a correct vision and achievable goals are set for the next 5-10 years.

Save the Elephants made a comprehensive presentation to a packed KWS workshop in early September 2009 entitled Elephant Behaviour in relation to Conservation Strategy. This was an opportunity to present 11 years of tracking data to the heads of KWS highlighting migration corridors and land use that we have discovered through careful deployment and management of our GPS collars in Kenya since 1998. The data was largely presented through stunning maps designed by Festus Ihwagi and Barnerd Lewasopir, our two expert Kenyan GIS analysts. We hope that KWS will use our data to build momentum towards recognition and protection for key elephant corridors linking Laikipia to Samburu and the north. We also highlighted the importance of conserving protected area integrity so that elephants have safe

havens to escape to amidst a growing tide of human settlement across the country.

Ultimately this workshop and dissemination of our data represented a huge achievement for STE. In communicating our science and research to a government department at the highest level we are one step closer to our vision of securing a future for elephants in Kenya. This project is supported by Safaricom Foundation and JRS Biodiversity Foundation with numerous collaborators listed below.





## JRS Ewaso Tracking Project

By Festus Ihwagi

Our second year with JRS funding has seen significant achievements particularly in deployment of more collars. The grant has gone towards deployment of eight collars on each of the following species; elephants, lions, cheetahs, Grevy's zebra and cattle. Each of the research partners has matching funds and will complete the set of eight collars per species.



*Collared cheetah*

Lions and cheetahs have been difficult. Mary Wykstra of the Cheetah Conservation Fund has made concerted efforts, in liaison with a vet, to find target cheetahs for collaring but with no success. This is largely due to the fact that the cheetahs' home range has changed with the prevailing drought condition.

Lions continue to be studied by Shivani Bhalla, from Oxford University. She has recorded interesting observations when a collared male and his brother took over a new pride in the community area neighbouring the reserves. One of the young females in the pride has been ear marked for the next collar but she has kept evading the team, often disappearing into the rough terrain. The success of a darting operation depends on sighting the target animal at the same time that a veterinarian is available. This is often not the case. Tagging of wild dogs is scheduled by our partner Rosie Woodroffe within the next few months.

All in all the tracking projects are a bit behind schedule. Our partners have had challenges and setbacks associated with the post election problems in Kenya, and collar acquisition and deployment has not always been at the top of their list of priorities. However, Festus Ihwagi has organized all the paper work, the MOUs are up to date, and this is an ambitious collaborative venture in radio-tracking different animals. Save the elephants continues to give technical and logistical support to the other partners in the handling and collation of tracking data.



*Collared Zebra*

Festus Ihwagi attended the *e-biosphere09* conference in London in June, organised by the JRS Foundation. He and Prof. Fritz Vollrath met Dr. David Shotton and Dr. Graham Klyne of Oxford University's Bioinformatics Department and furthered their discussion on web database design. Dr. Shotton, who heads of the department, has offered to partner with Ewaso Tracking Project in designing and developing an information sharing online hub primarily for non-tracking information available in the form of maps.

One very important spin off of our JRS funding has been the increased capacity of Save the Elephants to collect MIKE (Monitoring the Illegal Killing of Elephants) data as one of the important spatial layers within the ecosystem. In a week long exercise, Festus and Kenya Wildlife Service's (KWS) research scientist embarked on a carcass record verification exercise in the various KWS stations. The MIKE secretariat and Technical Advisory Group recently recognized the importance of this role. Among all the MIKE sites in Africa and Asia we have helped KWS to acquire the best data set on elephant mortality. The systematic recording elephant mortality depends on participatory collaboration of all stakeholders, and the data will be vital to the next CITES conference in March 2010.



*Ewaso Tracking Project Field Monitoring*



# Elephants and Bees Project

By Lucy King



*New beehive fence constructed near Tsavo National Park*

Although protecting and understanding elephant behaviour is at the heart of Save the Elephants, we do work closely with communities who suffer from elephant crop-raiding. By developing innovative techniques for mitigating such problems we hope to increase tolerance and promote co-existence between elephants and man.



*Beehive fence protecting crops south of Samburu Reserve*

Our study investigates the unusual concept of using honey bees as a natural deterrent for crop-raiding elephants. Although elephant skin is almost impenetrable to bee stings, elephants are irritated by bees stinging around their eyes, up their trunks and young calves are particularly vulnerable to a full swarm attack.

In the last year we have expanded our elephant vocalization study even further consolidating a productive collaboration with Disney's Animal Kingdom bioacoustic team in Florida. Our previous discovery, that elephants run from bee sounds, has evolved into a more in-depth vocalization study investigating how elephants communicate about bee threat. In February 2009 Dr Joseph Soltis was able to visit Samburu again for three weeks to continue our work and through this study we are revealing fascinating communication capabilities that help us understand

how elephants respond to threats.

Additionally we have designed and implemented a large scale field trial of our beehive fence design incorporating Kenyan Top Bar Hives into a simple fence designed specifically using local materials and a small budget. After a successful pilot study in Laikipia we were able to show that a rural farm protected by a beehive fence had 150% fewer visits by crop-raiding elephants than a nearby farm of similar size. This small but encouraging result was published in the *African Journal of Ecology* (AJE) in 2009. The large scale trial of the idea in Ngare Mara community (south of Samburu and Buffalo Springs) has been partially successful with 1700m of beehive fences constructed throughout the community. However the drought in Northern Kenya has been so severe between 2008-2009 that the farmers have failed to grow any crops within the experimental sites. We are now eagerly anticipating the upcoming rainy season to test out the effectiveness of these fences.



*Above: Beehive training workshop, Top: Harvesting honey*

The project received a welcome boost of support this year from a generous grant donated by Disney's Worldwide Conservation Fund. Additionally Disney's merchandise team from the Animal Kingdom Africa section has voted to adopt us as part of their "Adopt-a-project" campaign that should help to boost donations through visitors to the Florida site. This support has enabled us to help a badly-crop raided community near Voi with the construction of two beehive fences. The community of Sagella is sandwiched between Tsavo East and Tsavo West and although agriculturally productive due to consistently good rains, they are suffering from crop damage from Tsavo's huge elephant population. Having read about our work in AJE they contacted STE for help. This is a great little project also supported practically and financially by the Kileva Foundation who manage educational and infrastructure projects in Sagella. These demonstration sites will be monitored carefully over the upcoming harvest season to see if they have a significant affect in deterring elephants.

If you would like any more information or a copy of our scientific publications from this project please visit:

[www.elephantsandbees.com](http://www.elephantsandbees.com) or email [lucy@savetheelephants.org](mailto:lucy@savetheelephants.org)



## Ewaso Lions: An update from the field

By Shivani Bhalla

It has been a tough year for the lions. Conflict has risen at a time when the lion population was doing well within the protected areas of Samburu and Buffalo Springs National Reserves. In July and August 2008, cubs were born in the reserves after a 2-year gap of no cubs. Our 2 main resident females, Pixie and Nabo had 5 cubs who all survived the crucial 1 year stage of their lives. New males also moved permanently into the reserves. These males had come from West Gate Community Conservancy and took over the prides in Samburu and Buffalo Springs. Uni, who was one of the first females we identified in 2003, also gave birth to 4 cubs and was seen often in Samburu. The population was healthy and growing in number.



*Uni with her cubs*

Unfortunately, between October 2008 and May 2009, the study population has reduced by 8 lions. Uni was shot dead and her 4 cubs rescued and taken to the Nairobi animal orphanage. Other lions have been killed in conflict or have disappeared. The lion population within Samburu and Buffalo Springs has reduced to an estimated number of only 15 individuals.

We are working hard to increase awareness of lions and conservation within the area. We have held workshops with the rangers and resident drivers of the reserves and the community scouts in West Gate Conservancy. We've shown predator films in villages at night and this has been very successful with the large Samburu audiences. Our tree project is doing well and we now have 71 trees planted in West Gate schools and villages.

Sadly, the area is experiencing a severe drought and wildlife and livestock within the reserves and West Gate are beginning to die. We often dig waterholes in West Gate for the wildlife but it doesn't appear to be enough, as waterbuck, warthog and impala are dying daily.

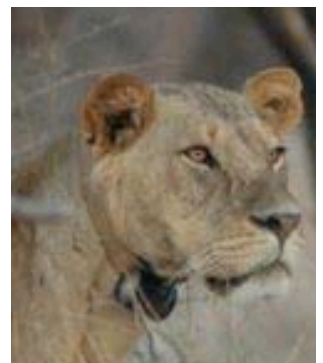
Thanks to a grant from the JRS Foundation, I have 4 radio-collars to deploy onto lions. We successfully collared one male in January this year. Lguret, the maneless male, had moved from West Gate to Samburu in September 08. Since then, we have had 2 failed attempts at collaring in West Gate. Here, lions are very nervous and not habituated to vehicles. We tried using bait in traps but were unsuccessful on 2 occasions. In a year where we have lost many lions due to conflict with local people, I am persevering to collar these community lions. However these operations are costly and I am currently seeking funds to cover these expenses. I would

be most grateful for any donations that can help cover these operations.



*Collaring Lguret with STE*

I traveled to Oxford in November 2008 and spent a few weeks at university catching up with Professor Fritz Vollrath, my supervisor, and working on data. Since returning, I've been busy in Samburu with fieldwork. I was also very honoured to receive the award for Africa's Young Women Conservation Biologist of the year and traveled to Beijing in July 09 to receive the award. Raphael, the Community Liaison Officer for the project, also left Kenya for the first time and traveled to Namibia for 2 weeks to attend a training course on Livestock, Wildlife and Predator Management, sponsored by the Cheetah Conservation Fund. He had a fantastic experience and gained a lot of new insights and information on how to work with communities on predator issues. Joseph also did some computer training in Nairobi in April and now is in charge of all the data entry and databases. Together with Ricila, a Samburu tracker, the 3 warriors also did a First Aid Training course with St John's Ambulance in Nairobi in April and now have the basic knowledge of First Aid.



Amidst the drought and conflict over the year, I have enjoyed every minute of working and living in West Gate at our small camp. I have been fortunate to have 23 sightings of lions living in this community area and it is always a thrill to see them here, outside of protected areas surviving. The community in West Gate has been a privilege to work with and my team of Samburu warriors keep the project alive thanks to their dedicated hard work and efforts into conserving the lions in this fragile semi arid ecosystem.



*Shivani with her team*



## Geofencing

By Jake Wall

The Save the Elephants geofencing program continued this year with ongoing text alerts being sent through the Safaricom network when certain elephants break through virtual e-fences stored in our Nairobi server. The system was instrumental in securing the life of one of Save the Elephants' favourite bull elephants – Mountain Bull - when he was implicated in a crop raiding episode last September near Borana ranch. Communities along the southern edge of Borana had complained of crops being raided by a collared elephant and were looking to destroy the elephant. By promising to

geofence the Borana fence line and alert the community to his movements in advance, the elephant programme officer co-ordinator for KWS, Moses Litoroh, agreed to have Mountain Bull spared. The story was picked up by the newspaper USA Today and can be read at the following link: [http://www.usatoday.com/tech/science/columnist/vergano/2008-09-12-elephant\\_N.htm](http://www.usatoday.com/tech/science/columnist/vergano/2008-09-12-elephant_N.htm)

Further publicity for the Save the Elephants geofencing program can be read in an article that appeared in the February, 2009 issue of Popular Science magazine:

<http://www.popsoci.com/environment/article/2009-01/sos-sms>

and in the Daily Mail:

<http://www.dailymail.co.uk/sciencetech/article-1077121/The-elephants-warn-rangers-heading-crops-text-message.html>

This project is supported by Safaricom and SeaWorld and Busch Gardens.

## African Parks Foundation Mali Elephant Tracking Programme

By Jake Wall

The Save the Elephants tracking program continued into its 2<sup>nd</sup> year in 2009. 9 collars were deployed in March, 2008 and provided a complete year of migration data. However, only 4 bulls are now still functional with 1 female and 3 bulls still reporting regularly. A collar on a bull elephant known as El Mozaar stopped working just 1.5 months after deployment, but recently started reporting again after 13 months of silence, much to the excitement of the entire STE team. It is hoped that collars on the other 5 elephants are still recording viable data even if they are not transmitting it and that we will be able to recover longer datasets when we recover collars.

The new tracking data has been very interesting and given us great insight into the movements of the elephants, particularly in the south of the range near Burkina Faso. We have seen an entirely new area of connectivity appear extending east to west which seems to be the favoured route of bull elephants, while females

tend to trek to the forests on the border with Burkina which raises questions as to why the difference exists.

The data are being analysed to de-limit those areas of particular importance to the Mali elephants and it is intended that the output will help in the planning of new conservation areas which is currently underway in Mali.

This project is supported by African Parks Network.



*A recent picture of Ali Farka Toure – one of the remaining bull elephants with a functioning collar*



*Movements of elephants are triggered by sandstorms*



*El Mehdi in Mali*



## Mali Water Crisis

By Jake Wall

The Mali elephants faced a disaster this year when a key water resource in the Gourma, Lake Banzena, dried completely by mid-May. Although some elephant herds had managed to find pools of water to the south from a rain shower on May 11, a group of between 60-80 elephants remained at Banzena and were forced into direct competition with cattle and herdsmen for drinking water. Banzena last dried completely in 1983 forcing the government to send tankers of water to help the elephants. A partial drought in 2000 prompted the construction of two deep boreholes designed to pump water for elephants should the need ever arise again. This year saw the boreholes used to their capacity and they were run nearly constantly in the weeks leading up to the end of the dry season.



*A typical scene at one of two water pumps installed for elephants*

In January I had spent two weeks with El Mehdi Doumbia (an officer of Eaux et Forêts) in an effort to consolidate information about the imminent drought which was being predicted by local herdsmen. We toured most of the elephant dry season range recording water levels and looking at what options existed for securing a future for the Gourma elephants should the predictions come true. Based on the information we collected, the Mali government along with a local Biodiversity project (PCVGB-E) refurbished the two boreholes and began pumping water.

I was able to return to Mali in early May partly to help with a BBC film production, but also to be present during the crux of the drought. By mid-May things were getting really bad.



*Building of a concrete reservoir to hold water for the elephants*

With 6 elephants dead from possible drought-related causes, the elephants were rapidly losing out and something had to be done fast. Save the Elephants sent out a plea to the international community for assistance and the response was over-whelming. Within days we had enough funding to purchase 1000L of diesel to keep the pumps running. A short time later we commissioned the building of a concrete reservoir capable of holding enough water for 100 elephants to drink each day.

Earlier than normal, rains fell in the Inani area on May 22nd and the final groups of elephants set out from Banzena prompted by the smell of fresh water. Several showers occurred over the following days and enough water fell to allow the elephants to stay in the south. Herders also left Banzena in search of rainwater and left the parched lake behind for another year.

Despite the relief the rains brought, the situation in Mali is still worrisome. The drought we experienced this year could well be one of the signs of climate change that seem to be affecting the whole of the Sahel. The elephants of the Gourma have survived through an incredible capacity to adapt but the changes to the landscape, including the increased numbers of livestock are occurring so rapidly that they could easily upset a balance which has existed for millennia. It is vital that Save the Elephants keep a close monitoring program in place and continue to work closely with the Mali government and other NGO's to provide an opportunity for the long-term survival of the last Sahelian elephants. Thank you to all of our responsive donors.



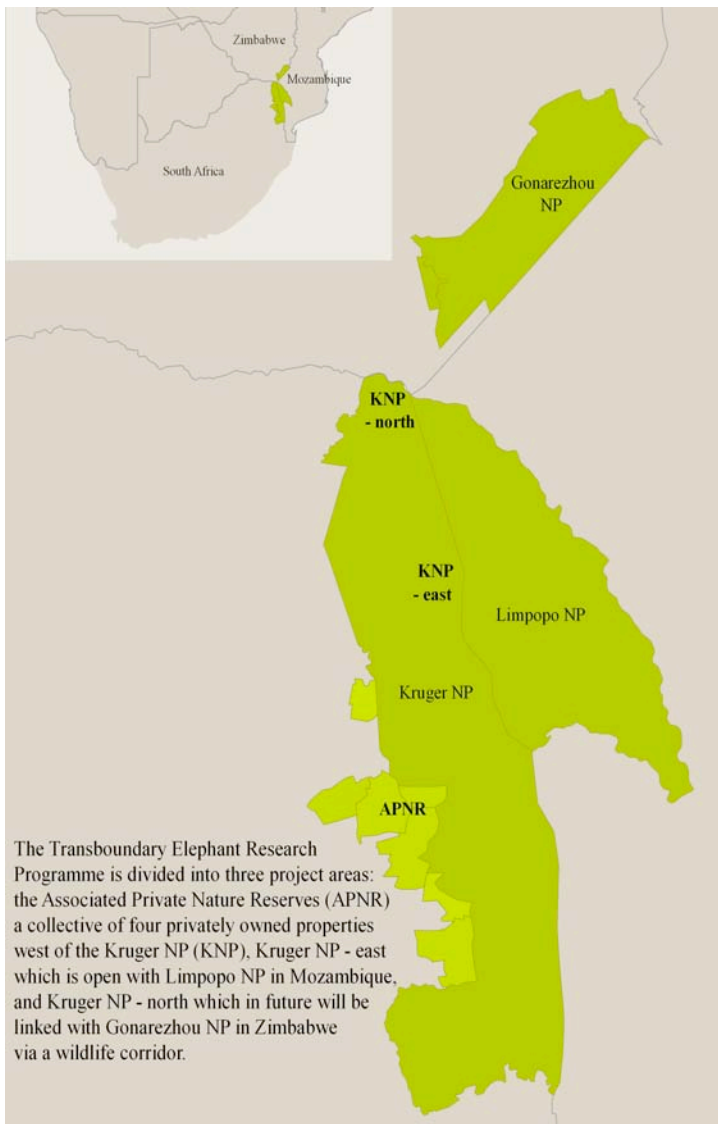
*Emaciated bull searching for water*



# The Transboundary Elephant Research Programme South Africa

By Steve and Michelle Henley

STE's Southern African Research Project, the Transboundary Elephant Research Programme, investigates elephant movement patterns across complex political and environmental landscapes that make up the Great Limpopo Transfrontier Park. The Kruger National Park (KNP) is the central hub around which the other Protected Areas are located. The focus of our research in this area is to get a better understanding of elephant movement patterns, and the underlying ecological and social drivers behind these. These insights will make a substantial contribution toward better conserving Southern African elephants and their environment.



## APNR Study Area

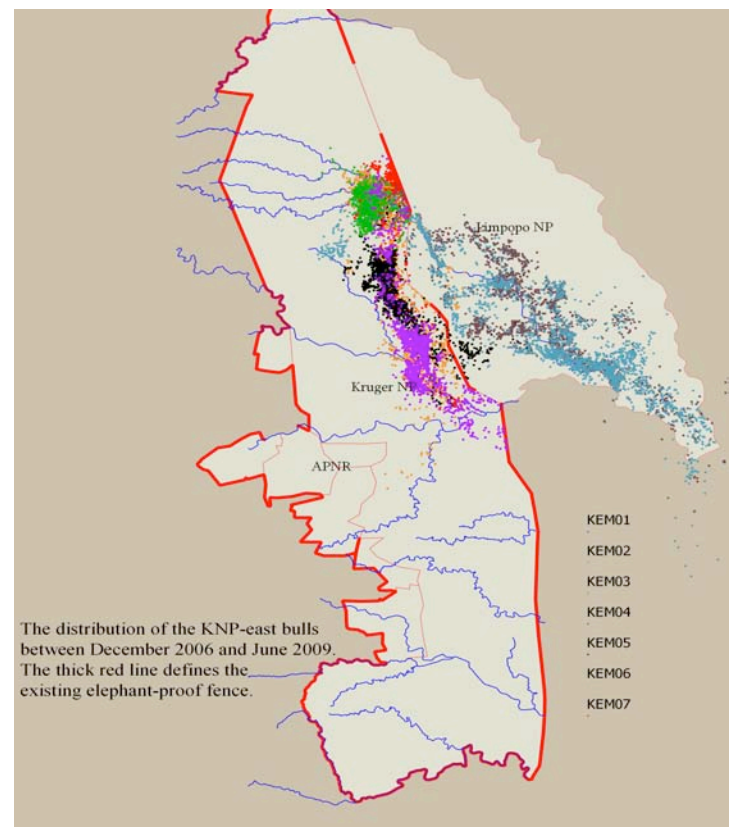
STE's Southern African research effort started within the APNR in 1998, when Dr. Iain Douglas-Hamilton fitted some of the first GPS-telemetry collars to elephant bulls in the Timbavati PNR. Our research team has had a permanent presence within these reserves since 2003 when Dr. Michelle Henley was appointed, followed in 2004 with the appointment of Dr. Steve Henley. Having completed the first five year cycle, much of our effort in the past year has been focused on processing data and preparing for publication. These data include a register of almost 800 known adult elephant bulls and individuals from 24 herds, as well as

resightings data. The re-sightings rate (the proportion of animals seen in the field for which we already have an established identity) varies between 88% for the herds, 73% for the senior adult bulls (>35 years old) and 55% for the younger adult bulls (25 – 35 years old). This means that despite the fact that the APNR elephants have been able to mix with the much larger KNP elephant population since 1993, the elephants in this region, particularly the more socially stable herds and older bulls, form a relatively stable sub population. We are now in a position to recognise most of these animals and record changes in their life-history over time.

To supplement the re-sightings data, we have deployed GPS-telemetry collars. To date we have collared 33 elephants within the APNR. Many of these animals have been tracked almost continuously for three years or more.

## KNP - East Study Area

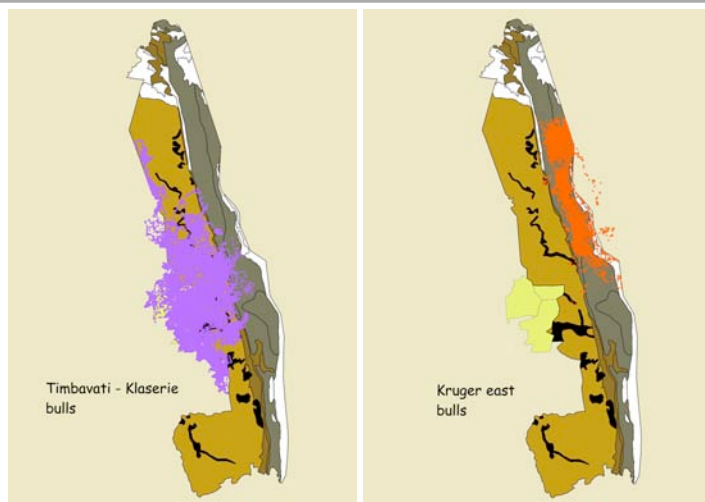
Collars were fitted to seven adult bulls in December 2006 in the east of KNP with the support of SANParks veterinary service and scientists. The primary objective of this project is to establish whether or not elephants from KNP were moving into Limpopo NP with the removal of the fence, and if so, under what circumstances. Four of the bulls subsequently moved into Mozambique and are primarily using the area adjacent to the Shingwedzi River, but avoiding human settlements.



## KE Bulls

KNP-East bulls appear to restrict themselves to the basalt-derived soils that characterise most of the eastern half of the Park. The western bulls remain largely on the granites. What is particularly interesting about this is that we are now able to define the largest spatial scale recognised by elephants within this ecosystem. This is the largest scale at which they make a choice between different areas. It also has important implications for the management of elephants within the KNP, as it describes spatially where different management strategies, such as water-point closure, may be applied to greatest effect. We are planning to deploy collars on breeding herds in KNP-East to test whether a similar pattern applies to this social group and we will also look for movements between KNP and Limpopo NP.





**MAP 3 – Granite-Basalt Divide.** The distribution of elephant bulls collared in the west (Timbavati–Klaserie) and east of the Kruger NP–APNR complex. Areas with an underlying granitic geology are beige, and the basalt grey.

### KNP- North Study Area

Our third study area is in the far north of Kruger NP, where there are plans to extend the Great Limpopo Transfrontier Park to include Gonarezhou NP in Zimbabwe via a wildlife corridor. In October 2008 we fitted the first collar to a young bull in the Pafuri area of Kruger NP and in June 2009 another six. The plan is to have at least 12 collars on elephants by the end of this year, six on adult bulls and six on herds. With the collaboration of guides at the Wilderness Safari Camp, we have initiated an ID study in the area, recording the identities of all elephants encountered. These data will be compared annually to understand the degree to which the population visiting this area is stable from year to year. The identikit collected in the Pafuri region will be compared with an elephant ID register being compiled in Gonarezhou NP to measure the degree to which the two elephant ranges are currently linked. The project aims to provide insights into where elephants move to in the wet summer months when they disappear from northern Kruger NP. It will also contribute to the overall study of elephant movement behaviour and ecology in the Park in general.

Sieglinde Rode joined STE-SA in February 2009. In addition to contributing to the overall programme, she is conducting a research project investigating the influence of elephant impact on the structural diversity of trees and the consequential functional diversity implications. The Project, which forms the basis of her M.Sc., seeks to determine the consequences of elephant impact on the nesting sites of avian fauna and other species. For certain tree-nesting birds such as the Southern Ground Hornbill (*Bucorvus leadbeateri*), elephants may be removing potential or existing nesting sites by felling large trees. Elephants may also reduce the survival rate of trees by extensive ring-barking. Various tree nesting raptors which have been listed as vulnerable in the *Red Data Book of Birds of South Africa, Lesotho and Swaziland* are potentially vulnerable to the loss of nesting sites due to elephant impact. Hence elephant feeding habits could either be detrimental to the nesting sites of particular species of birds, or elephants may, by breaking primary branches, play a facilitating role in the creation of nests for ground hornbills. Furthermore, superficial damage to trees may contribute toward the production of a food resource, i.e. gum, for primates.

### Collaboration

Three projects with which we are collaborating completed their field work phase in the past year:

- The students of Wageningen University's TEMBO project have returned to the Netherlands to analyse their data and write it up.
- In June 2008 Dr. Andre Ganswindt finished tracking our

collared elephants in the east of the Kruger NP, where he was investigating the physiological drivers behind musth, and has returned to the University of Pretoria to complete his post-doctoral work.

- Azhar Rajah successfully completed his B.Sc (Hons.) dissertation, investigating the relationship between elephant range use and vegetation greenness (NDVI). We are in the process of co-authoring manuscripts from each of these projects that will be submitted for publication in scientific journals.
- A new book has been published, a comprehensive guide to management of elephants in South Africa. Michelle Henley is one of the authors.

### Bush School

In December 2008 and February 2009 STE ran two bush schools for children from the Kunavelela Community Project in Hluvukani, an area bordering the Kruger NP. The first was a group of nine boys and the second 10 girls.



*Children from the neighbouring communities track elephants*

The STE – SA Transboundary Elephant Research Programme receives a substantial portion of its funding from Marlene McCay and Tanda Tula Safari Camp. We are very grateful for the recent financial support that we have received from US Fish and Wildlife's African Elephant Conservation Fund. Additional significant funding has been received from the Wildlife and Environment Society of South Africa, the Gower Trust and numerous individual donors who have donated GPS collars. The support of SANParks, and the landowners and managers of the Timbavati, Klaserie, Umbabat and Balule Private Nature Reserves is acknowledged. Wilderness Safaris and ConservAfrica are contributing toward the research project in the Kruger north.



# Trigger and Regulatory Mechanisms of Musth in African Elephants

By Andre Ganswindt

The study is part of the *African Elephant Musth Research Project* (AEMRP) and linked with an ongoing study by *Kruger National Park* (KNP) and the *Transboundary Elephant Research Programme* of *Save the Elephants*, in which aspects of the ecology of elephants relevant to the management of the KNP population are investigated. The overall aim of the study is to identify possible triggers and regulatory mechanisms of musth by describing physiological, physical and behavioural musth related changes and how these influence the use of ecological and social resources by free-ranging male African elephants during musth and non-musth. The study area was located in Kruger National Park (KNP), South Africa and comprises approximately 5,500 km<sup>2</sup> in the northern part of the park. The study was conducted on six adult male African elephants above 30 years of age, which were already fitted with GPS/radio tracking devices. The six focal elephant bulls were monitored continuously for 13 months between June 2007 and June 2008. During this time, the elephants were closely observed and behavioural data collection as well as faecal and urine sample collection for hormone analysis continuously took place.



*Collared bull*

sample collection for hormone analysis continuously took place.

elephants above 30 years of age, which were already fitted with GPS/radio tracking devices. The six focal elephant bulls were monitored continuously for 13 months between June 2007 and June 2008. During this time, the elephants were closely observed and behavioural data collection as well as faecal and urine

Even though some of the collected data still needs to be processed, the results so far clearly underline the importance of non-invasive hormone measurements as a powerful tool to provide information about an animal's endocrine status. In addition, the findings already contribute to a better understanding of the endocrine correlates of musth and the role of ecological and social factors in free-ranging African elephants. Already published preliminary results regarding the temporal relationship between the different physical, physiological and behavioural changes associated with musth revealed that the main physical signs of musth (temporal gland secretion and urine dribbling) first occurred after the elevation in androgens, supporting the hypothesis that the appearance of physical musth-related signs is a downstream effect of increased androgen concentrations. The factor(s) that trigger the initial androgen increase and hence the decision to shift from non-musth to musth are still unknown, but our findings support the hypothesis of an existing internal annual clock, which announces the individual time slot for musth. In addition, the data support findings that the occurrence of musth is rather associated with a decrease in glucocorticoid metabolite levels, than with an elevation, supporting the hypothesis of a suppressing effect of the musth condition on adrenal endocrine function.



*Collared bull in musth with cows*

As an interesting secondary aspect of the study, additional information regarding timing, intensity and variability of the physical and endocrine responses to the occurrence of physical injury could be revealed. The results show that non-invasive monitoring of glucocorticoid metabolites is a valuable tool which can help to assess temporary physical injuries in African elephants. The findings represent a good example for examining endocrine responses to putative stressful circumstances and could therefore be helpful to initiate thematically similar studies in other mammals.

As a further output of the study, information on the sleeping behaviour of African elephants could be collected. Several animals were observed sleeping during the day in a lateral recumbent position under various conditions, and the recorded durations and breathing rate are comparable with information found in the literature. These observations add interesting facts to the limited information available regarding the sleeping habits of elephants and should provide a basis for more specific studies designed to examine the importance of daytime sleeping for elephants, the relationship between sleeping in standing or recumbent position, and environmental factors influencing the sleeping behaviour of elephants.



*Behavioural observations*



## Cattle Tracking

By David Daballen

The Technical Feasibility Project for Cattle Tracking was financed by the Globe Foundation and, in partnership with the Northern Rangelands Trust (NRT) and Perdue University, is incorporated into Save the Elephants' Tracking Animals for Conservation Programme. The project's aim is to track the herding and grazing routes of cattle around the Ewaso Ng'iro River and within the NRT conservancies.

The primary goal of this pilot study was to test the concept of tracking cattle and the collaring equipment required. At the same time, the data from this pilot project may allow analysis of spatial and temporal interactions between cattle, habitats and wildlife (particularly elephants) around Samburu Game Reserve in support of the Samburu County Council's National Reserve Management Plan. This will allow us to monitor, and perhaps predict, disease transmission hotspots and the relationship between rangelands utilization, degradation and/or rehabilitation vis-à-vis livestock movement.

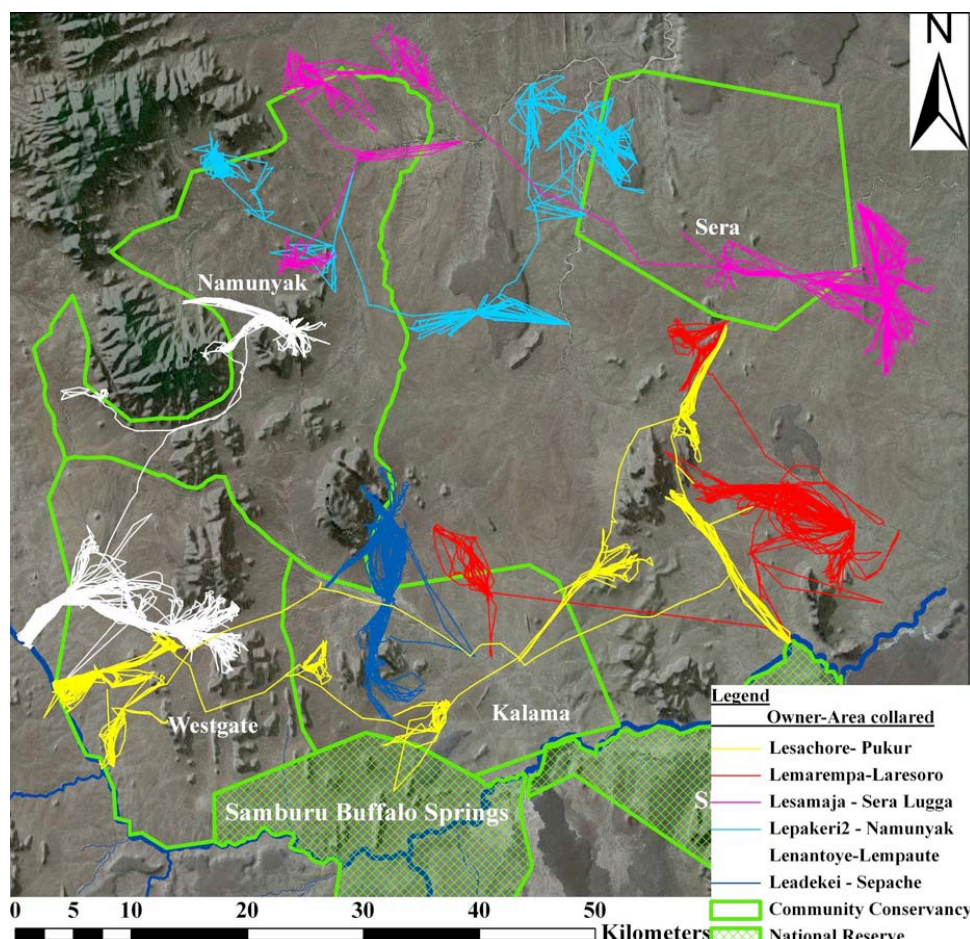
Additionally, measuring the extent to which herders cover the ground is unique data that will contribute to STE's parallel project, MIKE, which operates an information network on monitoring the illegal killing of elephants in northern Kenya.

Several GPS Collars were deployed into community conservancies

and group ranches namely: Westgate, Namunyak, Kalama, Sera and Il Ngwesi.



Twelve collars were deployed between February and June of 2008 and were all removed by July 2009. The lifespan of the collars varied but the data collected revealed fascinating movement behaviour of cattle herds throughout the land north of Samburu Nature Reserve. The map illustrates results from a cow collared in West Gate Conservancy but who traveled many hundreds of kilometers with his herd through a vast area. We plan to analyse all of these movements in relation to elephants and Grevy's zebra. Additionally the GLOBE funds have enabled us to fit a further 5 VHF cattle collars onto 5 more herds around Samburu to enable us to monitor their movements during this severe drought. Special thanks to Susie Fehsenfeld from GLOBE for her support during this project and to Dr Eran Raizman from Perdue University who is helping us with the complex analysis.



*Large inter-seasonal and inter-herd variation was seen in ranging patterns and daily distances covered.*



# Internships 2009

By Alice Leslie

This year Save the Elephants internship programme has been a great success. We've had four fantastic interns who have helped us in a wide variety of ways with our work.

If you are interested in undertaking an internship with Save the Elephants please visit the internships page on our website: <http://www.savetheelephants.org/internships.html>

*From left to right: Charlene Ngoka, Patrick Kabatha and Sarah White outside our head office in Nairobi.*

*Below: Toby Aisbitt in Samburu*



## Toby Aisbitt

My name is Toby Aisbitt and for two months over this summer I have been an intern with the Save the Elephants field team in the Samburu reserve, Kenya. My time here has been governed by the fact that I have been present during the worst drought in living memory. I have witnessed a reserve in turmoil, overrun by livestock and almost entirely devoid of greenery or water. The many projects that the team is working on have been altered dramatically by the desperate situation. It has, however, been the experience of a lifetime.

I am a philosophy and literature student at the University of Warwick in England. Traditionally save the elephants have only had volunteers studying in the fields of Biology and Zoology. Anyone who is interested in the cause should, however, get in contact. I am sure that everyone has a skill that they can offer. I personally have been writing a blog for the save the elephants website. I have also been updating the elephant ID files. This has involved using my love of photography to capture the individual characteristics of the elephant's ears and tusks.

It is very hard to understand the work of a conservation organization without witnessing their fieldwork first hand. The reports that are published make reference to huge collections of data and it is easy to forget the painstaking work that went in to gathering it. I am very thankful to Save the Elephants for giving me such a life changing experience and I look forward to a continuing relationship with them in years to come.



## Charlene Ngoka

My name is Charlene Ngoka and I have completed my second year of Biology at the University of Nairobi. I have been working as an

intern at Save The Elephant since August, helping with the administrative work and also accompanying Lucy King to Tsavo to learn more about her project on Bees and Elephants which she introduced to the local community. I hope to gain more knowledge and exposure as I complete my two month internship here.

## Sarah White

Studying Zoology at Edinburgh University, Sarah White completed a 10 week internship with Save the Elephants during summer 2009, based at the main research camp in Samburu. Sarah undertook the enormous task of analysing the performance of all the GPS radio tracking collars used by Save the Elephants since 1998, incorporating data from over 200 collars deployed in Kenya, Mali, Central and South Africa. The results of her analysis are soon to be published to help inform other scientists hoping to collar elephants across Africa.

*"My task of analysing the collars was a huge undertaking, but the results were fascinating, bringing together over ten years of data from four regions across Africa. It was an absolute privilege to work with Save the Elephants learning about the work they are undertaking to help conserve elephants for future generations. I was based in Samburu National Reserve which despite suffering from a serious drought was as beautiful and enchanting as I had imagined. When not working on my project I was able to help with long-term monitoring of the elephants and mammal census surveys giving me real hands-on field experience. I definitely hope to visit again in the near future!"*



# The State of Vegetation Along the Ewaso Ngiro Riverine

By Patrick Kabatha

Between April and October 2009 I have been undertaking a GIS internship with Save the Elephants. One of my assignments involved assessing elephant damage to vegetation along the Ewaso Ngiro river in Samburu using tree survey data collected by STE over the last 8 years.



*Damaged acacia trees on the banks of Ewaso-Ngiro River.*

In the last decade or so, the riparian ecosystem of Ewaso-Ngiro River has been greatly impacted on by a multiplicity of factors. Among these factors are persistent drought, an intensification of

elephant debarking and browsing plus human development and encroachment from local population increase and settlements.

This has resulted to a drastic decline in vegetation cover alongside the riverbed, thus escalating the rates of soil erosion which in the long run have created more pressure on the already stressed ecosystem.

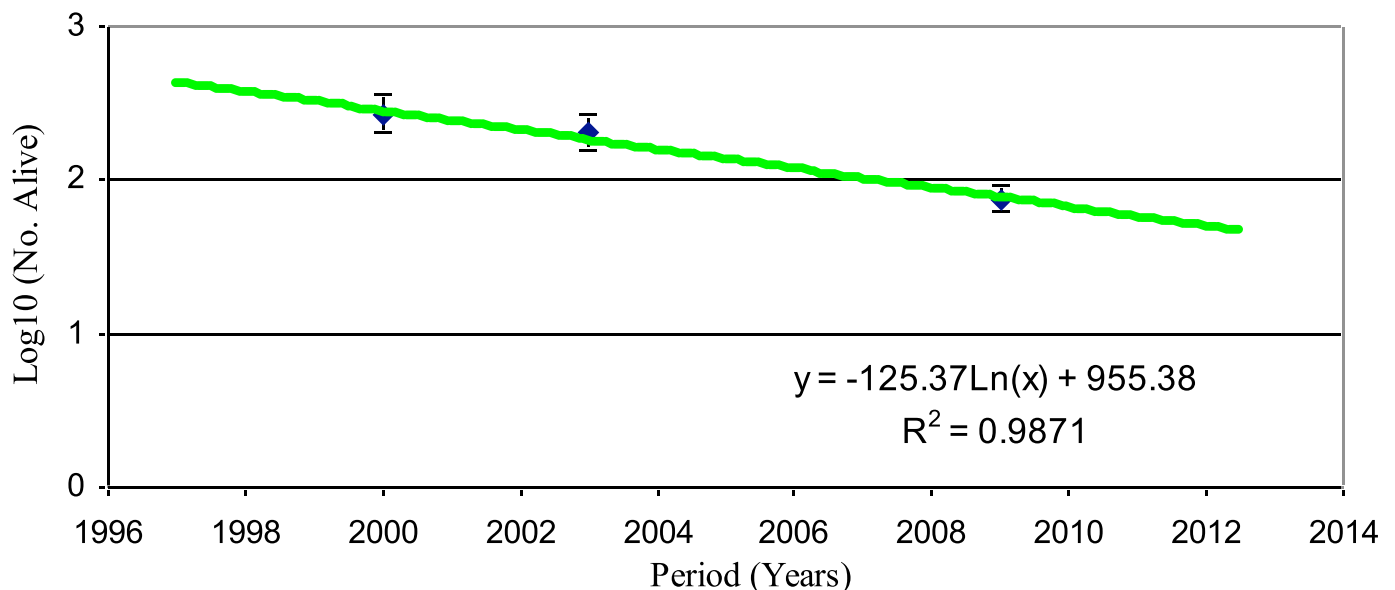
My research concentrated on analyzing four randomly selected plots (50 x 100 meters) along the river line over a 10 year period. They revealed an appalling rate of vegetation degradation.

The survival trends derived from data collected over a span of 10 years clearly shows a significant reduction of major plant species at an alarming rate. The plant species of interest were mostly of Acacia trees which provide the bulk of food material for elephants.

This is a typical type 2 survival curve which suggests an almost constant probability of mortality at any cohort or age size. The trends indicate a 12% annual acacia tree decline. A progressive analysis predicts an incredibly low Acacia population leading into the year 2012 if no mitigation measures are put in place. This phenomenon will possibly have a catastrophic effect on the elephant population since Acacia provides one of the main sources of nutrition.

Possible remedies to the ongoing degradation would include protecting the remaining Acacia tree species by the use of wire mesh stapled around the trunk to prevent de-barking of the largest trees. This has already been tested with great effect and has proved to be a success in protected trees. In addition it is essential that no more lodges are build within the riverine environment within the reserves as this will only result in a concentration of elephants in the remaining wooded areas.

## Survivalship Curve for Acacia Trees





## Education and Scholarship Programme

By Justine and Oria Douglas-Hamilton

The education programme is sponsored mainly by donors who visit Elephant Watch Camp (EWS) and Oria Douglas-Hamilton directs the scholarship programme. This year we welcome Justine Douglas-Hamilton aboard as the new education officer.

Thankfully this year has been much calmer than last, without the political and student turmoil we experienced in 2008. However, nature did not let us off the hook as we were over taken by a natural disaster, a long biting drought, leaving us in an arid dust bowl with no water and little food. We are coping, thanks to our many friends and donors who have stepped in to help us with big and little things for which we are extremely grateful. We would also like to take this opportunity to thank the STE/EWS staff, Head Master, teachers, students and builders for their hard work and support and to the members of the Community, Samburu County Council and Reserve for their collaboration.

### Students



We currently have twenty-four students in the STE/EWS Scholarship Programme, fourteen girls and nine boys, as well as Anthony who is in his 3rd year of medical studies in Nairobi University. For the first time, since we initiated this project 10 years ago, we have more girls than boys. Having recently changed our education policy from choosing children from poor families with mediocre grades to those with good grades, it has enabled us to get them accepted into some of the best secondary schools in Kenya and we have been seeing some really good results. This November, seven of our students will be sitting their final exams. Our highest achievers so far are Benjamin Ltibikishe at Lenana School with an A- grade, Agnes Lekorere and Penina Lekaura, St Theresa's, both with a B+ and Imana

Mary, St Clare's also with a B+. We are helping them with extra tuition and hope they remain at the top.

Last November four students sat for their final exams, and one, Mohamed, scored a line of 'A's. We are very proud of him and are trying to find sponsorship to send him to a good college next year. He is a Somali from a small clan and lives with his mother in Isiolo. Most of our students who finished their secondary education in the last 6 years have got jobs, many in conservation and one girl with a teachers training degree. All are doing really well. We are very proud of them and continue to maintain a close relationship. Our education program in no way encourages the students to change their Samburu culture, but it gives them the opportunity to excel and become future leaders in their particular fields.

### New Students

Three girls and one boy joined our programme this year:

**Jacqueline**, a fifteen-year old orphan from Isiolo cared for by her grand father, is the sixth child out of eight. None of her siblings have been to secondary school and she managed to get a B-. She is sponsored by Ms Ringwalt, from Aspen Colorado and wrote:

'About school activities, we had Women's Day celebrations which was so enjoyable. In fact, I had never enjoyed such a feast before in my life. It was so big that I felt we, as women, have a big chance in the Republic of Kenya.'

**Imana Mary** is eighteen years old and also an orphan. Her parents came from the Turkana Community and both died of Aids. She started secondary school at St Claire of Assisi Girls, Naivasha, which is one of the best secondary schools in the area and received a B+ last term. She is sponsored by Savina Serpieri, Nancy Mulholand and Michelle Kehoe.

**Stephen** is fourteen, a Samburu, and also has eight siblings. Both his parents are illiterate but he excelled at primary school achieving a score of 344 out of 500 for his KCPE. He has been sponsored by Dr and Mrs Balsch and is attending Kaaga Boys High School in Meru. At the end of his first term he too got a B grade.

**Peninah**, is fourteen years old and is the sister of Bernard who is the senior guide at Elephant Watch Camp. Bernard worked to support Peninah throughout her primary school years. She is also in St Theresa's and achieved an A- after her first term. She wrote recently to her sponsors Mr and Mrs O'Hara from LA:

*'First and fore most I would like to thank you for sponsoring me, that is for the true support that you are providing me. It is such an encouragement for me to further my education.'*

### The Future

Our goals for next year are to extend college education and practical training to our high and middle achievers and find another four bright girls and two boys from the communities surrounding the Parks to enroll in top high schools. Following UN Secretary-General Kofi Annan's comments when he mentioned that, "study after study has taught us that there is no tool for development more effective than the education of girls. No other policy is as likely to raise economic productivity, lower infant and maternal mortality, improve nutrition and promote health, including the prevention of HIV/AIDS."

The economic and social benefits of providing universal primary education and eliminating gender disparities are now widely recognized in Kenya and every effort is being made to reach that goal. In our small way, we now are a part of that.



Zeituna Mustafa and friends at Kenya High School



## Support for West Gate School

By Justine and Oria Douglas-Hamilton

Save the Elephants and Elephant Watch support our local school. This is the West Gate School situated on the Western boundary of the Reserve surrounded by elephant ranges on all sides.

Dr Bill Toone from the Ecolife Foundation offered the first substantial support for the construction of a much-needed girl's dormitory and the installation of water. Noticing that there was a serious lack of proper accommodation for both girls and boys, Dr Toone felt that better facilities would encourage parents to send their daughters to school rather than force them into early marriage. An agreement was drawn up and a new era for the school, the children and the community began.



*Left: food and materials arriving at Westgate.*



*Right: Oria Douglas-Hamilton with Mr Johnson (far left) headmaster of West Gate School.*

With funds now available, Oria Douglas-Hamilton invited her friend the well-known architect Bernard Spoerry to prepare a proper plan for the building. Construction started in December. Materials were purchased from the nearest towns of Meru and Isiolo, approximately 30-60 km from the school. The local communities provided the labour and the women collected water from the adjacent Ewaso Ngiro River. The Head Master, the community, STE and Euan McDonald, (a retired banker and trustee of Save the Elephants who was volunteering as a teacher) were involved in all decisions and finances. Additional funds were raised by Oria Douglas-Hamilton, through the generosity of Fred B. Snite Foundation, who responded so promptly to our appeal, the Spoerry family, Gillian Sternheim - Kids In Kenya, and many other friends and donors to purchase and provide the miracle of electric light through solar power, beds, mattresses, bedding, water tanks, paint, wood, a new kitchen with improved cooking facilities, transport and sanitation.

### Feeding the Children

With the very harsh drought and lack of food, maize, beans, fat and famine relief biscuits were also bought and arrived in the "mercy train" to the chorus of 'food - food' and we were able to feed the children. For all the above, we send you our deep appreciation and thanks.

From the beginning of the project the relationship between the wider community and the school was a lot more positive, since the community participated directly in the implementation of the project, which created a sense of belonging and ownership. Many visitors who come to Save the Elephants and Elephant Watch Camp are always keen to visit the school and help with funds and equipment to cater for the many needs.



*Euan and Annie Macdonald in Samburu with STE research assistant Gilbert Sabinga (left) and Daniel Lentipo (right) from the education team*

Last year Euan Macdonald, one of our trustees, after retiring from banking, came with Annie his wife to live at Elephant Watch Camp, and to enroll as a volunteer teacher at West Gate School. This gave us tremendous insight into the challenges and opportunities of helping with the education at primary level of local children. It has deepened a relationship with the excellent head master, Mr Johnson, and has left an enduring legacy with his school committee.

90 pupils in January last year to over 180 this year, of which one third are now girls. Most parents were really keen to see their children get to this school, even though they lived far away, but always with the hope that the children would receive a better education and be fed during the harsh dry seasons, when they have to leave their homes in search of desperate pasture and water elsewhere.

This whole project will be completed by the end of September and we hope to open with a big celebration after the rains have brought back some much needed life and food to the area! I hope some of you will be with us to join the happy crowd. As Johnson Lensula, the head master said while we were unloading the latest arrival of multi-coloured chairs for the nursery school, " this is the best school in Samburu"



*Iain Douglas-Hamilton, Euan Macdonald and the children at West Gate as the work progresses on the new girl's dormitory*



## Professor Thure Cerling's Visit

By Chris Leadismo



*Thure Cerling, his team and our STE Team in Samburu*

In May 2009 we were happy to be visited by Professor Thure Cerling from Utah University and his team, Dan Fisher, Kevin and Chris Remiere. I spent 7 days working with them in Samburu collecting a combination of elephant, vegetation, soil and water samples. Thure is helping STE study the use of isotopes in tail hair as a measure of what our elephants are eating as well as where they are foraging. He was able to pick up all the elephant tail hairs we have been collecting over the past year for further analysis back in his lab. We were also very lucky to meet and host Dr Dan Fisher who told us many interesting stories about his experiences working on the famous "Ice Baby" mammoth that was found in Siberia last year and was the topic of a National Geographic article and film. He was fascinated by the bones of different dead elephants in

Samburu and we were able to share experiences of bone damage from musth battles between mammoths and our elephants in Samburu.



*Dan & Kevin investigating Esidae's bones after he died in the river bed*



*Dan checking Esidae's ribs for musth battle scars*

## A 6 Year Dietary History of One Family of African Elephants

By Iain Douglas-Hamilton

A collaboration of Professor Thure Cerling of the University of Utah and George Wittemyer of the State University of Colorado and Iain Douglas-Hamilton of Save the Elephants studies the six year diet and behaviour of elephants deduced from the chemical makeup of their tail hairs.

Dietary history is laid out chronologically in an "isotope record" along the hair. The well known Royals were followed. The findings traced the carbon and other isotopes in tail hair and movement Victoria, Anastasia and Cleopatra, which provided a record of what one normal family does over a long period of time.

We found that the rate of conception rises as food and water resources become seasonally more abundant each year during the rains. Conceptions rose sharply just a few weeks after the rainy season brought abundant food and water. This means that elephants try and time getting pregnant nearly two years in advance so that the calf appears when the food is most likely to be when the high protein grasses appear.

The surprise finding out of this work came from one season in which the elephants apparently did not eat grasses that should have been readily available. The GPS data showed that they were outside [Samburu National Reserve] in a community area where it appears that they had to compete with cattle and were outcompeted. We found that the elephants lose out to cattle grazing on grasses. The findings point to an imminent problem of the conflict of how humans and wildlife compete for resources. As global climate changes and as human population increases this will only intensify.



## ESRI / SCGIS Scholarship and Conferences and Visiting Google

By Barnerd Lesowapir

In April I was thrilled to hear that I had been awarded a scholarship by the Environmental Systems Research Institute (ESRI) and Society for Conservation Geographic Information System (SCGIS). This meant I was to travel to America, undergo training and give a presentation. On the 24th of June 2009 I left Nairobi for ESRI's campus in Redlands in the USA. Whilst there I met Charles Convis who is the founder of SCGIS. We were later joined by Sasha Yumakaev, ESRI Scholarship Program Coordinator, with three other scholars and Bjorn Svenson, ESRI Consultant and Project Manager with whom I stayed for the rest of the time I spent in Redlands.



*Barnerd with other SCGIS scholarship students and Sasha Yumakaev (far right) ESRI Scholarship Programme Coordinator*

I later proceeded to San Diego for the ESRI User Conference in which both users and developers of ESRI software showcased their work. I attended the opening session that was chaired by Jack Dangermond, the president of ESRI, and helped prepare the SCGIS Map Gallery.

My presentation was based on a study that I carried out between 2000 and 2009 on the impact of elephants on riverine vegetation in Samburu, which mainly consists of Acacia trees.

I also participated in the ESRI San Diego 5 km running race in which I came second with a time of 16:02 minutes.

After the ESRI Conference I attended the SCGIS Conference at Big Bear Lake for one week. Scholars were invited to present their work in which they used SCGIS software. This was my second presentation and it highlighted the work that Save The Elephants does with GIS, which includes Geofencing, mapping the human footprint, Elephant Tracking and Vegetation studies.

I was invited to visit Google during my trip to the US and so flew straight from Los Angeles to San Francisco after the SCGIS conference. I was met on arrival by Karin Tuxen-Bettman, a GIS Specialist at Google who drove me to the Google Headquarters and looked after me during my three night stay.

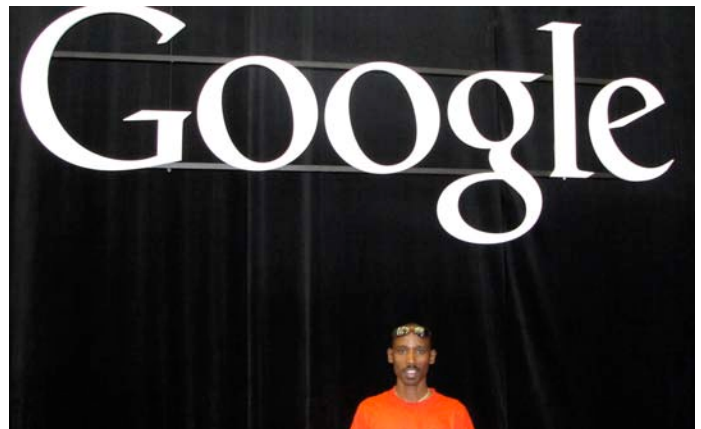
I was introduced to lots of people, shown around the Google headquarters and given training in Google Earth and Google Maps before traveling back to Nairobi.



*My second presentation SCGIS presentation at Big Bear Lake*



*Barnerd with Rebecca Moore (left) and Karen Tuxen at Google*



*Barnerd at Google*

I would like to thank all the SCGIS organizers, Iain Douglas-Hamilton and everyone at Google for giving me this incredible experience. I enjoyed the whole trip which was a great opportunity for me to see the variety of ways that people use GIS.

It was wonderful meeting such knowledgeable people from all over the world and I really appreciate all of the great training, hospitality and experiences, and above all the fun that we had! Thank you very much Sasha Yumakaev and Charles Convis for all of your hard work enabling all of this. Joining the SCGIS scholarship 2009 has been one of my most memorable adventures and my work at Save the Elephants has really benefited from the knowledge I acquired during all of the scholarship programs, particularly the ESRI User Conference 2009 technical workshops.



## **Award: Society of Conservation Biology, Beijing**

**By Lucy King & Shivani Bhalla**

Shivani Bhalla and I attended the Society of Conservation Biology (SCB) Conference in Beijing in July 2009.

The trip was encouraged by the exciting news that Shivani had been awarded the Young Women Conservation Biologist Award by SCB's Africa section for her work with lions and pastoralists in the Samburu ecosystem.

A truly well deserved award and it was presented in front of a packed audience during the opening ceremony of the conference. Well done Shivani.

Altogether it was an educational, eye-opening and sometimes extraordinary week. participated in the Asian Elephant Specialist Group Task-Force Meeting which was discussing and formulating a document on the Human-Elephant Conflict mitigation methods for Asia. I was able to talk about our elephants and bees work in Kenya which was of practical interest to some of the Asian elephant specialists attending the workshop. It was an extraordinary chance to meet so many fascinating and enthusiastic elephant researchers from Cambodia, India, Thailand, Laos, Indonesia, Malaysia, China, Sri Lanka and Bangladesh. Four members are now trying out our recorded African bee sounds on their crop-raiding Asian elephants to see if the sounds will deter them from entering farms and plantations. The rest of the conference was packed with talks, workshops and chances to meet other conservationists from around the world.

In between busy conference days Shivani and I managed to visit

the Great Wall of China which was one of the best days of the entire trip! We walked for about 2 hours along the wall and marveled at the construction capabilities of the ancient Chinese labourers.



*Lucy King and Shivani Bhalla on the Great Wall of China*

The most eye-opening aspect of the trip was being confronted by the Chinese appetite to eat anything with 4 legs (except a table) and anything that flies (except a plane!) We saw gecko, starfish, grubs, locust and scorpion kebabs for sale which shocked us not only because the stings were still attached but because the scorpions waiting on the kebab sticks were still alive! More shocking was seeing some rare and endangered sea horses skewered and fried and being sold on several street stalls. China's culture is unique and fascinating but with its apparently insatiable appetite for the exotic and our precious elephant ivory it is an important country to be encouraged towards more sustainable conservation practices.

## **2009/2010 Class of Emerging Wildlife Conservation Leaders**

**By David Daballen**

This year I was delighted to be invited to participate in the 2009/2010 class of Emerging Wildlife Conservation Leaders (EWCL) in Yulee, Florida at the White Oak Conservation Center. The class was comprised of twenty up-and-coming leaders from the wildlife conservation field, including both U.S. and international participants, all of whom share a passion for wildlife and have been identified as having the potential to be a future leader in our profession.

The course focused on three areas of learning and growth for the participants: 1) Training in both leadership and conservation campaigning skills, 2) Networking with other wildlife conservation professionals and career mentoring, and 3) Experience in planning, implementing and evaluating a concrete conservation project. The EWCL process was guided by a Board of Directors comprised of established wildlife professionals who offered training lectures, career advice, and guidance on the group projects.

We were required to use our leadership influence to direct others towards their own goals and help them accomplish them. We were divided into sub-groups and each one of us had to prepare a speech and communicate with others, enthusing them to strive for their

own goals. This proved to be a very useful and interesting exercise as it's so similar to what we do in the real world. It involved communicating with an audience that held many different stakeholders, seeking a network and creating opportunities at all times to promote and discuss wildlife issues.

This networking was with people from around the world who had experiences that were different from mine but that shared similar goals and interests. We learnt a lot from each other in the class and it was enormously inspiring.

The knowledge that I acquired from this training is a massive asset to my career and the fortunes of endangered wildlife species. I am very grateful to everyone who made this possible, in particularly Wildlife Conservation Network and Jeff Flocken at IFAW who sponsored my participation.



*Emerging Wildlife Conservation Leaders class of 2009/10*



## Inter-organisational visit to the Reference Center on Environmental Information in Brazil

By Festus Ihwagi

In August 2009 I had a once in a lifetime opportunity through the JRS Biodiversity Foundation to travel to Brazil to exchange experiences between STE's Ewaso Tracking Project and the Reference Center on Environmental Information (CRIA).

My motivation to visit CRIA was driven by the fact that they are developing and using IT tools for storing and disseminating biodiversity data via the web. This is the knowledge gap I needed to work on for the benefit of my present project with STE, our multi-species Ewaso Tracking Project, as well as for my personal career development.

I learned about various tools developed by CRIA. These include:

- *speciesLink* network- a information system that integrates primary data from biological collections;
- OpenModeller, a fundamental niche modeling library, providing a uniform method for modeling distribution patterns using a variety of modeling algorithms.
- MapCRIA is a web service provided by CRIA to facilitate the development of web applications that need a fast map production. It is based on the University of Minnesota's [MapServer](#) C API through MapScript for the maps production

After meetings at Campinas, I had a chance to travel to Sao Paulo for a meeting with the staff at the geo-processing laboratory at ISA – Instituto Socioambiental ([www.socioambiental.org.br](http://www.socioambiental.org.br))

The visit was a success. I got to learn more from CRIA and ISA's experiences. I established useful contacts in both institutions that are very willing to share ideas with me in future. I can now use CRIA's open modeler tools with ease and I have more knowledge on the structure of their databases and other tools which I am now starting to use on my data in Kenya. Many thanks to the JRS Biodiversity Fund for sponsoring my trip to Brazil.

## Wildlife Conservation Network

By Lucy King

In October 2008 Iain and Oria headed off to San Francisco once again to partake in WCN's week of constructive workshops, talks, demonstrations, public expo and, of course, donor parties! This year Lucy King also had the privilege of participating in the week's activities. With such a strong team present, STE was able to benefit from all the advice and exposure from the different events and it was an opportunity to meet and swap experiences with researchers from all over the world. As well as STE's elephant presence there were researchers studying cheetah, lions, Andean cats, snow leopards, sun bears, gorillas, giant otters and cotton-topped Tamarinds. Having a chance to see old friends and meet new potential donors was both enjoyable and stimulating and we left San Francisco with new ideas and friends. Thanks once again to Charlie Knowles and all his team at WCN for such an inspiring week and to Bev Spector and Ken Lipson for hosting Lucy in San Francisco.



Charles Convis and Iain



The Spector family



The WCN team on the steps



## *The Elephants of Samburu - A Visit to the National Geographic Society*

By Njoki Kibanya

Last September I finally got to visit the United States of America for the very first time. I was invited by my uncle to attend his 25th wedding anniversary (26 years ago I was a bridesmaid at his wedding!) in Charlotte N.C. In 2007 & 2008, Michael “Nick” Nichols and award-winning science, nature and travel writer David Quammen had visited Samburu to photograph and write an article on the elephants of Samburu (they spent about 140 days!!) for an article that was featured in the September 2008 issue of the National Geographic Magazine. It so happened that National Geographic Society was holding a public showing of these photos and Iain invited me to the function. STE kindly paid for my return ticket Charlotte/D.C/Charlotte. The event was at the Society’s 400-seat Grosvenor Auditorium, one of the largest theatres I have been to.



*The Grosvenor Auditorium*

I know I had ohhh’d and ahhh’d when I had first seen the pictures in the glossy magazine but seeing them on the mega screen was something else! I sat next to my colleagues, George Wittemyer, Jake Wall, and Michael Deutsche and I think the people sitting around us could tell we were having an ‘intimate love affair’ with the elephants! It was just brilliant! And Nick Nicholls told his story very well and had the audience totally captivated – those that had never been to Samburu before could see what they were missing. Those that had been before were already planning a trip back. Iain’s talk was amazing! When I saw Lentipo’s face on the big screen and his big smile, I WAS BACK in SAMBURU!

I was very proud to be part of such a great team! At the reception that followed, I had the opportunity to meet some of STE’s donors who I had dealt with only on email before. It was a delight to meet Robin Clarke and her husband, Anne Sidamon-Eristoff, and the Walters amongst others. This was during the US presidential campaigns and we had such interesting debates and discussions! Amazing!



*The panel of experts at the Q & A*

Nick’s and Iain’s presentations were followed the next day by a session of Q & A for a panel of experts, moderated by Richard Ruggerio (USFWS). The panel included Nick, Iain, conservationist Mike Fay, elephant expert Joyce Poole, Oria Douglas-Hamilton, Onesmas, Jake Wall, among other conservationists. They all gave such brilliant, brilliant presentations – Onesmas ever the great storyteller got applause at the end of his presentation! I would like to give special thanks to Rebecca Martin and Angie Sanders, and the entire NGS team for their help with booking my ticket and accommodation while in D.C.



*George and I outside the White House*

George Wittemyer, together with long time donor and friend Singer Rankin gave me a quick tour of D.C and I loved every bit of it! (Ever since I watched ‘Forest Gump’, I have always wondered how the reflecting lake is – I got to see it finally!) I can’t write all about it here but that was one of the highlights of my trip to America and I take this opportunity to thank both Ghari and Singer from the bottom of my heart for taking the time to take me around. We promised we would do this again once Obama was in office – Now that he is, I hope we will!



## A Visit to the Wildlife Conservation Network and San Francisco's Bay Area

By Njoki Kibanya

After D.C. I was off to San Francisco where long time donor and personal friend, Liz Rigali kindly hosted me and gave me a tour of San Fran!. Best tour guide ever! She showed me San Francisco in less than three days and boy, is the place beautiful or what! The beach, The Wine Country, Pier 39, you name it! Did I mention the Ghiradelli Chocolate Factory and the hot chocolate sundae????!



*Liz and I at a restaurant on Pier 39*

**THEN**, I finally got to do something I have always hoped I would do – visit the WCN offices and meet the superb team! Eve Schaeffer had ever so kindly offered to pick me from the airport when I arrived San Francisco and she also babysat me and took me on a day tour of The Bay Area (visited the Winchester House at Charlie's suggestion– wow! Thanks Charlie) among other places.



*L to R: Nichole, Eve, Stacey, Njoki, Charlie, and Elaine*

It was the best to finally meet Charlie Knowles who I have always admired, meet Stacey Iverson again after a very long time, and Nichole and Elaine for the very first time, and of course Scruf. I had my own workspace at the WCN offices and I can't find words that can describe how exciting that was! Such a great team they all are and I hope I will get to meet them again! Thanks WCN team!



*Charlie and I at the WCN offices*

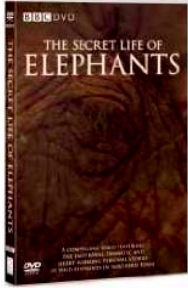
On my last day in San Francisco Liz took me to the Wine Country where I saw some of the best vineyards (and got to taste all sorts of wines and ate Pizza made straight from a charcoal oven!). From here I then went on a real tour – Seattle, NY (Brooklyn & Manhattan), Raleigh (NC), Charlotte (NC) and then back home, Kenya! Great trip!



*Waiting for my 'hot off the oven' pizza at one of the wineries we visited*

Thanks to everyone who made all this possible!





In January 2009 our three part BBC series 'The Secret Life of Elephants' was screened on BBC1. Over 24 million viewers tuned in to watch the rare behaviour that was captured on screen. This launched David Daballen and Onesmas Kahindi as new Kenyan on-screen talent. They joined Saba and Iain Douglas-Hamilton in the field to tell the story of The Secret Life of Elephants. The action was set in the remote and beautiful Samburu national reserve in Northern

Kenya, a peaceful elephant sanctuary where Save the Elephants conduct research. We were delighted that the film was such a success and that it has since been nominated for Best Limited Series at the 2009 Jackson Hole Wildlife Film Festival. Copies of the DVD can be purchased on the BBC website.

*Right: Mountain Bull, one of the stars of the show*

## The Secret Life of Elephants

By Alice Leslie



## Pachyderm

July 2008–June 2009

Number 45



Save the Elephants have published two articles in the latest edition of Pachyderm magazine.

### Drought threatens Mali elephants

By Iain Douglas-Hamilton and Jake Wall

The elephants living in the Sahel of Mali are the northernmost in Africa. Their range has shrunk since the 1970s, probably due to climate change and habitat degradation caused by livestock. They have a circular migration route and one elephant was measured to

have covered 3435 km in 12 months. In March 2008, Save the Elephants attached satellite GPS collars that take hourly geo-reference readings to nine elephants. This movement study, funded by African Parks Network, is part of a long-term elephant conservation project in partnership with the Mali Directorate pour la Conservation de la Nature (DNCN) and the Wild Foundation.

In mid-May 2009 this unique population of elephants suffered an acute shortage of water during the region's worst drought in 26 years. Lake Banzena, normally their main dry season reservoir, dried out apart from a few rapidly drying muddy pools polluted with dead cattle and flapping catfish. The rains normally do not come until June.....

### The current elephant poaching trend

By Iain Douglas-Hamilton

African and Asian elephants are in for tough times ahead. Their problems are complex. In southern Africa worries are still expressed about 'too many elephants' destroying woody vegetation in protected areas. In most of their range, crop raiding and conflict with human beings is reported every week. Currently, there are at least two horrendous droughts in Africa with negative effects on elephants—one in northern Kenya and another in Mali—perhaps related to widespread climate change but very much aggravated by habitat degradation caused by livestock overgrazing. Almost everywhere that elephants live, there is an ever-expanding, resource-hungry human population, with many who live hand-to-mouth. An enormous challenge lies ahead of reconciling conservation with poverty alleviation, and yet leaving adequate space for elephants and other wildlife.

However, arguably, a more urgent immediate problem for elephants in Africa is the increasing trend in elephant poaching, apparently fueled by demand in the East, a rise in the price of ivory, and proliferation of illegal uncontrolled markets. There have been an increasing number of reports, relayed by Melissa Groo's news service, of illegal killing and increased interceptions of illegal ivory hauls over the last year in Africa.\* Frequently these are reported as associated with Chinese commercial activity and demand.....

Both articles can be viewed in full on the publications section of Save the Elephants' website:

<http://www.savetheelephants.org/publications.html>



## BBC Filming - Human Planet

By Jake Wall

In May, 2009 Save the Elephants participated in filming for an upcoming BBC program called the 'Human Planet'. The show will act as a follow-up to the incredibly successful 'Planet Earth' series and is focusing on diverse cultures around the world and their interaction with the natural world. In Mali, the focus was on the unique co-existence of the Touareg and Fulhani herdsmen with the desert elephants. Jake accompanied the BBC crew and, using the satellite telemetry data, was able to provide information on the

movements of the elephants. The series is set to be released sometime in 2010.



## SEACOM Fiber Optic Cable

By Lucy King

Kenya has always been blighted by slow and extremely expensive internet. This has been a significant cost and problem for Save the Elephants as most of our elephant tracking collars require a speedy internet connection to both download GPS positions of the elephants' location and allow us to track them live on Google Earth. This year SEACOM have been installing a fast fiber optic cable up the coast of East Africa and they invited Save the Elephants to be part of their promotional documentary highlighting the benefits to conservation projects in Africa. We enjoyed having the film crew with us in Samburu for a week and the film is an inspiring mix of examples of conservation, health and education projects that the fast internet will help. In practical terms this

means we will see our elephants' positions in real time with no delay, which means we can respond even faster to problems or possible poaching incidents.



**Dr Zahoor Kashmiri**

By Iain Douglas-Hamilton

Dr Zahoor Kashmiri died 31st Aug, 2008

Dr Kashmiri helped us tag all the first batch of Marsabit elephants in December 2006, and is seen here with the epic wanderer, the bull Shadrack.

As an active wildlife vet constantly treating or rescuing animals in distress he also helping STE many times in immobilizations for research he was killed in a remote part of Ethiopia 500 kilometers from Addis Ababa at a place called Harr. An elephant he had injected with revival drug, after darting him earlier to put a collar on, got up within seconds and attacked him while he was attempting to film the revival. We salute his memory.



## Melissa Groo's News Serve

Now approaching almost a decade of service, the African and Asian elephant listservs continue to grow in influence and popularity. This past year has seen a continuing increase in subscribers; by the end of the reporting year, there were 723 African elephant listserv subscribers, and 513 Asian elephant listserv subscribers\*.

Over 2000 news stories were circulated on African and Asian wild elephants. The incidence of elephants in the news seems to be increasing, as elephants come into conflict with people more and more frequently, with their available habitat diminishing, particularly in Asia. This past year the circulated news also revealed a troubling surge in the amount of poaching being reported, as well as increased reports of ivory being illegally transported and seized on both continents. As soon as news is

circulated, it is also now being uploaded to the Save the Elephants web site news page so that visitors to the web site can be kept well informed as well. The stories are archived on the web site and are available to all and searchable.

The year also saw an increase in the numbers of papers being published on elephant biology, behavior, and circumstances, in scientific, peer-reviewed journals. All in all, 137 scientific papers were announced over this period, and can be made available in full to interested colleagues.

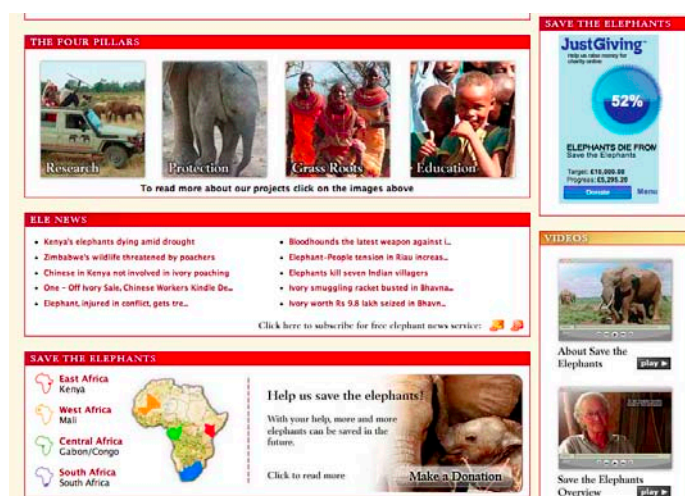
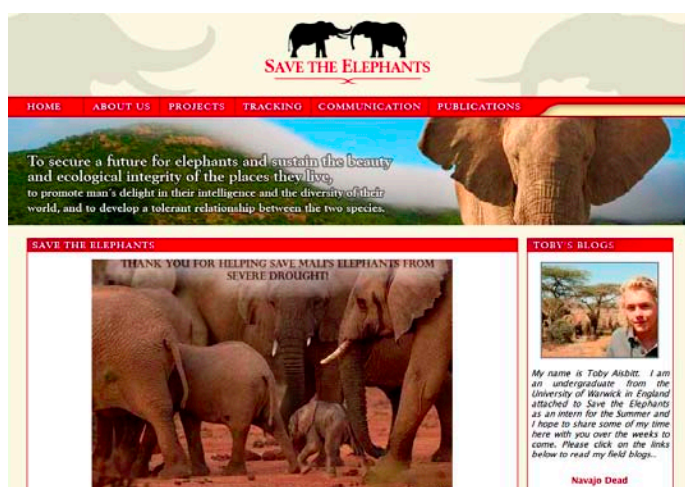
Melissa Groo continues to be the administrator of this listserv, and remains as committed as ever. She sees more clearly than ever the critical need for people to stay informed, in as timely a fashion as possible, due to the ever growing threats to the survival of elephants in the wild, and the need for immediate action. Many people write in regularly to thank her for this service, and speak of the critical benefit it provides to their work on elephant research and conservation. Melissa is also working to develop partnerships with research organizations; for example, with the Smithsonian Institute, to whom she has provided all archives of the news stories, dating back to 2001. The Smithsonian is using these stories to catalogue all human-elephant conflict into a GIS database, categorizing them and plotting locations.

At Save the Elephants we continue to disseminate our research findings to the public through publishing more scientific journals, lectures and presentations, and through our website and various other mediums. We have a new 'Blogs' section (<http://www.savetheelephants.org/tobys-blog.html>) with exciting blogs from the field by interns and STE staff. Not to be left behind by the 'technology' and in order to reach more and more friends and supporters, we have signed up with Twitter and FaceBook! Catch our 'tweets' on [http://www.twitter.com/ste\\_kenya](http://www.twitter.com/ste_kenya) and our FaceBook posts, blogs, and updates on <http://www.facebook.com/pages/Save-the-Elephants/58282388160?ref=ts>. We have also registered with Wildlife Direct and you can read our blogs on <http://savetheelephants.wildlifedirect.org/>

## STE's Website

By Njoki Kibanya

We have also registered with Wildlife Direct and you can read our





## STE New Publications by STE authors and collaborators in the last 12 months

By Njoki Kibanya

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Without the outstanding support and generosity of our donors, Save the Elephants would be at a total loss and none of the vital conservation work that we do would be feasible. It is with this in mind that all of us at STE extend a very heartfelt thank you to anyone who has ever contributed to our projects in any form. We are truly indebted to you and applaud your kindness during these difficult times.

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