

# MPALA MEMOS

NEWS FROM MPALA

TOP STORY

## MPALA'S PEEPING TOM(CAT)

*Natasha Soderberg*

Each morning my husband, Keir, commutes the 200 meters to the ecohydrology lab where he is a postdoc, and I start a surprisingly normal day with my 18 month old daughter, Emma. But, there is always something interesting happening to remind me that Mpala is no ordinary place.

After almost a year of living on Mpala, one night when Emma got me out of bed there was a crashing thumpety thump on the roof. It sounded like something heavy landing and then running across the roof to the other side of the house. While I hushed Emma there were a few quieter thuds as whatever it was moved back to our side of the roof.



*Leopard sauntering at sunrise. Photo by Cara Brook.*

It was a full moon so I stood at the partially closed curtain to look out at the landscape washed into pale shadows. My heart stopped.

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RESEARCH

## S.A.F.E.



*Creating fire breaks for an 81 ha patchy burn on Segera Ranch. Photo by Ryan Sensenig.*

*Ryan Sensenig*

Fire is a topic to surely generate strong opinions - some like it hot...some like it not! I began the Scale & Fire Ecology (S.A.F.E.) project in 2004 with the hopes of answering landowners' questions about whether fire could be a useful tool in creating wildlife habitat and improving grazing for cattle.

The S.A.F.E. project began with the philosophy that fire is neither 'good' nor 'bad' but depends on one's management goals. In 2004-05 we partnered with four different ranches (Jessel, Mpala, Ol Pejeta,

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## WILLIAM EISENHART: AN INSPIRATION

*Jeff Gonya*

There are not many individuals who, at age 97, enjoy terrific health, have an amazing memory, are active in many charities, and practice law. Those characteristics define Bill Eisenhart. Bill also has a life-long interest in African wildlife and we are very fortunate to have him serving as Trustee Emeritus of The Mpala Wildlife Foundation.

Bill grew up in York, PA, where his playmates included Sam and George Small, prior owners of Mpala Ranch. Later, Bill served as the lawyer for George and his family business, the PA&S Small Company, a wholesale grocery distributor. After 1969, when George inherited Mpala from his older brother, Sam, Bill and his late wife, Hazel, became a regular visitors and supporters of Mpala.

**"BILL GREW UP IN YORK, PA WHERE HIS PLAYMATES INCLUDED SAM AND GEORGE SMALL, PRIOR OWNERS OF MPALA RANCH."**

Bill lists the elephants and cheetahs as his favorite Mpala animals, but when asked about his favorite memory, lions are involved. One day while on a game drive with George Small, they spotted a baby lion in the bush. Not realizing that George had driven his Land Rover between the baby and its mother, they were startled by a tremendous roar. George quickly throttled the Land Rover to full speed but much to their surprise, the mother lion gave chase until they were well away from her precious offspring.

In 1989, Bill helped George Small with the development of the Mpala Wildlife Foundation and served as one of three



*Bill Eisenhart. Photo by Jeff Gonya.*

original trustees. He is delighted that George decided to preserve Mpala as a wildlife conservancy and research centre and is especially happy that his alma mater, Princeton University, has been actively involved in Mpala since the beginning.

**"... BILL HELPED GEORGE SMALL WITH THE DEVELOPMENT OF THE MPALA WILDLIFE FOUNDATION..."**

The Eisenharts have been very supportive of Mpala over the years. Hazel and Bill funded Mpala's communications centre - where dozens of researchers and their assistants gather daily to enter data and send emails - in memory of their late son, William Eisenhart Jr. Bill continues to be a loyal donor to Mpala and though he no longer visits, he remains connected and is our inspiration. ■



## LIVING WITH PEOPLE

*Alayne Cotterill*

It's hot and the lions are sleepy. All I see in the thick bush is the occasional flick of an ear or tail until suddenly, several heads pop up. They are looking straight off to the right. I listen and finally hear the unmistakable approach of cows. When the cows begin filtering past the lions, I warn the herder, and together we turn the herd away. The lions don't move a muscle.



*Lioness watching people from the safety of a rocky outcrop. Photo by James Warwick.*

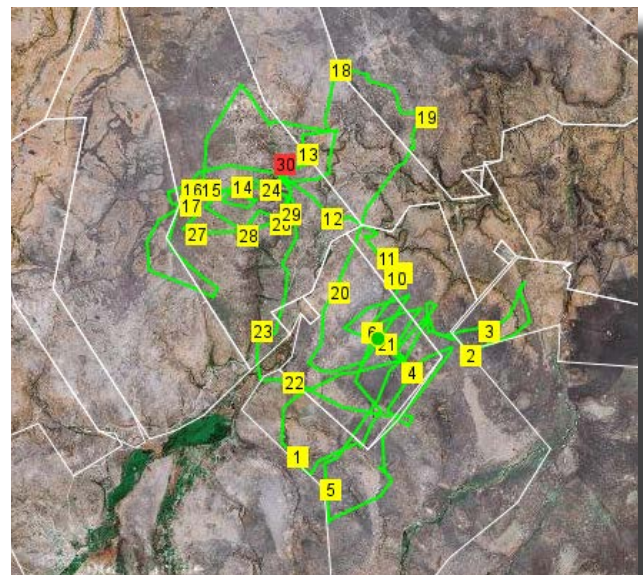
We call our project 'Living With Lions'. I've been asked by a few puzzled people, on seeing the project logo on the car door and my kids on the back seat, how many lions I live with at home. Most, however, know that the aim of our project is to help people coexist with wild lions. Because lions eat valuable livestock and occasionally threaten lives, coexistence is a challenge. It is generally accepted that the solutions for living with lions depend solely on the changes people make to allow wildlife to better share the landscape. But the survival of this charismatic large carnivore depends not only on changes in human behaviour – but also on the lion's ability to adapt and share the landscape with increasing numbers of humans and their livestock.

Fifty years ago any lion that set foot on Laikipia's commercial ranches was shot as vermin. Now, with pro-conservation

attitudes on many Laikipia ranches, lions prefer to remain within the boundaries of these ranches. When they move beyond friendly ranches, they move faster, straighter, and mostly under the cover of darkness. Lions seem to know where they are welcome and behave accordingly.

Foraging models (and common sense!) suggest that lions should choose prey that are abundant and easy to catch. In Laikipia, livestock make up more than 50% of the herbivore population on the landscape, and because they are slow and lack natural defences, they are arguably the easiest to catch. However, a mere 6% of Laikipia's lion diets are made up of livestock. So it seems that most lions choose wild prey over livestock.

We know exactly how many times lions decide to kill cows, but how many times do they decide not to kill cows? Movement data from collared lions is providing fascinating insights into some of the decisions made by Laikipia lions. In particular, it appears that lions actively avoid conflict with people. So next time you see a lion, remember it could easily eat you, but after years of conflict with humans, it will most likely decide not to. ■



*Movement of one lion around Laikipia in June and July, 2010.*

## TO MOVE OR NOT TO MOVE: OPTIMIZING THE BENEFITS OF MOBILE BOMAS

*Kari Veblen and Lauren Porensky*

How long should a boma remain in place before the livestock are moved elsewhere? The answer to this question might seem obvious to the experienced herders and livestock managers of Laikipia. But with the introduction of mobile metal bomas, managers now have more flexibility and may be able to move more frequently, depending on their management goals.

Mobile bomas have several immediate benefits, including predator protection and elimination of the need to cut trees for boma fencing. In addition, mobile bomas have the potential to benefit Laikipia ecosystems in important but less immediate ways. In particular, mobile bomas may allow managers to: 1) place bomas in degraded areas for short amounts of time to fertilize soil and restore plant communities, 2) create long-term wildlife hotspots with nutrient-rich grasses (similar to the long-term glades that develop on traditional boma sites), and 3) move bomas often enough that no single area suffers negative environmental impacts caused by too much livestock grazing (for example, soil compaction or trampling of grasses).



*Mobile boma before the cattle arrive. Photo by Kari Veblen.*

But how long should a boma remain in place to simultaneously maximize positive impacts and minimize negative impacts?

To answer this question, we are working closely with Mpala Conservancy Manager Mike Littlewood and Mpala Research Centre Director Margaret Kinnaird to test the effects of different mobile boma occupation times. With the help of Mpala researcher David Kimiti, we identified fifteen sites with similar soil and vegetation. We divided the sites equally among the following five occupation time treatments:

4-day boma, 7-day boma, 14-day boma, 28-day boma and no boma. In March and April of this year we placed approximately 90 cow-calf pairs into each boma.

One of our hypotheses is that the bomas with the shortest occupation time (4 days) will minimize harm to the surrounding soil and vegetation, but may not be long enough to achieve a restoration effect. Conversely, we expect that bomas



*Boma site after 28 days of cattle grazing. Photo by Fred Erii.*

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# JADA THE ELEPHANT

*Enock Ochieng*

I first met Jada next to the research centre browsing with her calves on the dry leaves of an acacia tree. I knew it was Jada because of her very long pointed tusks that curve slightly upwards and the large, V-shape cuts on both ears. Jada is a beautiful, powerful matriarch of a 24-strong family.

As manager of the Mpala Elephant Monitoring Project, I spend six to eight hours a day, six days a week, searching for elephants across Mpala. I am lucky enough to spend nearly every day amongst these giants. I grew up in the lake region of Kenya and had never seen an elephant until I accepted my position on Mpala, so I will never forget my first encounter with an elephant. Those big, white tusks and wrinkled, loose skin made an indelible impression. And when I first heard a trumpet up close, I felt the immediate raw power of the elephant. I knew there was no messing around with the world's largest land-dwelling vegetarian.

Over the past 2 years, Mpala has compiled a photo identification catalogue of nearly 800 identifiable male and female elephants. It is quite easy to recognize individuals based on their ear patterns and tusks and, after a while, you can even recognize an individual by its gait or personality quirks. My job is to find an elephant herd, note their location and try to identify every individual. For example, when I find Jada's family, I expect to see eight adult females and 16 assorted calves.

Jada's family will always be my favorite because they were the first family I recognized when I joined the Mpala Elephant Monitoring Project in December 2010. The family was easy to recognize because of Jada. And because of her strong



*Enock with the injured Jada. Photo by Theresa Laverty.*

presence, I fell in love. When I realized that her young male calf had yet to be named, I named him after me! Enock entered the catalogue.

On March 29, 2011, during my daily survey, I met Jada, all alone, next to one of Mpala's dams. She was limping and her shoulder was wet. Something was definitely wrong. I called ranch security for help; they followed up and found that Jada had a bullet wound on her right shoulder. We immediately called KWS who sent their veterinarian the following day. I arrived on the scene just after a successful darting. Jada was lying on her side drugged and moaning. She had three bullet entries in her right shoulder and her scapula was shattered. The bullets proved too deep to remove, so after fifteen minutes of washing and sterilizing the wounds and administering large quantities of antibiotics while others cooled Jada with water, the vet jabbed her with the reversal drug and we all went back to our vehicles. Within three minutes, Jada was on her feet. She limped off- surely in great pain- into the setting sun.

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## MBURU TUNI, OPERATIONS MANAGER

*Theresa Laverty*

If there is one person that everyone at Mpala recognizes, it is Mburu Tuni. Tuni, as he is commonly known, is the man behind all sorts of projects – building construction, weekly menus, and arrangements for many Mpala guests (including Prince Edward!). As the operations manager, he works closely with staff, management, and researchers alike to ensure everyone’s satisfaction.

Tuni arrived on Mpala in 2004, fresh from Nairobi, to help design financial management software for the conservancy. After completing his contract, Tuni stayed on as Mpala’s first finance officer with an initial task of setting up robust financial management and reporting systems for the research centre and the ranch. Later that year, he moved from Nairobi to Nanyuki with his wife Esther. Tuni has commuted to Mpala from Nanyuki every day since. Meanwhile, Esther runs a great little fabric shop in town called Lady’s Choice. Even on weekend escapes from Mpala, you are still likely to run into Tuni playing squash or swimming at the Sportman’s Arms, shopping at Nakumatt, or preaching a Sunday mass at church.

Tuni started helping out with administration in 2007. He managed his workload by helping the staff by day and balancing accounts by night. In early 2009, Margaret Kinnaird, Mpala’s Executive Director, asked Tuni to test his leadership skills and take over as operations manager. Tuni took on his new position with his usual dedication and passion. He has increased levels of efficiency in just about every department and has been key in creating a smoother running, more efficient Mpala.

One of Tuni’s favorite aspects of his job is encouraging Mpala employees to realize their potential. He loves to motivate people to challenge themselves and be proud of



*Tuni having a bit of fun in the kitchen.*

*Photo by Laura Budd.*

their work. While he has provided some employee training already, he wishes to expose them to the more modern ways of doing things. For example, he would like the room stewards to shadow their equivalents in hotels in Nanyuki and have the cooks do the same in well-known restaurants. In another effort to expand horizons, improve understanding of how Mpala operates, and increase exchange between the staff and administration, Tuni plans to have department heads sit in while discussing this year’s budget.

Tuni loves a bit of fun. Earlier this year, he donned an apron and chef’s hat to deliver conservancy manager Michael Littlewood’s birthday cake. When everyone is stressed, Tuni is calm and cheerful, taking things in stride and keeping a smile on his face. He realizes that there’s always someone who isn’t 100% happy, but he does his best to change that. Mpala is extremely grateful for all of Tuni’s hard work. Please be sure to stop by his office and say hello the next time you are at Mpala. ■

## FROM THE BIG CITY TO THE BUSH

*Dustin R. Rubenstein*

Columbia University is in the heart of New York City, and for many students, the squirrels in Central Park or the pigeons on campus are the closest they get to wildlife. This past May, however, 16 Columbia students got more wildlife than they could handle as part of a three week field course in Tropical Biology. The course was similar to one that I developed in 2005 with Irby Lovette of Cornell University, while I was still a Ph.D. student. Although we have brought nearly 150 students to Mpala over the past few years, this is the first year I taught the class as a Columbia professor.

Life at Mpala is very different from life on campus. Whereas typical students do not go to bed until the early morning hours, here they rise at sunrise and are active until late in the night. Daily activities include listening to field lectures, discussing scientific papers, conducting field projects, and writing up project results. During the two-week course, students complete four group projects. The first two projects are learning exercises, whereas the last two are independently led and designed. For the first project, students collected ecological data on elephant damage on acacia trees along the Ewaso Ng'iro River. For the second project, they collected behavioral data on foraging and vigilance as a function of group size in plains zebra. For the third project, the students developed their own questions about the relationship between ants and acacias. This year's student-designed final projects included studies of the invasive prickly pear cactus, drongo foraging behavior, and optimal foraging in harvester ants.

Although the students work long days, the highlight of any field course on Mpala is the wildlife. This year, Mpala

did not disappoint. The afternoon we arrived, we saw three male lions stalking a herd of Grevy's zebra. The next morning, we saw four female lions eating a warthog. And the following night, we saw a leopard and two African wild cats. By this point, the students thought daily cat sightings were par for the course. Over the next two weeks, we saw a pack of 40 wild dogs on three occasions (once on an impala kill less than a foot from the road), more leopards and lions, two cheetahs, a few aardwolves, an aardvark, a family of zorillas, and many spotted and striped hyenas. The highlight, at least for me, was a pair of honey badgers seen at dusk, right near the campsite.

No one at the Centre ever believes how much wildlife we see on a field course. When I visit Mpala for my own research, I rarely see so many cats or other rare animals. So I guess the moral of the story is - if you want to see more wildlife, bring a student group to Mpala. Oh, and don't forget your camera to show off your sightings to all the misbelievers! ■



*The Columbia group on Lookout Rock. Photo courtesy of Dustin Rubenstein.*



# MPALA'S PEEPING TOM(CAT)

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Something moved underneath the window. I thought at first it was the monkey that hangs around. Then it slunk under the window ledge, from one window to the other. A leopard! Shoulders tall as the window sill, heavy, muscled, soft and quiet. Its head perfectly balanced between its shoulders and its long tail hanging loose and straight behind. I hastily stepped behind the closed curtain, and the leopard stood up on the sill, peered in and snuffed at the crack in the closed window.

For a heartbeat we stood together, just window panes and curtains between us. The leopard stepped down and moved back under the window and around the corner. I dashed to our room, whisper-yelled to Keir and he woke in a panic and rushed in. I felt the need to close and lock the door and then explained to him what I had seen. We

stood for a while at the window, looking out, exclaiming in hushed tones at one another when suddenly I saw the unmistakable white butt of a monkey. It was up the pathway from the house. It froze, looking back over its shoulder. We froze too.

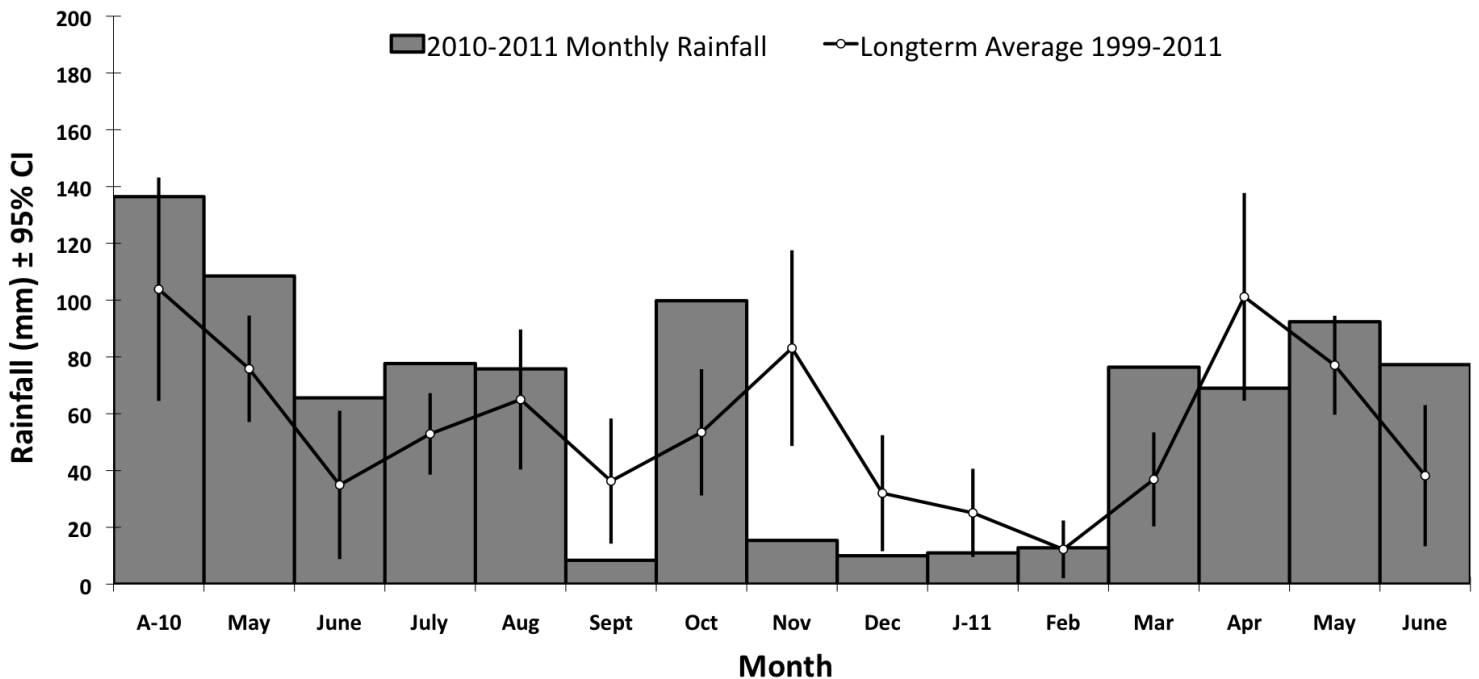
We could see the straight shadow of the roof on the ground, and then it undulated as something slipped noiselessly along it. Then the gutter gave the leopard away with a groan, and the monkey sped up the pathway and into the bush. The leopard ran along the rest of the house, leapt off the roof, in a one-two-three motion and was off up the path as fast as a slip of the tongue.

Keir managed to fall back to sleep, but I lay waiting for tell-tale creaks and thumps from above. Here is the thrill we are privileged to experience living on Mpala, literally face to face with the wildlife we study and protect. ■

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## MPALA WEATHER CORNER

**MRC RAINFALL 2010 - 2011**





## TO MOVE OR NOT TO MOVE: OPTIMIZING THE BENEFITS OF MOBILE BOMAS

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with the longest occupation time (28 days) will be the most likely to develop into wildlife hotspots, but will also experience the heaviest grazing and trampling. We speculate that perhaps the 7-day or 14-day bomas will be a good compromise.

We will be returning to monitor the effects of our treatments on vegetation, soil and wildlife

in August and September 2011. We also plan to repeat our treatments in several new areas. Stay tuned for future updates!

If you have any questions feel free to email us at [kari.veblen@usu.edu](mailto:kari.veblen@usu.edu) or [lemcgeoch@ucdavis.edu](mailto:lemcgeoch@ucdavis.edu), or stop one of the project technicians: Fred Erii, John Lochukuya, and Mathew Namoni. ■

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## MPALA-AT-A-GLANCE

### Farewells and Welcomes

- Mpala says goodbye and thank you to Theresa Lavery, the outgoing Princeton in Africa Fellow, and welcomes incoming Fellow, Laura Budd. Theresa has moved on to Yellowstone National Park to assist on a study of the role red squirrels play in lodgepole pine reproduction. We wish Theresa the best of luck at Yellowstone, but eagerly await her return to Mpala in October when she will work with Dan Rubenstein on zebras. Laura, a recent graduate of Middlebury College, Vermont will take on all the usual tasks conducted by the Princeton in Africa Fellows, as well as assist Margaret Kinnaird with a demographic study of Von der Decken's hornbills.

- Mpala also says farewell to Vicky Zero, who has been the project manager for the Princeton Zebra Project for the past one and a half years. Vicky will be missed, but we also welcome EB Tupper, who

has taken over the position for the next year. EB will be monitoring the health and status of the endangered Grevy's zebra population, studying their feeding ecology, as well as monitoring the plains zebra population.

- Mpala also says goodbye to Morgan Pecora-Saipe, who was at Mpala for the past 10 months. Morgan assisted the GRASS Project with an examination of how different grazing regimes affect wildlife, and she also assisted the Ewaso Water Project with comparing vegetation in and outside of wildlife exclosures.

### Courses & Student Groups

- In May, Dustin Rubenstein, a professor at the Columbia University, taught a three-week field course on tropical biology to 16 undergraduates.

### Coming in our next issue

- Look for an exciting article by Adam Ford and Vanessa Ezenwa on capturing impala and gazelle from the air. ■



*Impala being airlifted during one of the captures. Photo by Annie Madding.*

## S.A.F.E.

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& Segera) to burn more than 16 sites that varied in their size (1, 9, and 81 hectares) and patchiness. Our goals were to determine which species of wildlife used the burns the most and to determine if the size of the burn influenced grazer visitation.

What did we learn? Body size matters! It seems that the short, nutritious grass that grows back in burned sites is most beneficial to the smallest grazers, as we found that an animal's body size strongly influenced how much time it spent in a burned area. For example, Grant's gazelle, impala, and hare had 80-90% of their dung in burned sites! The larger animals (cattle, eland, zebra, etc.) only preferred burns slightly more than unburned areas --- while elephants avoided burns and spent much more time in unburned areas.

nutritious) for 2-3 years. On the other hand, in larger burns the grass grew back more quickly, making them more useful for zebra and other larger bodied animals.

**“...AN ANIMAL'S BODY SIZE STRONGLY INFLUENCED HOW MUCH TIME IT SPENT IN A BURNED AREA.”**

Surprisingly, some 6 years after burning we are still finding that wildlife & cattle find the grass more appetizing in burned sites. One of the most interesting stories is that elephants seem to prefer to eat whistling thorn in burned areas, though we are not sure why. Burning alone does not seem to reduce whistling thorn, but fire and elephants together seems to profoundly reduce the size and number of acacia trees. Are the trees tastier when they grow back?



*Grant's gazelles on a burned plot. Photo by Ryan Sensenig.*

Should burns be big or small? The answer to this question also depends on your goals. If the intention is to create “hotspots” of grazing - where short grazing lawns are continually manicured by wildlife - then burning at the 9 ha scale is best. These burns attracted the most grazers and the grass was kept closely cropped (and therefore very

Are they less defended by ants? I'd love to hear your thoughts – Ryan Sensenig, Goshen College, [rlsensenig@goshen.edu](mailto:rlsensenig@goshen.edu).

Many thanks to all the landowners and managers for their ongoing assistance in supporting the S.A.F.E. project. ■

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## JADA THE ELEPHANT



*Veterinarians try to remove the bullets from Jada's shoulder. Photo by Theresa Laverty.*

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Ranch security found her limping the following day, and then she disappeared. We feared the worst. Six weeks later, I found Jada not far from where she had been darted. She was still alone, but looked much healthier and was eating. When I approached, she lifted her head, flapped her ears in warning, and wandered off. I checked on her every day for a week while she remained in the same area and seemed to be regaining strength.

A few days later, I found Jada reunited with her entire family, eating peacefully next to Jeff (Gonya), one of our large bulls. I was so relieved to find Jada alive, healthy, and with her family – all within two months of her near fatal encounter with poachers desperate for little more than her teeth. Even my namesake, Enock, survived his separation from mom. He looked very content to be by her side once again.

Jada's story ended happily, but not all do. The illegal killing of elephants is on the rise in Laikipia and the greater Ewaso landscape. The day the KWS vet arrived to treat Jada,

he was delayed by two other similar cases in Samburu and Mt. Kenya. We have had a number of elephants die on Mpala, where they seek a safe haven after being speared or shot on other properties.

If it were not for the elephant monitoring team and our diligent security staff, Jada would have died sometime in early April. Her beautiful ivory tusks may be coveted by poachers, but her immense strength and knowledge of where to find refuge sustained her and guided her to Mpala. We are glad to have been here for Jada and her family.

If you would like to help out our elephant monitoring team and adopt an elephant for the year, please check out our [website](#) and email Laura Budd ([lbudd@mpala.org](mailto:lbudd@mpala.org)) for more information. Thanks! ■

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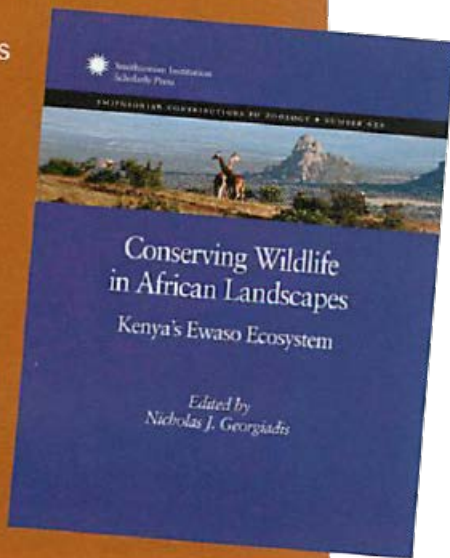
*Still in pain, Jada gets up after her ordeal. Photo by Theresa Laverty.*



## MPALA PUBLICATIONS 2011

## Visions of Kenyan Conservation

This month, the Smithsonian Institution Scholarly Press is bringing forth a new book called *Conserving Wildlife in African Landscapes: Kenya's Ewaso Ecosystem*. A collection of nine papers, the volume reports a shift in conservationists' focus, from saving large mammals in protected areas to conserving whole ecosystems—including the human communities within them. You can learn more at [scholarlypress.si.edu](http://scholarlypress.si.edu).



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*High Dam full of water. Photo by Alick Roberts.*

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 MPALA WILDLIFE FOUNDATION & MPALA RESEARCH TRUST
 

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