

MPALA MEMOS

NEWS FROM MPALA

TOP STORY

FICKLE WATERS OF THE EWASO

Jen Guyton

“The river is like life – it will get less crazy soon.” These words of wisdom were written by my boss, Douglas McCauley, when I reported with exasperation that the river had once again swallowed more than half of our insect samplers. We were only a few months into our study of Mpala’s hippopotamus population, and trying to figure out how we could work around the Ewaso Ng’iro River’s moods.

Some 200km north of Mpala, the Ewaso swerves through a desiccated landscape in its division of the Samburu and Buffalo Springs National Reserves. There, the river is broad, checkered with sandy banks that are crisscrossed by crocodile footprints. The meandering waters reflect

RESEARCH



Hippos cooling off in the Ewaso.

Photo by Jen Guyton.

palm trees and open sky more often than the dense green riparian vegetation that characterizes the steep banks on Mpala.

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MPALA’S WILD DOG CLIMBS MT. KENYA!



Wild dog male 111 made the long journey to Mt. Kenya’s moorlands. Photo by Rosie Woodroffe.

Rosie Woodroffe

An African Wild Dog born on Mpala has been tracked to an altitude of over 3,000m on Mount Kenya. The African Wild Dog is a globally endangered species with just 700 packs left in the wild. The Samburu-Laikipia Wild Dog Project, based at Mpala, is working to develop sustainable tools to foster coexistence of wild dogs with people and domestic animals. Because wild dogs range over extremely large areas, their future survival depends on maintaining vast landscapes of wildlife-friendly habitat. To help conserve such extensive areas, we are currently trying

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THE GOOD NEWS AND THE BAD NEWS: TRENDS IN LAIKIPIA'S WILDLIFE

Margaret Kinnaird and Tim O'Brien

Every other year, two crews of pilots and observers from the Department of Resource Survey and Remote Sensing (DRSRS) hop into their survey planes and take to Laikipia's skies to count all the wildlife and livestock that can be seen from 400 feet above the ground and within a defined strip. The pilots concentrate on following designated aerial paths and maintaining constant speed and altitude while observers dictate observations into recorders, record GPS locations of all sightings, and photograph any herd too large to count.

The surveys continue a tradition that dates back to 1981. Since the mid-1990s, the Mpala Research Centre has been the custodian of these important data. Together with LWF, and supporters like Chester Zoo, Mpala has been able to continue the surveys and build on the data set that now stretches across 30 years of Laikipia's history.

The last surveys were conducted in March 2012. The good news from recent analyses of the counts is that Laikipia still has more wildlife than in 1981. The bad news is that during the past two decades, Laikipia's wildlife numbers have been declining.

For example, ten wildlife species show population declines of more than 35% since 2001. The most worrying declines (>75% downward change) are in Impala, Grant's gazelle, Thompson's gazelle, and warthog. Severe droughts during this decade undoubtedly contributed to declining wildlife but we are not seeing a re-bounce in numbers.

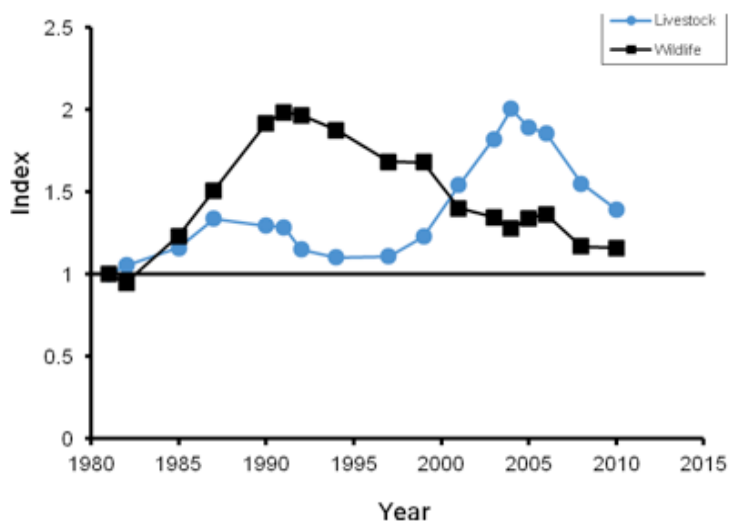
The good news: wildlife numbers are 16% above 1981 levels. The bad news: wildlife numbers are 52% below those in 2000. Graph by Margaret Kinnaird and Tim O'Brien

So why are wildlife in Laikipia declining? That's a highly debatable – and emotionally charged – question. The answer probably involves:

- increasing numbers of sheep and goats ('shoats' outnumber cattle in Laikipia by more than 2:1 and have increased by 35% over the past decade);
- animals moving outside of 'wildlife friendly' properties may suffer on properties that are 'less wildlife friendly', causing an overall decline especially where production on 'wildlife friendly' properties cannot sustain the loss on surrounding properties that act as 'wildlife sinks';
- increasing poaching of wildlife for bushmeat (an issue that needs to be investigated).

There is no doubt that Laikipia still stands as an exemplary model of wildlife conservation and retains its title of supporting Kenya's most diverse and abundant wildlife population, next to the Mara/Serengeti ecosystem. However, we need to be on our toes and remain vigilant to the trends.

If you are interested in reading the full report, contact mkinnaid@mpala.org. ■



LEARNING BY DOING: ANOTHER WAY OF TEACHING CONSERVATION

Nancy Rubenstein

The Northern Kenya Conservation Clubs (NKCC) have been active for five years. The purpose of the clubs is to help students better understand the living world around them - the wildlife and the landscape - and their connection to it. We ask the teachers to take the students outside to experience their environment, to conduct mini-studies to show students how habitats change over time, to read stories to the students, play games that teach concepts, and to encourage students to write about and draw what they're learning. Each club receives a curriculum guide, a box of materials to carry out activities, and a small library of relevant books.

This style of learning – experiential learning – is very different from most classroom learning that takes place in Kenya, which is teacher-centered -- teacher at the blackboard, students copying off the

board. Although the conservation club teachers have watched student interns and me teach using this style for many summers, this different style of teaching doesn't come easily.

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*Teachers writing poetry about conservation.
Photo by Nancy Rubenstein.*

SOIL CONSERVATION FOR THE CONSERVATION CLUBS

Wilson Nderitu

This year Laikipia has received a good amount of rain and Northern Kenya Conservation Club (NKCC) members have been busy making better use of rainwater.

Driving to the schools, I observed the other side of the blessings that come with the



Ewaso Primary School students conducting a transect. Photo by Morgan Pecora-Saipe.

rains. The rain has destroyed most of the road and even with all this rain some areas still had no grass cover. This prompted me to teach about soil conservation and restoration. Some of the lessons I taught this term included: types of soil; uses of soil in connection to livelihoods; threats and solutions to soil loss; and measuring soil erosion in the schoolyard.

By the end of the term, schools had started soil conservation projects. Naiperere Primary School collected rocks to fill gullies on the road and Kimanjo Primary School started to collect seeds to help regenerate bare areas of their schoolyard. We are hoping that more soil conservation and restoration projects will continue this year. ■

WELCOME TO TONY MAINA AND COSMAS NZOMO

Morgan Pecora-Saipe

Mpala Research Centre welcomes two additional members to its management team-Tony Maina and Cosmas Nzomo. Tony works with the finance team as an accountant and Cosmas is in charge of our increasing numbers of accommodations and reservations. Tony and Cosmas contribute greatly to the successful running of the expanding research centre.

Tony joins us from Nanyuki, with over 8 years of experience as an accountant in the financial field across diverse industries ranging from construction, horticulture, retail and financial institutions. Prior to joining Mpala, Tony worked with MAD Ltd., a financial management consulting firm based in Nanyuki. Tony has enjoyed the move to the friendly and supportive Mpala family. He was excited to join Mpala to support the beneficial relationship Mpala holds with the community through education, research and health facilities. Tony is “glad being part of such an institution and giving back to the community”.



Tony Maina.

Photo by Morgan Pecora-Saipe.

Cosmas hails from Nakuru County but has lived in Nanyuki for the last 2 years where he worked at the Sportsman’s Arms Hotel. Cosmas has brought his experience in reservations, guest relations, communications and customer care to Mpala’s management. In his free time, Cosmas enjoys watching movies, socializing, reading books and listening to music. At Mpala, Cosmas is excited to support the culture of co-existence among locals, foreign researchers and domestic and wild animals.



Cosmas Nzomo.

Photo by Morgan Pecora-Saipe.

Mpala also provides the opportunity to catch a glimpse of wildlife up close! Cosmas and Tony have already had a taste of Mpala’s wildlife. Cosmas had a rare sighting of wild dogs, while Tony has seen a variety of wildlife that he’d only experienced before in books and documentaries. Tony is looking forward to seeing his first herd of buffaloes and a pride of lions.

A warm welcome to Tony and Cosmas! ■

MPALA-AT-A-GLANCE

Farewells and Welcomes

• Mpala says farewell to Lacey Hughey, project co-manager with Jen Guyton of the Hippopotamus and River Ecology Project. Lacey will be missed, but we also welcome Ian Warrington, who has taken over the position for the next year. The project is looking forward to tracking individual hippos in the coming months.

Courses & Student Groups

• In January, Irby Lovette, a professor at Cornell University taught a three-week field course in tropical biology and animal behavior to 24 undergraduates. The

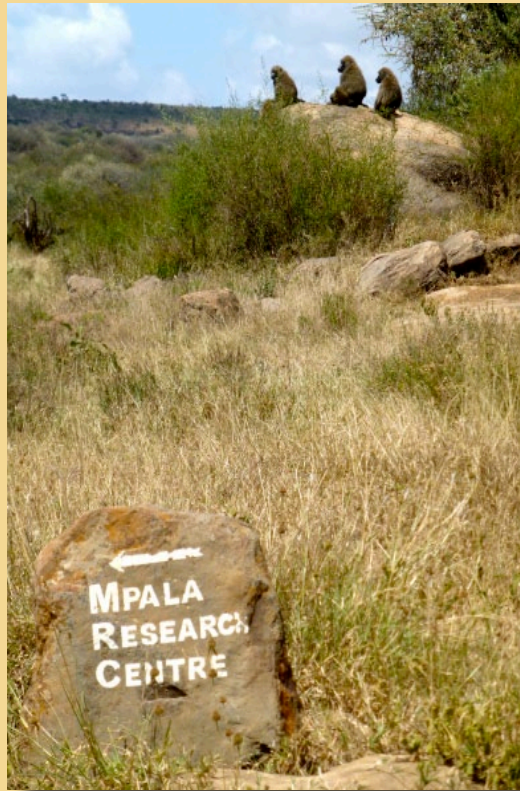


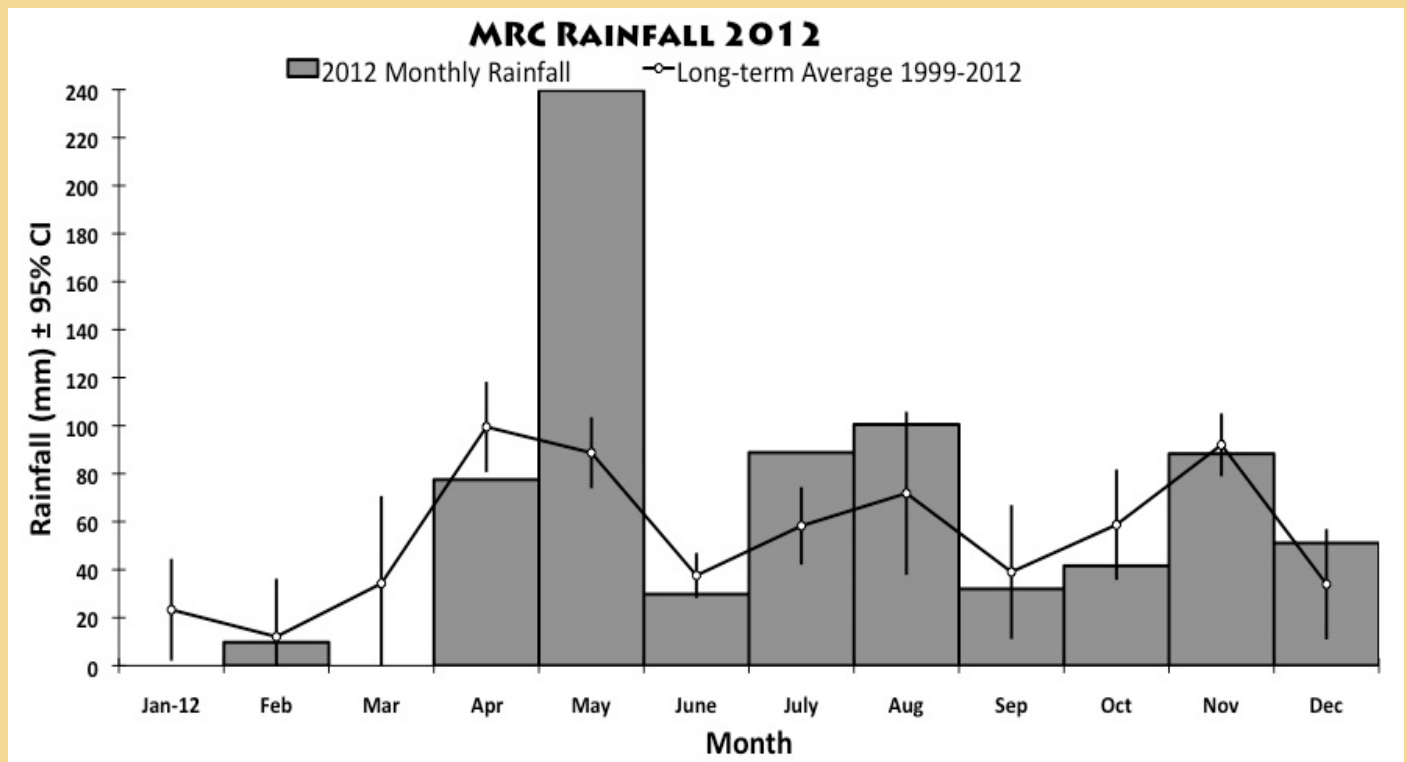
Photo by Elyse DeFranco.

class had a total of eleven leopard sightings!

• On January 26th, Mpala welcomed 12 students and 2 teachers from Daraja Academy to join researchers from UHURU, the Hippopotamus and River Ecology, and the Rodent-Borne Disease projects out in the field for the morning.

• Wilson Nderitu and Morgan Pecora-Saibe hosted the Shiloh Naibor Primary School's Conservation Club on October 27, 2012. For many of the 27 students, they experienced their first hippo sighting! ■

MPALA WEATHER CORNER



FICKLE WATERS OF THE EWASO

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As the river ripples north through Mpala and toward Samburu from its headwaters on Mount Kenya, it traverses flower farms, livestock ranches, and shambas (subsistence farms), becoming swifter, deeper, and heavy with silt. In recent years, overgrazing and overdrawing have impacted the river, as human populations – and their needs – grow. The effects of overgrazing-induced erosion have been great: as cattle and goats strip the riverbanks of vegetation that would otherwise soak up runoff, flooding

Despite being biologically bound to surface water, hippos aren't great swimmers – their aquatic antics rely on a twinkle-toed dance along the river floor. So, when the waters rise, they head for shallower areas. Though we've occasionally seen one or two lounging around other shallow areas of the river during these times, we haven't been able to account for all that call the Hippo Pool home. This year, we'll use GPS to track their movements, elucidating the strategies that they use to cope with these changes.



The Ewaso Ng'iro River passing through Samburu. Photo by Jen Guyton.

during the wet season becomes increasingly common. And when it's dry, people need more water – leading to lower and lower dry-season water levels. Consequently, in our parts, the river is becoming evermore temperamental.

This time last year the river was in high flood, lapping at the underside of our bridge and driving hippos to peregrinations under the mid-day sun, kilometers away from the floodwaters. We're trying to figure out where the hippos go when they too tire of the river's unruliness. If you visit the Mpala Hippo Pool – a bend in the river where hippos hang out – shortly after the clouds have enveloped Mount Kenya and inundated its slopes with rain, you're likely to find our population of twenty or so amphibious friends reduced to no more than a handful.

A researcher recently told me a story that affirmed my notions of the river's unpredictability. "I saw a hippo once, way up here on this hill," she told me as we passed through the new Ranch gate. "It was a tiny baby, and it was following an elephant. They were on the road and as I drove up, the elephant looked at me, and the tiny hippo looked at me, and then it looked at the elephant with surprise, as if thinking, 'This isn't my mom!' Then it turned and trundled back toward the river."

The challenge and charm of ecological research is nature's caprice. As we move forward on this three-year study of the Ewaso's "river horses", I don't doubt that these waters will keep surprising us. ■

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LEARNING BY DOING: ANOTHER WAY OF TEACHING CONSERVATION

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Teachers practicing the game "African Predator Sneak Attack". Photo by Nancy Rubenstein.

Thanks to funding from Princeton Environmental Institute's 'Sustainable Development Grand Challenge' and the Graham Family Foundation, we brought together over 32 conservation educators and head teachers for a two-day workshop on experiential learning at the Mpala campsite in early November 2012. My husband, Dr. Dan Rubenstein, Sammy Njoroge, Laikipia Wildlife Forum's environmental education officer, and I, ran the workshop. We had tremendous assistance from Morgan Pecora-Saipe, Mpala's current Princeton-in-Africa fellow, and Wilson Nderitu, head field assistant at Mpala and club coordinator.

For two days we explored different learning styles and discussed how to quantify biodiversity, make plant collections and build a sundial. Working in small groups, the teachers were challenged to write lesson plans that incorporated the books and games discussed during the workshop. Teachers became students in order to practice leading the activities and to experience them from a different perspective.

The Graham Family Foundation has granted small financial incentives to the clubs that

promote this new style of learning. Of the 32 educators and members of the NKCCs, it remains to be seen how much was internalized from the workshop and how the grants will be put to use, but they left excited and motivated.



Teachers discussing books in small groups. Photo by Nancy Rubenstein.

To us it seems clear: involving students in their learning is a much more effective way of teaching than the rote learning style most Kenyan students are used to. If we want students to become more aware of the natural world around them and their role in it, making the lessons interesting and fun is the means to achieving that goal, and investing in our local teachers and their schools is well worth the effort. ■

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The workshop participants gather on their last day. Photo by Nancy Rubenstein.

MPALA PUBLICATIONS 2012

Good, S.P., K. Soderberg, L. Wang, K.K. Caylor. 2012. Uncertainties in the assessment of the isotopic composition of surface fluxes: A direct comparison of techniques using laser-based water vapor isotope analyzers. *Journal of Geophysical Research* 117 (D15), D15301.

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*An overlook from the river road.
Photo by Elyse DeFranco.*



MPALA WILD DOG CLIMBS MT. KENYA!

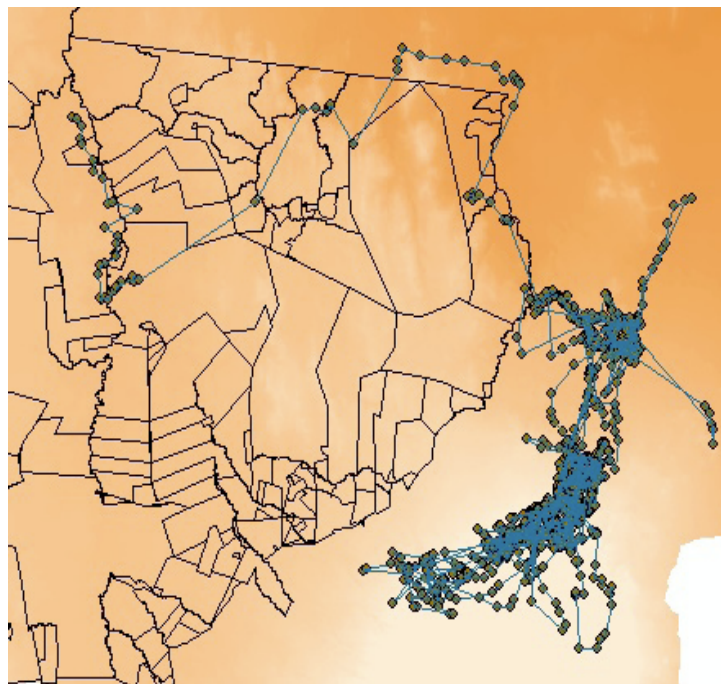
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to identify important connections in the landscape, as well as geographical features which block wild dog movement. Part of this work involves tracking young wild dogs as they seek mates and new territories.

Wild dog male 111 was born on Mukenya in October 2010, one of a litter of 11 pups. His pack, the Loisaba Pack, spends much of its time on Mpala. By March 2012 he was old enough to leave his pack and seek his own territory, so we fitted him with a GPS collar to track his movements. Two weeks later he disappeared. We used an aeroplane to search widely for him, without success. Then, in September 2012 we were sent a photograph of a group of wild dogs sighted near Rutundu on Mount Kenya. One of the animals was 111! Project friend and pilot Andrew Francombe flew to the mountain to investigate and with some rather risky aerial manoeuvring was able to download data from the GPS collar. The results are spectacular, showing how 111 crossed rivers, roads, fences and farmland to reach his

destination. His new pack is now residing on the moorlands of Mount Kenya, some of the most high-altitude wild dogs in Africa. ■

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The route WDM111 took to reach the moorlands of Mt. Kenya (bottom right) from Mpala (top left). Image by Rosie Woodroffe.

MPALA WILDLIFE FOUNDATION & MPALA RESEARCH TRUST

Founder:

George Small (1921-2002)

Mpala Conservancy Manager:

Michael Littlewood

Contact Information

(USA)

Kay Berney

kberney@mpala.org

Mpala Wildlife Foundation Trustees:

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Daniel Rubenstein

Mpala Wildlife Foundation

PO Box 137

Riderwood, MD 21139-0137

USA

(Kenya)

Tel: 254-62-32758

Executive Director:

Margaret Kinnaird, PhD

mkinnaid@mpala.org

Mpala Mobile Clinic Coordinator:

Shannon Wreford-Smith

shanni@wananchi.com

Mpala Research Trust

P.O. Box 555, Nanyuki

Kenya

www.mpala.org

Newsletter Editing and Design

Morgan Pecora-Saipe

Jen Guyton