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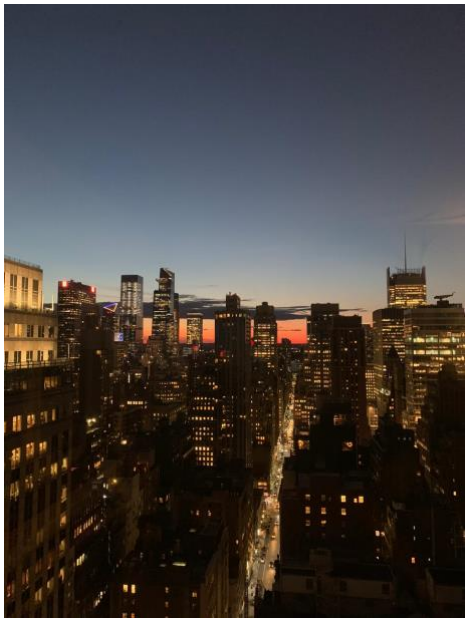
MEP September 2019 Report

The Mara River photographed in September by MEP rangers on patrol.

GENERAL

Toward the end of this month we have experienced scattered rain showers and the Mara River is in full flow. The Mau team reports lots of rain there as well. This month both Marc and Jake did a tour of nine cities in 12 days in the United States of America to raise funds and awareness about MEP. At each city we are able to present the new MEP update video and a new PowerPoint presentation which Jake built over the last month. The trip was a great success and we hope to make it an annual event. We learned a lot for next time, and we have started building an excellent network of support in America. We made sure to invite supporters back to MEP HQ in the Mara to see our work firsthand.



A night view of NYC where Marc and Jake spent three days during their USA tour.

SECURITY & ANTI-POACHING

In September, the Sheldrick Wildlife Trust Mau De-Snaring Unit rangers along with Kenya Wildlife Service arrested a bushmeat poacher and confiscated 11 poison arrows in the Mau Forest. They also destroyed six kilns, four sacks of charcoal, one pit saw and removed 61 snares. MEP rangers also confiscated 6,410 cedar posts in Loita and 10 podo posts. In total, the Transmara team destroyed 36 kilns in the Nyakweri Forest and 16 kilns elsewhere along with three sacks of charcoal.

Cedar posts recovered on September 10.

Snares recovered on September 24.

A kiln destroyed on September 12 in the Mau Forest.

MEP also assisted the Sheldrick Wildlife Trust Mobile Vet Unit in two elephant treatments in September. The first was a treatment of a young calf and the second was a large bull treated in Mosiro with various arrow injuries. He was sighted by MEP during a routine aerial patrol of our collared elephant Napoleon.

The injured calf treated by KWS Vet Dr. Limo from the SWT Mara Mobile Vet Unit. MEP assisted in the air and on the ground with this treatment.

A bull elephant being treated by KWS Vet Dr. Limo on September 20 from HEC wounds.

Human-Elephant Conflict Report:

As the crop season is over, we have seen a decrease in crop related HEC incidents with four in the month of September.

Crop damage from an HEC incident on September 20.

Teddy Kinyanjui, owner of Seedballs Kenya and the inventor of seed balls has teamed up with PhD researcher Nathan Hahn to invent a new farm based HEC deterrent. Nathan will be categorizing the effect of our HEC tool kit and Teddy and Nathan have been working together since the original HEC drone trainings in 2014. This time they are looking at developing a low cost and easy to replicate conflict prevention and resolution tool that are necessary to build up the tolerance of local farmers who live near elephants. This will reduce mortality and treatment costs of elephants hit with spears and arrows as well as economic loss experienced by farmers. Teddy and Nathan have re-purposed the seed balls technology to make a larger pepper and charcoal dust ball that disintegrates in a cloud of dust. The delivery tool is a modernized roman infantry staff sling. They have already recorded throwing the pepper balls over 100 meters. This new technology is important to trial while developing our best practices for the HEC toolkit.

Ranger & Vehicle Tracking:

In September, MEP rangers covered a distance of 2,044 km on foot, 10,800 km by car and 464 km on motorbike. Siana team covered the largest distance on foot this month at 372 km from their patrol in Siana and parts of Olkinyei Conservancy.

Helicopter:

This month we managed to untwist Maximus' collar in the Mau which in many ways is more difficult than a collaring because you have to single out the collared animal and then dart and not lose him in the thick forest. The Karen Blixen Camp Trust helicopter was key in doing this.

The KBCT helicopter which was vital for the Maximus collaring operation.

This month we resumed our aerial monitoring of the collared elephants. During this time, we identified an injured elephant in Napolean's herd, and we recorded that Lempiris is in a mega herd of at least 80 individuals.

The injured bull spotted with Napolean from the KBCT helicopter.

As mentioned previously, we were also able to deploy the KWS vet Dr. Limo to Mosiro with the helicopter to treat an injured elephant. We pulled an arrow out of him and expect a full recovery.

COMMUNICATIONS & FUNDRAISING

The big fundraising news for September is that MEP CEO Marc Goss and Director of Research and Conservation Dr. Jake Wall embarked on a tour of the US meeting with key current supporters of Mara Elephant Project and initiating new relationships. We would like to personally thank Lori Price for all of her hard work to put on an exceptional dinner party in Washington DC. We also would like to thank Vulcan, Google, Wildlife Conservation Network and Terra Conservation for hosting us. Finally, a special thank you to the Angama Foundation who donated The Greatest Maasai Mara wildlife photographs for two events in Texas and for Turk Pipkin from The Nobelity Project who hosted us in Austin, Texas and Khashana Travel in Dallas, Texas. We think this two-week trip will be a great way for MEP to expand our organization and fulfill some fundraising objectives.

Marc, Jake and Siekick Foundation Executive Director Brian Kearney-Grieve at Union Station in NYC.

Speaking of The Greatest Maasai Mara photo competition, MEP had some amazing entries during the month of September. Thank you to Stephen Underwood, Pareet Shah, Arav Shah, Joseph Messenbaugh, Margaret Bishop, Will Fortescue, Romit Shah, Ali Alshamsi, Yaron Schmid, Pravir Patel, Lennart Hessel, Bharath Yuvraj, Viral Shah and Jeff Schultes for supporting MEP with your entries.

A GMM entry supporting MEP from Margaret Bishop.

The Indianapolis Zoo hosted MEP Trustee Trey Fehsenfeld on September 21 for a presentation to their wildlife conservation club. All of the teens and their families were really engaged with the presentation by Trey and we continue to enjoy doing partnership work with organizations like the Indy Zoo that have been generous enough to support our work.

MEP Trustee Trey Fehsenfeld presenting at the Indy Zoo.

Emmy winning videographer Matt Mays and Bob Poole visited MEP in August to update the MEP Overview Video newly titled *Conflict to Co-Existence*. You will find this new video on our website. This also resulted in an updated MEP pamphlet to reflect an updated look and strategy for the organization.

We received several key individual donations in September to MEP. Thank you to the Hubbard Family Foundation, Jim & Mary Ann Rogers, Pranhitha Reddy and Steven Hahn, Mark Miles, Angela Crisler and Nelson Leong all for donating. We also received a check from the Intel Foundation which is donating a percentage of the receipt of sales of their staff range of clothing and other items. We collected a total of $55,745 in the month of September in individual donations and another $1,652 on Facebook thanks to Rita Cabases' birthday fundraiser. We also received a matching donation of $7,000 from MEP Trustee Beatrice Karanja which was in celebration of Max's efforts in August to raise money for MEP rangers. Max's fundraiser along with donations collected for World Ranger Day and World Elephant Day means MEP has raised $28,000!

RESEARCH

Director's Update:

At the beginning of the month I attended a census planning meeting to plan three upcoming elephant censuses: Nyakweri Forest Oct 2019, Maasai Mara May 2020 and Mau Forest 2020. Both the Mau and Nyakweri forest censuses will be dung counts as aerial counts are not feasible. The Mara count will be done by air. MEP will participate in all three by contributing ground teams to walk transects during the dung counts and will use the Karen Blixen Camp Trust 5Y-MEP to assist the aerial census, especially those areas in the hills that are more challenging with a fixed wing. I will also assist in report writing and final count outputs.

Shortly after the census meeting, I hosted Dr. Jared Stabach from the Smithsonian Institute Conservation Biology programme for five days to kick off the first meeting of the One Mara Research Hub corridors working group. We looked at available wildebeest and elephant movement data along with infrastructure layers on fences and roads to plan an analytical approach to understand the effects of fencing on wildlife movement. Jared has also secured U.S. government resources to acquire satellite imagery across the Greater Mara Ecosystem that will aid our understanding of the human footprint in particular.

In September the new landDx (Landscape Dynamics) database went live on the Microsoft Azure cloud thanks to a grant from the AI4Earth programme and from the Esri Conservation Programme. The database is designed to track changes in landscape features such as fences over time. The data hosted in landDx will be made available to the One Mara Research Hub collaborators. MEP has worked to contribute several data layers already and we will continue to use the Njia mobile app for data collection on fencing and roads.

In mid-September Marc and I hosted Frank and Saba from Save the Elephants for a weekend dedicated to working on the STE-MEP agreement relating to data sharing and laying out a framework for continued close collaboration between the organizations and which we are very excited about.

In late September we started streaming data from approximately 30 wildebeest and zebra that have been collared by Grant Hopcraft in the Serengeti. These data now appear on the MEP EarthRanger system alongside our elephants and rangers. Although viewable using the

Serengeti Tracker app developed by Grant, we wanted to be able to overlay the elephant and wildebeest data together and give insight into their contemporaneous use of space. One theory is that elephants high-tail it out of the Mara when the migration arrives and we want to test that theory quantitatively.

Tracking Manager's Update:

We had several collared elephants in settlement areas or crop raiding during the month of September. Shorty was crop raiding daily in Tanzania and Hugo had a night inside farms. Ivy began the month of September in conservancy areas but was soon crop raiding at night. There were two collared elephants spotted in mega herds in September. Namunyak was spotted by MEP rangers on the 8th with a herd of more than 50. Lempiris was also sighted during an aerial patrol with a group of more than 70.

MEP collared elephant Kiambi was sighted by MEP rangers together with Chelsea. Caroline was also together with Chelsea while Kegol spent the reporting period with a group of four bulls, one including Fred. Hannibal and Napolean also spent the reporting period together.

A great photo of Kiambi taken by MEP rangers while out on patrol.

Unfortunately, collared elephant Limo's collar dropped. MEP rangers found the collar and we are discussing what happened internally to this collar.

Collared elephant Limo.

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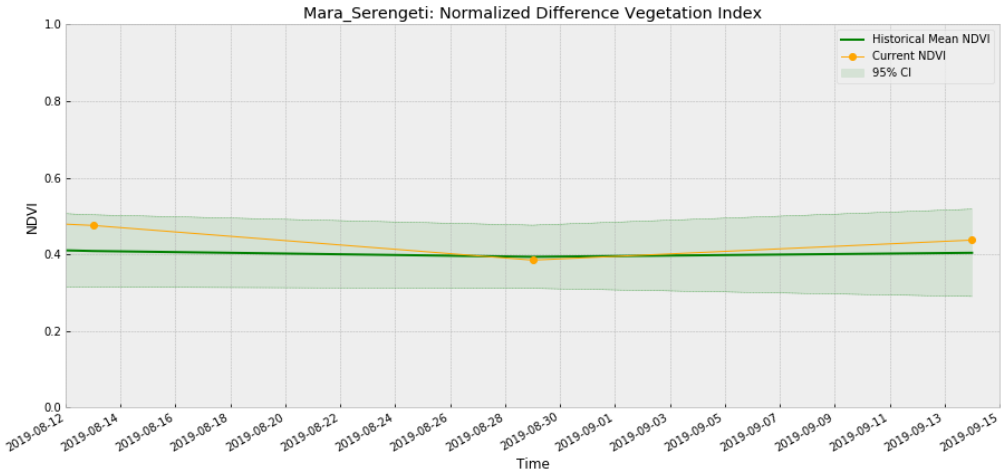
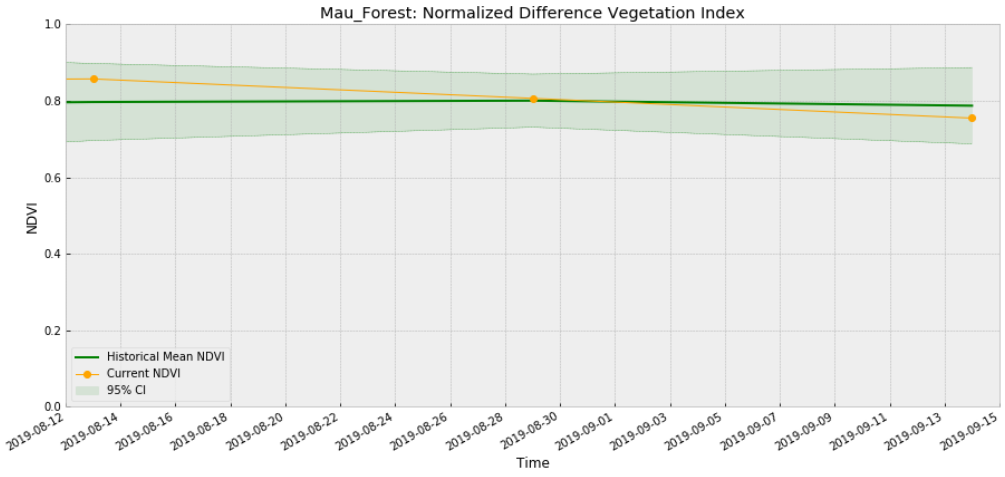
ENVIRONMENT: NDVI

Normalized Difference Vegetation Index (NDVI) is a measure of plant photosynthetic activity. Higher NDVI indicates the plant is greener. The orange trendline shows the current value while the green area shows the 95% distribution of values centered around the green trendline from values measured back to February 2000.

NDVI (Maasai Mara):



NDVI (Mau Forest):



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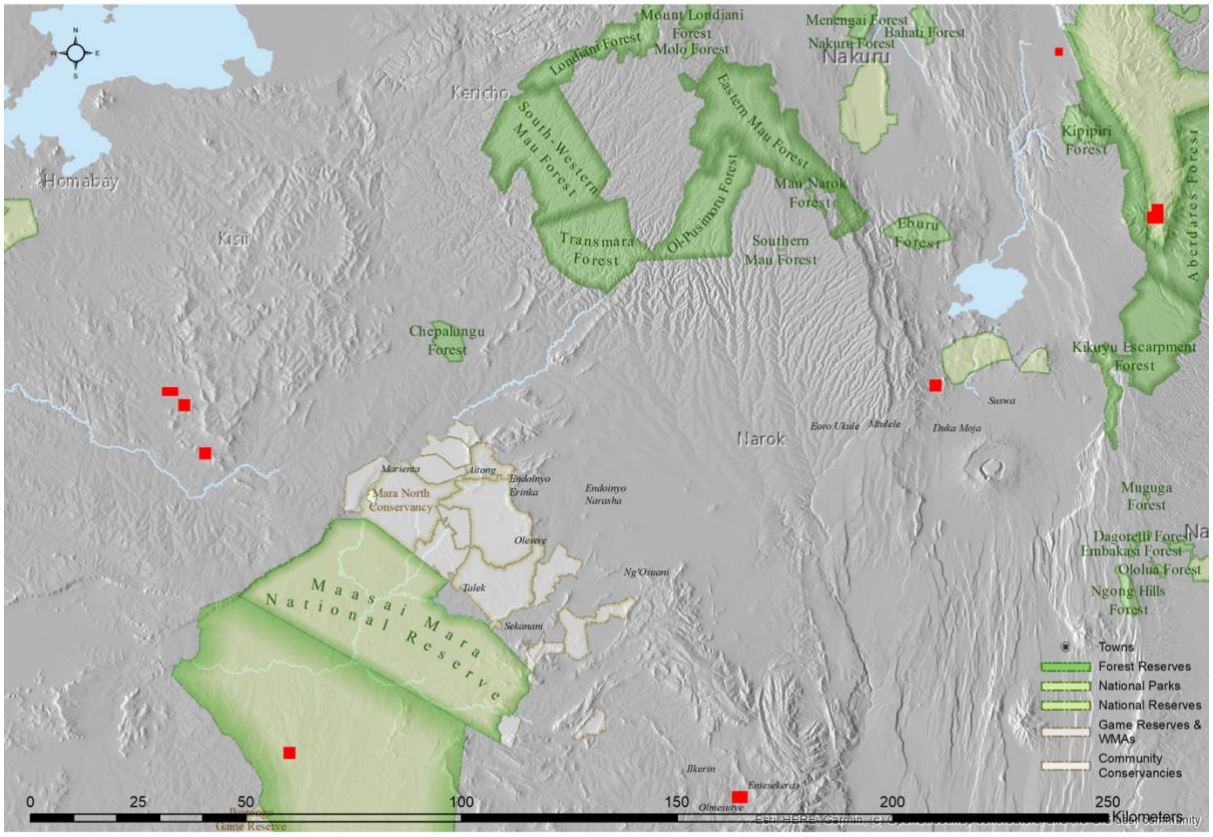
Burn/Fire Areas:



Fire occurrence in August 2019. Red blocks indicate burn areas as measured by NASA's FIRMS dataset. Accessed through Google Earth Engine. The Serengeti had many fires in August but none in the Mara.