MEP November 2021 Report

MEP rangers on patrol in November.

GENERAL

On November 19, alongside Kenya Wildlife Service (KWS) Vet Dr. Limo and the MEP "Echo" ranger unit, KWS, Southern Rift Association of Landowners (SORALO) and MEP collared a female elephant in a herd of over 60 elephants in the Mosiro area. This female elephant was collared in response to an escalating conflict incident in the area. Two days prior, a report came in from the community that a 22-year-old man died as a result of wounds sustained by an elephant. CEO Marc Goss immediately rushed to the scene in the leased helicopter and alongside the MEP "Bravo" and "Echo" ranger units and government partners, they were able to communicate with the local community; however, tensions continued to rise. The teams with Marc's aerial support spent days trying to reduce rising tensions and on November 19 they boiled over when a mob was formed to attack a nearby elephant herd. The rangers and helicopter were used to disperse the mob and collaring an elephant in the herd attacked was the best response to calm the community's nerves and protect the elephant herd under attack.

The newly collared female, "Indy", was supported by the Indianapolis Zoological Society.

The female elephant was collared to increase KWS and MEP's ability to respond to conflict in this area immediately and to understand the connectivity between Mosiro and the Loita Plains. The MEP "Bravo" ranger unit is permanently stationed in this area to protect the newly collared elephant and her herd, and they will work with the community to reduce rising tensions and protect their farms and homes.

SECURITY, ANTI-POACHING & CONFLICT

A total of 33 kg of bushmeat was seized in November and eight total suspects arrested alongside government partners, mostly by the Sheldrick Wildlife Trust (SWT) Mau De-Snaring Units, the Charlie and Golf teams. Pictured below, on the 5th, one suspect was arrested by Golf team with 10 kg of bushmeat, a spear and a panga. On the 7th, one suspect was arrested by Charlie team with 5

kg of bushmeat. On the 25th, the Alpha team arrested two suspects with 16 kg of bushmeat. Finally, on the 29th, two suspects were arrested laying snares by the Charlie team.

There was a total of 54 snares removed in November. Featured below, the Golf team removing 16 snares on November 9 in the Mau Forest. Then, again on the 17th, the team removed seven snares. On the 24th, they removed eight snares and two days later another 10 snares were removed by the Golf team.

In terms of habitat destruction, MEP rangers alongside government partners arrested 63 suspects for habitat destruction activities. This included destroying 37 charcoal kilns and 29 charcoal sacks. Featured is an arrest on the 3rd by the Foxtrot team that included 20 timbers. On the 11th, there were 14 bags of charcoal destroyed by the SWT Mau De-Snaring Unit "Charlie" team. The next day, the SWT Mau De-Snaring Unit "Golf" team arrested two suspects and destroyed five active kilns. On the 16th, the Golf team destroyed five active kilns, then on the 25th the Foxtrot team recovered 30 logs and arrested two suspects alongside government partners cutting down the Loita Forest's indigenous trees and recovered a power saw.

KWS arrested one suspect with six pieces of elephant tusk weighing 14.5 kg on November 16 based on MEP intelligence alongside the Busia investigation team. In total, in November, MEP rangers covered a distance of 1,002 km on foot, 6,392 km by car in GME and 1,697 km on motorbike in the GME. In Shimba Hills, MES rangers covered a distance of 89 km on foot and 1,639 km on a motorbike.

HELICOPTER

The MEP leased helicopter was used for the collaring operation in November. It was also used to provide aerial reconnaissance in the Mau Forest.

The helicopter on the November 19 collaring operation. On November 6, smoke noted inside the Mau Forest.

KWS and MEP collared elephant Fred had a low-speed alert, so the helicopter was used to get an aerial visual to ensure his safety. Luckily, he was in good health alongside Kegol on November 29.

COMMUNICATIONS & FUNDRAISING

The Ultra MARAthon is coming up on December 4 and MEP has a relay team participating and is providing security along the race route. We are also benefitting from proceeds from the race alongside Mara conservancy rangers and the Africa Mission Services maternity clinic. We look forward to updating you more on the success of this race in December.

The MEP ranger relay team warming up to train for the Ultra MARAthon taking place on December 4.

The Angama Foundation has generously agreed to support the protection of collared elephant Fitz, who they originally supported in 2019. He is in need of a new collar, which will be fitted soon, and their new support will continue his protection for another three years. The Indianapolis Zoological Society supported the protection of a newly collared female elephant on November 19, which was mentioned above, and named her "Indy". Finally, Asilia Africa and Asilia Giving generously supported the MEP LTM team with a $2,500 gift and a commitment to support even more in 2022.

MEP celebrated #GivingTuesday and we were blown away by the support people showed our organization. We thank everyone for donating on this big day of giving, and helping MEP continue protecting elephants and their habitats into the next 10 years of operation. Better Safaris has launched their new website, which includes a safari that 100% supports MEP. We look forward to growing this partnership in the new year. MEP launched a Bonfire merchandise fundraiser on November 16 that runs for a month. It features a newly designed MEP t-shirt and for every unit sold, $12 goes back to the organization. As of December 1, MEP has sold 18 units and netted $186.48.

MEP was featured in the December issue of National Geographic magazine, which was released online and to subscribers in late November. CEO Marc Goss and the MEP's teams efforts in the Nyakweri Forest alongside our partners was featured in the article "Beyond what tourists see, a rich Maasai culture with many challenges". Additionally, a map using data from the MEP Research Department was featured in the "The Unlikely King" article.

The photo featured in National Geographic's December issue by Charlie Hamilton James.

MEP's Conservation Officer Wilson Sairowua attended an outreach workshop for the movie *The Elephant Queen*. While attending the conference, Wilson was able to participate in discussions and had his first viewing of *The Elephant Queen*, which is being shown all over Kenya right now in a mobile cinema unit. The mobile cinema unit and engagement team will be visiting 10 schools in the Mara by the first of the year and plan to show the film and engage the children in activities to nurture pride in Kenya's wildlife. MEP is a proud partner of this initiative, and we look forward to participating more in January.

The Mobile Cinema unit. Wilson presenting at The Elephant Queen conference.

In November, we were delighted to host two guests. The first was Jordan Steward communications manager for EarthRanger. EarthRanger is a crucial partner for MEP and showing Jordan firsthand the software in action was a great way to continue communicating the importance of technology in conservation. We were also excited to host Holly Budge, co-founder of World Female Ranger Day and founder of How Many Elephants. While at MEP, Holly embedded with the SWT Mau De-Snaring Unit operating in the southwestern portion of the Mau Forest. World Female Ranger Day, celebrated on June 23, was launched last year with the goal to shine a light on female wildlife rangers. MEP was so happy to have Holly join us to see the hard work of our inclusive Kenyan staff firsthand and we look forward to celebrating World Female Ranger Day in 2022 alongside the rest of the world.

Holly and Jordan alongside the LTM Team.

The Nobelity Project has generously supported MEP for several years, so we were delighted to welcome founders Turk and Christy Pipkin for a visit recently. Thank you to the Nobelity Project for their support of MEP over the years.

Turk alongside Vincent from the MEP LTM Team distributing seedballs from Seedballs Kenya.

In November, the Sidekick Foundation, Inc. received $212,825.88 in donations on behalf of Mara Elephant Project. MEP Kenya Trust received $24,454 in donations during the month of November. This included a grant payment from Asilia Africa and Asilia Giving to support MEP's LTM team, a grant from Eden Wildlife Trust and another installment from the Angama Foundation for their 2021 grant; thank you everyone for your support. Thank you to Mary Love, the Marianne H. Halle Animal Support Foundation, Inc., Barbara Magin, Pamela Simons, Peter Farrell, Josephine Wardle, Birgit Henninger, Glynis Burgdorff Family Charitable Fund, Metropoulos Family Foundation, Byrne Whitehead, Bonnie Frownfelter, Donna Barlow, Jack Bleck, David Borecky, Jennifer Denyse, Ellen Jacobson, Donna Korkes, Richard Litkenhaus, Lili Pearson and Kenneth Spitler. We had three Facebook fundraisers in support of MEP; thank you to Frank, Natalie and Julianne for your support.

RESEARCH & CONSERVATION

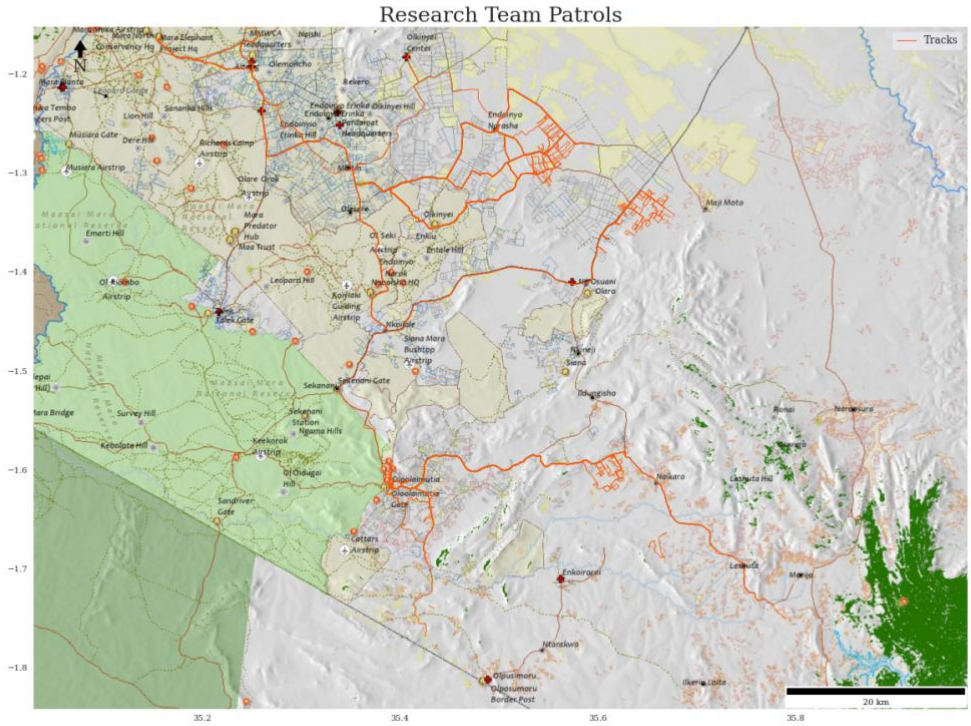
Director's Update

I attended the EarthRanger User Conference in November. The conference brought users together to share their EarthRanger stories and I presented on three new technologies that MEP is developing with partners that are within the EarthRanger ecosystem of software. EarthRanger has now grown to 187 sites in 40 countries. Thank you to EarthRanger for including us in the conference, it was great to be back with everyone to exchange ideas.

Photographed at the conference alongside Senior Conservation Technology Director Jes Lefcourt.

A paper I co-authored was released in November. In the paper, "Risk perception and tolerance shape variation in agricultural use for a transboundary elephant population", it was discovered that elephants are balancing the costs and benefits of crop raiding both spontaneously and

seasonally. The study by Colorado State University (CSU), Mara Elephant Project (MEP), Grumeti Fund, Kenya Wildlife Service (KWS), Tanzania Wildlife Research Institute (TAWIRI), and Save the Elephants (STE), was published in the ***Journal of Animal Ecology***.



Movements (orange tracks) of MEP's three field assistants during November. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our Njia app. They recorded 183 km of fences and 87 LCC points in November.

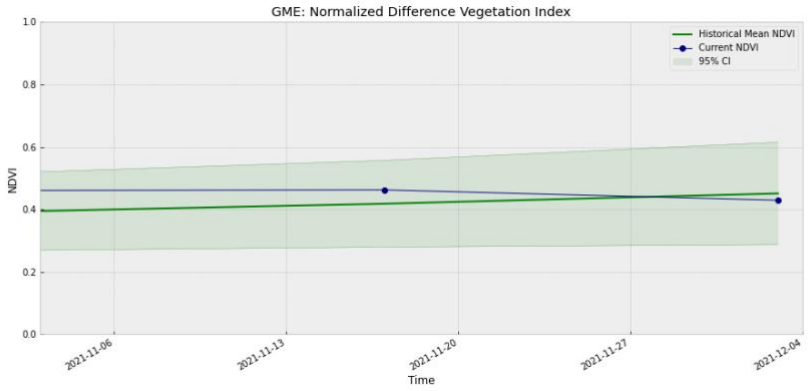
Year	Month	Electric	Other	Wire	De-fenced	Total (kms)
2019	November	48.27	-	18.35		66.62
2019	December	81	-	59		140
2020	January	111.16	4.64	124.71		240.51
2020	February	101.62	1.17	33.99		136.78
2020	March	48.59	0.14	59.76		108.49
2020	April	19.78	0	10.38		30.16
2020	May	24.75	1.88	41.18		67.81
2020	June	15.19	1.48	107.88		124.55
2020	July	37	-	52.76		89.76
2020	August	60.12	7.52	40.08		107.72
2020	September	126.95	7.15	221.44	15.18	370.72
2020	October	109.05	10.57	218.99	1.78	340.39
2020	November	101.2	24.52	153.12	13.88	292.72
2020	December	62.99	9	190		261.99
2021	January	87.9	19.4	121.09	5.2	233.59
2021	February	79.2	22.9	175	-	277.1

2021	March	20.3	7.4	147.92	8.6	184.22
2021	April	80.2	31.05	96.4	2.3	209.95
2021	May	40.3	23.6	296.5		360.4
2021	June	37	44.8	214.2	2.7	298.7
2021	July	21	33.6	138	63.6	256.2
2021	August	14.03	48.7	159.8	0.44	222.9
2021	September	19.2	34.8	218.1	0.1	272.2
2021	October	21.7	17.9	109.5		149.1
2021	November	5.6	7.9	169.9		183.4
	Total (kms)	1,374.10	360.12	3,178.05	113.78	5,025.98

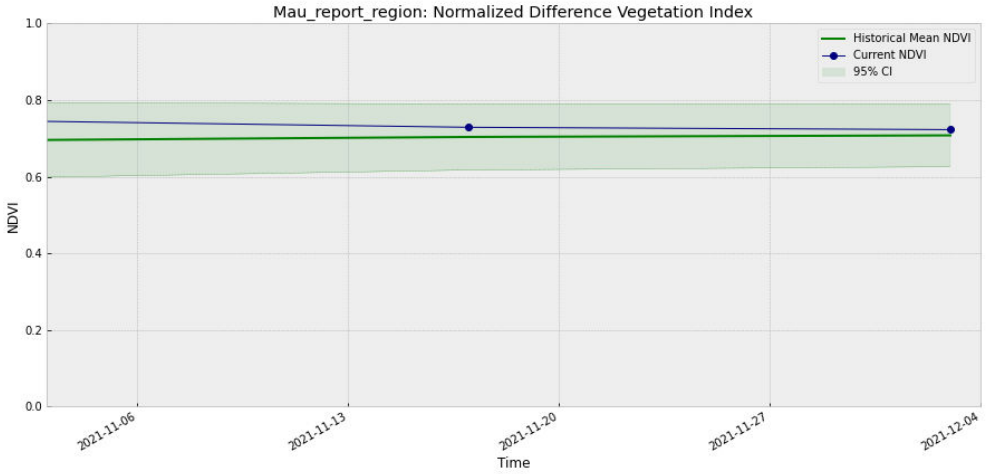
ENVIRONMENT: NDVI

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

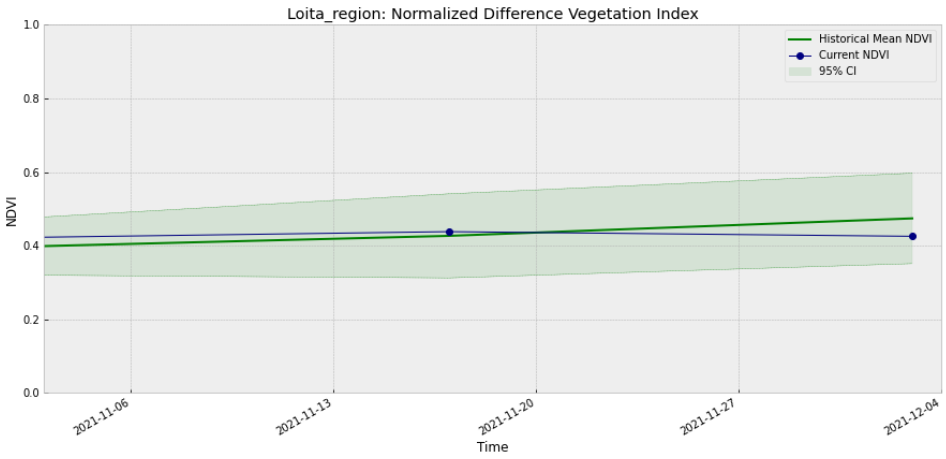
Greater Mara Ecosystem (GME)



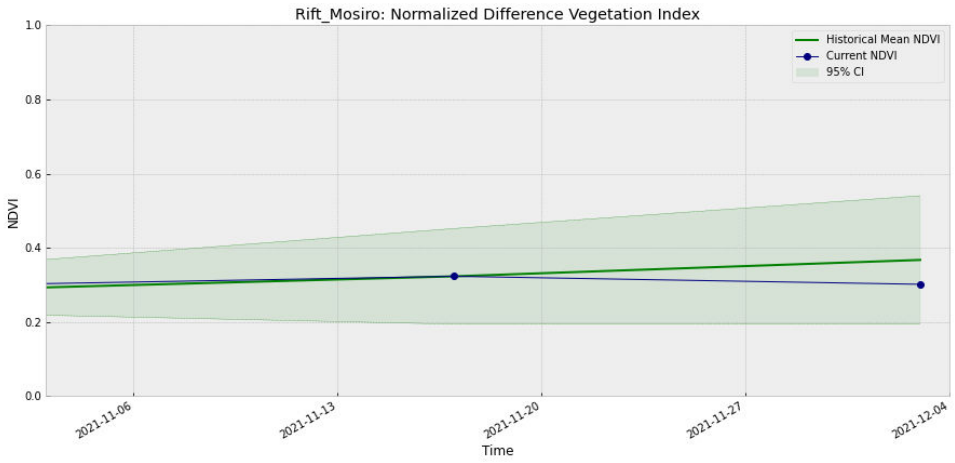
Mau Forest

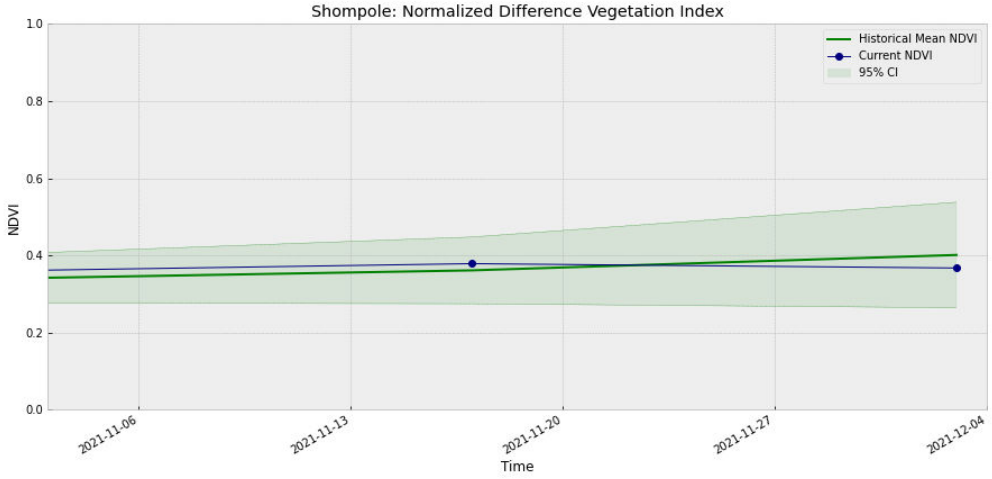


Loita

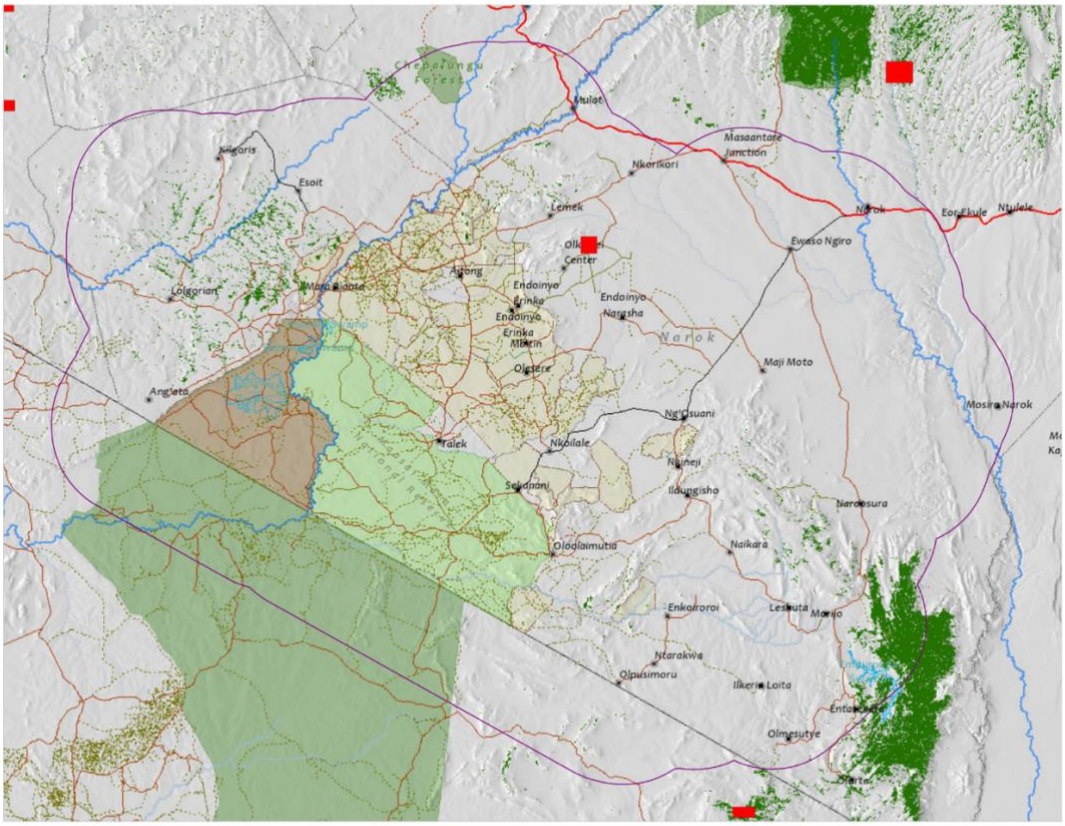


Rift Valley





ENVIRONMENT: Burn/Fire Areas



Red blocks indicate burn areas as measured by NASA's FIRMS dataset during the period November 1, 2021 – December 1, 2021. Accessed through Google Earth Engine.