MEP August 2021 Report

A gorgeous Mara sunset photographed from MEP's campus by Wilson Sairowua.

GENERAL

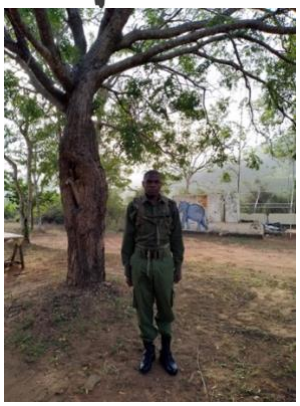
The results from the National Wildlife Census 2021 were released on August 31 by the Kenyan government and their partners Kenya Wildlife Service and Wildlife Research and Training Institute. You can find the results here. MEP took part in the census by providing aerial support for counting elephants and other large mammals in the Greater Mara Ecosystem with a focus on the forests and blocks with more cover.

In August, I took some leave and went to Tanzania to support the Tanzania Wildlife Research Institute (TAWIRI) in their efforts to remove elephant collars in the Ruaha/Rungwa Ecosystem and collar four elephants in the Swagaswaga area. I really enjoyed my time in Tanzania, the landscape was just beautiful, and working with the team of scientists and vets was very exciting. *See photos below.*

SECURITY, ANTI-POACHING & CONFLICT

The MEP / Sheldrick Wildlife Trust Mau De-Snaring Unit remained busy in August protecting the Mau Forest. On August 6, alongside KWS, they arrested one suspect for illegal logging activity inside the forest and later that week another in possession of seven trees that were found at an illegal logging site. On August 18, while on their way to the forest patrol, they came across a truck loaded with timbers and confiscated the timbers and arrested the driver. The next day, the team took part in a community meeting in Lelaitich to introduce themselves to the community, explain the work they are doing inside the forest to protect it and its wildlife as well as address any questions or concerns from the community. It's important that MEP rangers take part in these community meetings as these are their neighbors and fellow Kenyans that they want to support their efforts protecting the Mau Forest. *See photos below.*

MEP has teamed up with the Mwaluganje Elephant Sanctuary (MES) to implement ranger tracking and elephant monitoring. MES is Kenya's first Community Conservancy established in 1991 on the Kenyan coast and forms part of the Shimba Hills Ecosystem alongside the Shimba Hills National Reserve. In 2020, Kenya Wildlife Service (KWS), MEP and MES collared two elephants Dicki and Gina as a first step to understanding conflict, movement between the conservation areas and the southern Tsavo Ranches. MES ranger Suleiman came to MEP in early August to learn how MEP tracks rangers and assets with the EarthRanger system to better monitor elephants in the Shimba Hills Ecosystem with his new Kibo motorbike. Suleiman is currently patrolling with his fellow rangers and KWS to note any elephant or wildlife activity, remove snares or fishing traps and arrest anyone partaking in bushmeat poaching or illegal habitat destruction activities.



MES ranger Suleiman.

On August 7, the team removed one snare and an illegal fishing trap in the Manolo River. The team also noted elephant activity in the area. On August 9, they sighted four elephants on their patrol route, then the next day they arrested one suspect in possession of warthog meat and removed illegal fishing traps in the Manolo River. On August 14, they noted buffalo activity and the next day found an illegal logging and charcoal operation site and elephants nearby. The next day there was more fresh elephant activity as indicated by elephant dung while on patrol. On August 18, they removed more illegal fishing traps in the river and the next day monitored a herd of elephants, one appearing to have an injury. *See photos below.*

All of this data being collected is assembled in MEP's EarthRanger system and will help inform future deployments in this area alongside MES and KWS to increase protection for wildlife inside the conservancy.

In August, MEP rangers covered a distance of 1,518.7 km on foot in the GME and MES rangers covered 151.6 km on foot in Shimba Hills. MEP rangers patrolled 10,562.7 km by car and 2,928.7 km on motorbike in the GME and MES rangers covered a distance of 655.3 km on a motorbike in the Shimba Hills. Overall, in August, MEP rangers alongside KWS arrested one bushmeat poaching suspect and 10 habitat destruction suspects, confiscated one power saw, 20 posts, 338 pieces of timber, removed 14 snares and destroyed 22 kilns.

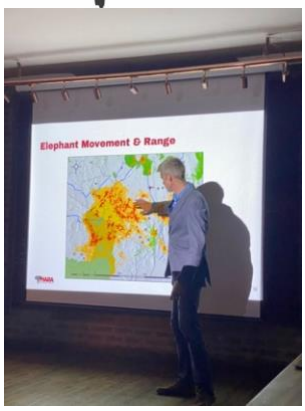
HELICOPTER

The MEP leased helicopter was busy in August. On the 2nd, Marc Goss aerially patrolled the Mau Forest and was joined by photographer Amish Chhagan who later had a photoshoot with the SWT rangers which was supported by Sidekick Foundation. As mentioned in the beginning of the report, from the 8th to the 22nd of the month Marc worked with TAWIRI in Tanzania to remove collars from elephants and collar four elephants supported by TAWIRI. On the 27th of this month, the MEP leased helicopter was used to push a large herd of 70 elephants away from settlements in the Suswa area and collared elephant Napoleon was in this herd. Then, just a few days later on the 30th the helicopter was called in again to push another large herd of 62 elephants out of farms and settlements back into the Nyakweri Forest. There were seven total mitigation efforts for conflict incidents in August.

Marc using the leased helicopter to push a large elephant herd that included collared elephant Napoleon to safety in Suswa.

COMMUNICATIONS & FUNDRAISING

August is always a busy month with World Elephant Day celebrated in August alongside a thankfully busy tourist season in to see the Great Migration. MEP celebrated World Elephant Day on August 12 and sent an email out highlighting the amazing elephants we know through KWS and MEP's collaring program and are getting to know through our long-term monitoring team. Thank you to everyone who supported MEP to celebrate this important day! We had 26 entries in the Greatest Maasai Mara photo competition in August. Thank you to Nirav Shah, Shane McLean, Gurcharan Roopra, Thorsten Hanewald, Tracy Miller, Amish Chhagan, Fahm Bekele, Shiv Kapila, Lakshmi Natarajan, Aarti Shah, Sushil Chauhan, Geetika Singh, Leighton Lum, Romit Shah, Pranav Chadha, Savi Aggarwal, Michael Burton, Stephen Ruppel and Prakash Sujir for supporting MEP with your photographs. We received a tactical backpack from our Amazon Wish List this month, thank you for donating important equipment for our rangers. Dr. Jake Wall was highlighted in a Mongabay article about using technology to revolutionize how rangers works, more specifically our EarthRanger system.



MEP was thrilled by the opportunity to present to the 10 pioneering guests on ROAR AFRICA's Greatest Safari on Earth at Angama Mara. On August 24, MEP's Director of Research and Conservation Dr. Jake Wall presented to the distinguished group about MEP's research and operations all focused on protecting elephants and their habitats in the GME. While there to see the great migration, the group was challenged to learn more about why protecting all wildlife and their wild spaces in the ecosystem is vital to ensuring it's longevity. We'd like to thank ROAR AFRICA for inviting us to be a part of this exciting new venture.

In August, MEP Kenya Trust received the first $15,000 installment of a grant from the Angama Foundation and the first $20,000 installment from a grant from Vulcan totaling $35,000. The Sidekick Foundation, Inc. received a total of $86,187.11 on behalf of MEP in August. We received $5,000 from the Jan Zaitlin Fund, $3,000 from the Kemper Living Trust, Allan Harrington and Carolyn Sunny Shine. We appreciate all of the following donor's support in August: Mr. Mark Paul & Ms. Linda Marie Zaitlin, ROAR Africa, Valerie Doyle, Steven Berger, James Boyd, Gus Constantin, Elizabeth Fray, Edward Giles, Charles Huppuch, Sue Knolle, Carol Olwell, John Pfersdorf, M Virginia Procter, Linda Quest, Denise Schwartz, Katharine Simonds and Marion Stone. Finally, as mentioned previously, the Sidekick Foundation supported photographer Amish Chhagan of Chags Photography to come to MEP for a few days and update some visual assets for our organization to use for marketing and fundraising. Thank you, Amish, for donating your time to MEP.

The MEP LTM team and Conservation Officer Wilson photographed by Amish Chhagan for Chags Photography.

RESEARCH & CONSERVATION

Director's Update

At the start of August, we welcomed Zakariya Hussein as the newest member of MEP. Zak has come to us from the EarthRanger team as a software developer to focus on building data analytics for EarthRanger. We've nicknamed the project 'Conservation Macroscope' and it will help us quickly turn raw data into actionable conservation intelligence. We received generous support from Vulcan Technologies (now AI2) towards Zak's position. Welcome to MEP Zak!

On August 19, our TerraChart application for Android went live on the Google Play Store

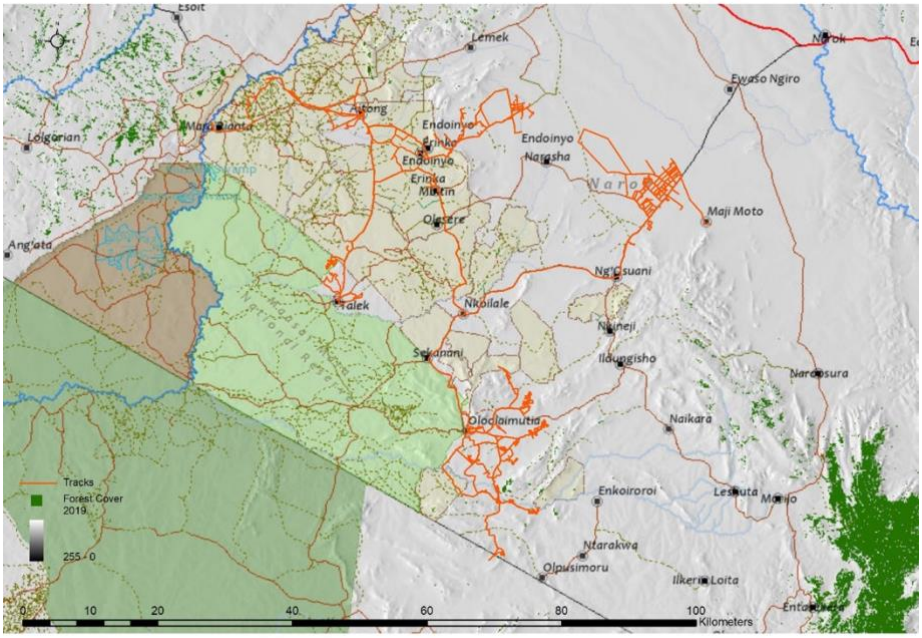
(https://play.google.com/store/apps/details?id=org.maraelephantproject.terrachart). We now have the capacity for collecting geographic points as well as line features that can then be synchronized with the Landscape Dynamics database. We can also configure the app to be used in different regions using custom configuration options. A big thank-you to Ray at Enlivn Solutions for the app development support!

In late August we hosted Save the Elephants at MEP for a 3-day workshop on the use of EarthRanger and other associated tools for data analytics. We really enjoyed our time with the STE team and the cross-organizational exchanges of ideas and knowledge. We look forward to continued partnership with STE.

Wilson presenting to the STE team at MEP during the three-day training.

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

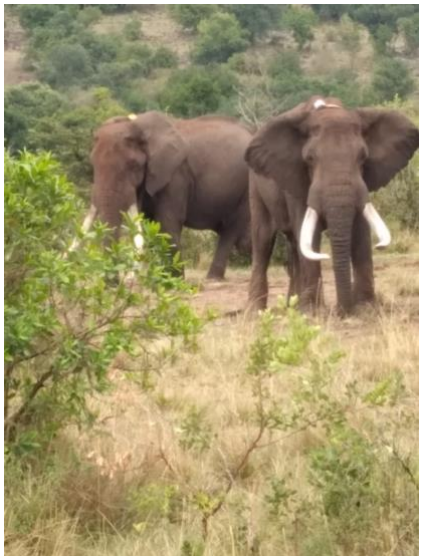
2021	June	37	44.8	214.2	2.7	298.7
2021	July	21	33.6	138	63.6	256.2
2021	August	14.03	48.7	159.8	0.44	222.9
	Total (kms)	1,327.60	299.52	2,680.55	113.68	4,421.28



Movements (orange tracks) of MEP's three field assistants during August. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our Njia app. They recorded 222.9 km of fences and 34 LCC points in August.

Tracking Manager's Update

The Mara Elephant Project long-term monitoring (LTM) team was researching a herd of elephants in the field that took a break to bathe and drink from the iconic Mara River. They captured some amazing shots on August 4 of this herd enjoying the refreshing river.

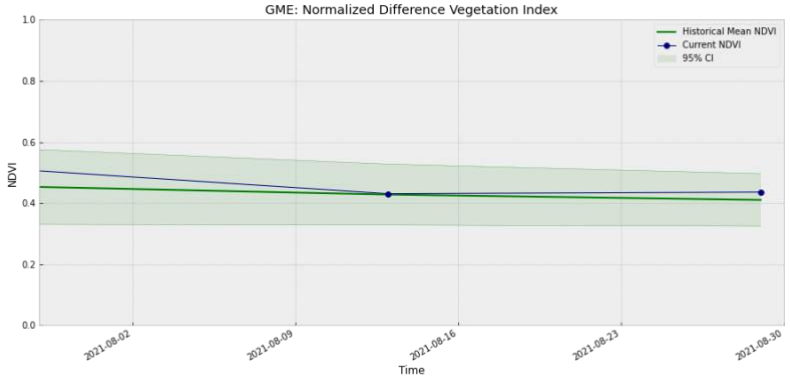


If there ever was a bromance for the ages, KWS and MEP's two collared elephants Fred and Kegol would be contenders. These two bull elephants are often found together in conservancies or neighboring farmland in the Maasai Mara. Both impressively large males, they are estimated to be around the age of 45 years old. Fred was collared first in February 2013 and Kegol in March 2015. They often crop raid neighboring farms to the Mara River and Fred is known to visit MEP headquarters on occasion. On August 9, the bromance duo was spotted by MEP rangers while on patrol in Oloisukut Conservancy and later that week Kegol was monitored alone by another MEP ranger unit.

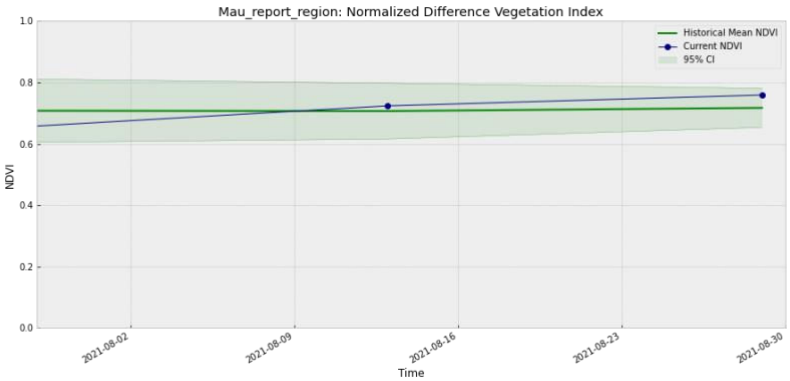
ENVIRONMENT: NDVI

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.

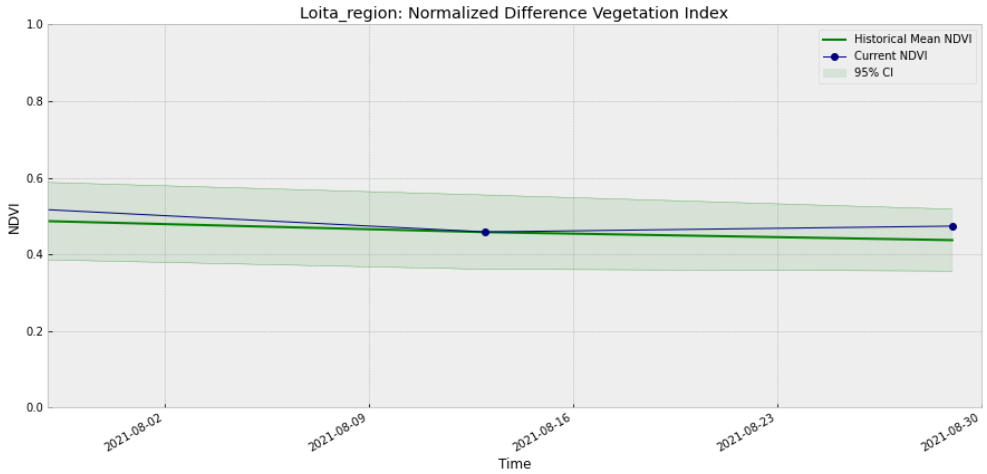
Greater Mara Ecosystem (GME)



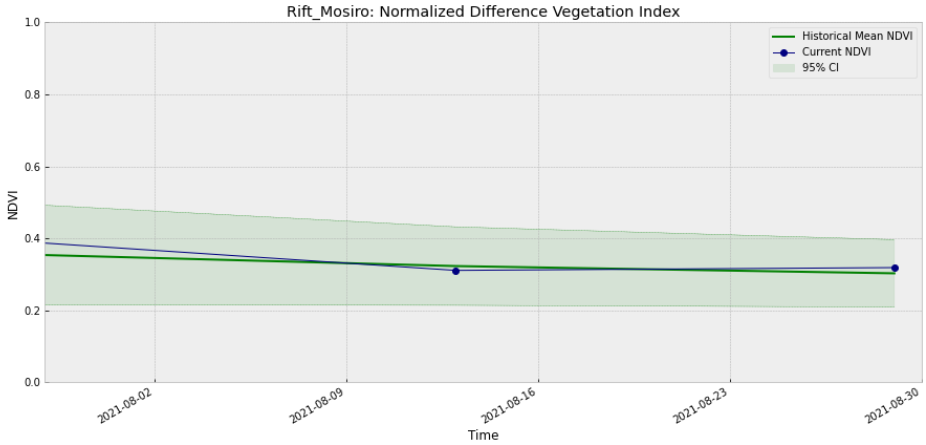
Mau Forest

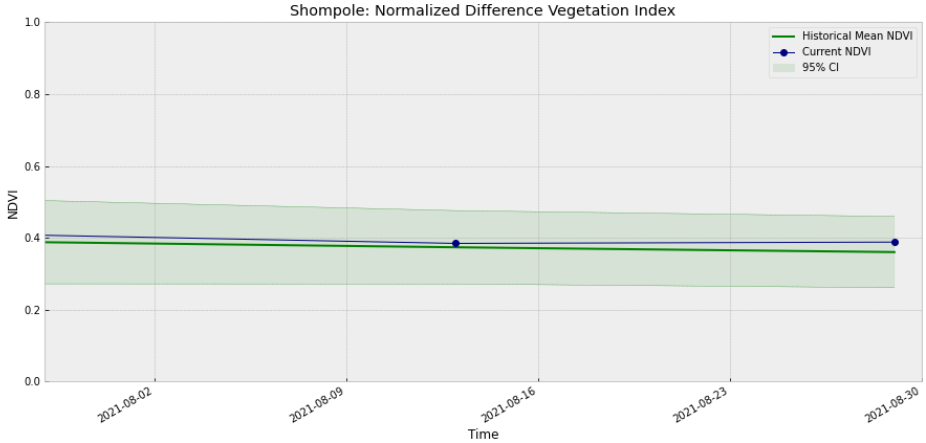


Loita

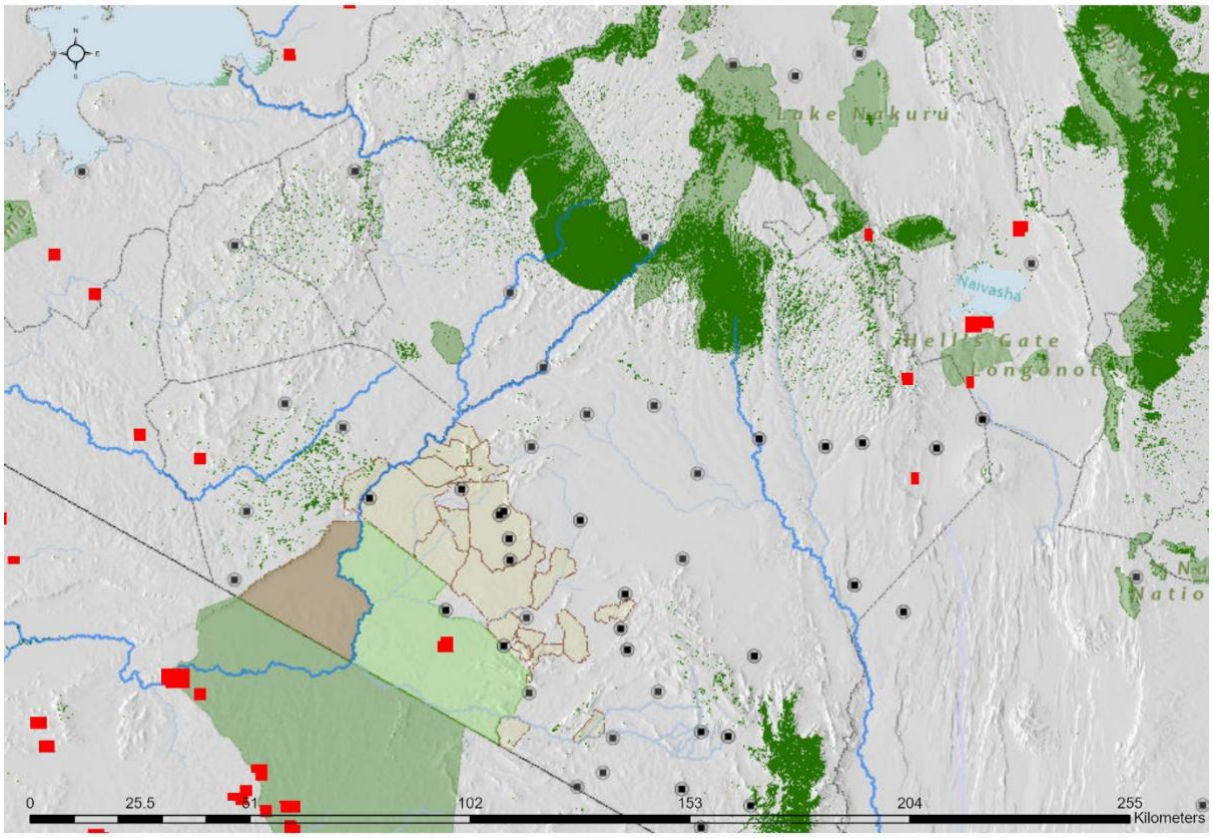


Rift Valley





ENVIRONMENT: Burn/Fire Areas



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