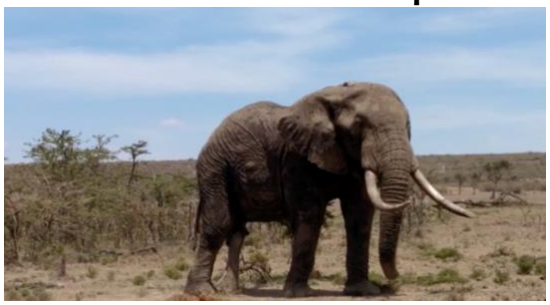
MEP October 2022 Report



Collared elephant Polaris enjoying a scratch. Watch the full video here.

GENERAL

Mara Elephant Project started the month with a big announcement on World Habitat Day, H.S.H. Princess Marie of Liechtenstein was announced as MEP's first Global Patron. In her role as Global Patron, Princess Marie will focus on expanding MEP's brand and influence internationally to bolster our impact. MEP is thrilled to add Marie's passion and talents to the organization. Marie will join other notable women at MEP including Chairwoman Beatrice Karanja. "Everyone at MEP is exceptionally honored that Princess Marie will be joining us as our esteemed Patron. Marie's wealth of experience in business and philanthropy will be invaluable to our aspirations and goals in protecting Mara's elephants, greater ecosystems and more importantly in creating sustainable human-wildlife co-existence models. Her passion for Kenya, the people and our wildlife runs deep and we couldn't think of a better ambassador for MEP," said Beatrice.

SECURITY, ANTI-POACHING & CONFLICT

On October 4, Kenya Wildlife Service (KWS) arrested two suspects in possession of 26 kg (57 lbs.) of elephant ivory based on MEP intelligence. The two suspects were transporting 13 pieces of tusks in the trunk of their car and were arrested near the Tanzania border. Later in the month, on October 26, KWS arrested one suspect with four pieces of ivory weighing 10.5 kg based on MEP intelligence. The joint operation also included the MEP "Golf" ranger team stationed nearby protecting the Nyakweri Forest. The ivory appeared to be old and was recently unearthed with the intention to sell.

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The MEP / Sheldrick Wildlife Trust (SWT) Mau De-Snaring Units are patrolling the Mau Forest rooting out illegal poaching or deforestation activities. The men and women of the "Charlie" team removed 12 snares over two separate days in October that they found inside the forest.

The two MEP / SWT Mau De-Snaring Units joined KWS and Kenya Forest Service (KFS) on joint patrols of the Mau Forest. The "Charlie" ranger team on a joint patrol with KFS arrested four suspects in different locations inside the forest for illegal logging and charcoal production. They also destroyed four active kilns and confiscated pieces of timber, an axe and other charcoal making supplies. Then, a few days later, the "Alpha" ranger team while on the joint patrol with KWS and KFS arrested six suspects for habitat destruction activities and destroyed two kilns and five sacks of charcoal.

MEP rangers also responded to other wildlife in October. The MEP "Foxtrot" ranger team received a call from the community that a giraffe was stuck inside a maze of fences within a settlement area, and it needed assistance to be removed. The rangers responded to move the giraffe back to the safety of the conservancy.

On October 13, MEP received reports from Olarro Conservancy rangers that an injured bull elephant was in need of veterinary treatment. We partnered with KWS Vet Dr. Michael Njoroge from the SWT Vet Unit and immediately responded to treat him. He had a spear wound on his

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side most likely a result of conflict with nearby communities. Once treated, the bull was back on his feet and will be closely monitored by rangers to ensure he's healing. Then, on October 17, MEP's mobile ranger team partnered with Dr. Njoroge again to treat a bull elephant with multiple conflict-related injuries. He had two spear wounds, five arrow wounds and it was a team effort to intervene in time. The treatment was successful, and the next day the mobile team monitored him in Ol Kinyei Conservancy and noted that he's recovering well.

On October 13, the MEP mobile team responded to collared elephant Polaris and his herd of nine bulls inside a community area. MEP's community rangers responded to push them back into the safety of a nearby conservancy and ensure the community and elephants were protected in the process. On October 25, the MEP mobile team was called in to push a herd of 17 elephants out of community land and back into a protected area. They responded and used their vehicle and firecrackers, which never actually touch the elephants, to push the herd back into Ol Kinyei Conservancy.

Overall, in October, MEP rangers alongside government partners arrested 19 habitat destruction suspects, destroyed 42 kilns and 34 sacks of charcoal and recovered 408 posts and 16 pieces of timber. They removed 19 snares and mitigated 23 conflict incidents.

A logging bust in October by MEP's newest ranger team in Loita.

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In October, MEP rangers covered a distance of 1,433 km on foot and 14,021 km by car in the GME. MEP rangers covered a distance of 92 km on foot in Marmanet.

HELICOPTER

On the 18th, we reacted with the helicopter to an extremely severe conflict incident involving three herds of elephants. On the night of the 17th, they crossed the Mara River into farms near Emitik in Bomet County and got stranded there. They were all young bulls and probably got confused when trying to get back to Enerau Conservancy. The herds then got split up and at dawn when people started waking up, they surrounded the elephants and started attacking them. One of the stranded herds in turn attacked the crowd killing one man and injuring another badly. It was impossible to get rangers to that side of the river, so we deployed the helicopter to ferry rangers to the area and herd the elephants to safety. That day the helicopter flew 7.8 hours. Our condolences go out to the families who lost one of their loved ones.

"At 6:30 Narok SW informed me there was a conflict situation brewing across the Mara River in Bomet County. The report was that six elephants were stranded in farms and the community was gathering at the site. At 7:45 I arrived at the site with the helicopter, and we found the bull elephants in serious conflict situations. They had been injured by arrows and the community was surrounding them. One elephant had moved across the river but the remaining four were split up and in a life-threatening situation. The community was quite aggressive and already baying the elephants and shooting arrows at them. At this point I started ferrying in service members from Lemek and Rhino Sanctuary to each elephant location for increased security. We managed to push one bull back across the river but the other four would not move. At the same time, we called in KWS Vet Dr. Njoroge from the SWT Mara Mobile Vet Unit to treat the injuries. We successfully treated two of the worst by removing arrow heads and cleaning spear wounds." *A firsthand account from CEO Marc Goss to KWS leadership*

COMMUNICATIONS & FUNDRAISING

As mentioned above, we celebrated World Habitat Day on October 3 with a very exciting announcement for the organization, Princess Marie joined MEP as a Global Patron. The official announcement was well received and all of the messages and well wishes were appreciated.

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We're thrilled to have her on our team. Another exciting venture is that MEP has finally joined TikTok, you can follow us at @maraelephantproject.

The Sidekick Foundation, Inc. d/b/a Mara Elephant Project USA received $121,321.42 in donations to support MEP and Mara Elephant Project Trust received $26,300 in donations. Thank you to the Angama Foundation for their annual $20,000 grant payment that supports MEP. We are so grateful for such a wonderful partner in conservation. Additional thanks to Nina Allan and anyone who supported her efforts to raise funds for MEP in 2022. Thank you as well to Fred & Suzie Fehsenfeld, Morris Shafter, Catherine Balton, Animal Survival International, the MET Foundation, Inc., Smithsonian Conservation Biology Institute, Arthur Choate, Marcia Donley, Mike Gruetzemacher, Mike & Margy McCormick, the Jack & Lorraine Walker Fund, Linda Mayer, The Zoback Family Charitable Fund, Gayle Cole, Susan Allen, Barbara Barker, Jan Bellinger, Darlene Brown, Tracy Cermack, Pam Curtis, Sally Davidson, Barbara Davis, Michael der Manouel, Michael Donnelly, Erika Johnson, Allan Montgomery, Thomas Norwood, Charlotte Shea, Katharine Simonds, Daniel Travanti and Liping Wang.

The final month for The Greatest Maasai Mara photographer of the year competition came to a close and MEP was supported with 36 entries. Thank you to Harveet Singh, Clair Nicol, Raheel Shah, Mohamed Almotawah, Ofir Drori, Katherine Murphy, Neil Bhargava, Julie Grohs, Silvia Ribeiro, Sushil Chauhan, Emanuel Ketikai Saruni, Randall Ball, Hema Shah, Tracy Miller, Patricia Leanne McColm, Sophy Roberts, Lauren Barnett Megdal, Sebastian Balke, Viral Shah, Jagminder Matharu, Brian Wells, Kevin Phipps, Indranil Dutta and Joe Bachman for supporting MEP. We can't wait to hear who will be crowned The Greatest Maasai Mara photographer of 2022.

An October entry by Emanuel Ketikai Saruni.

RESEARCH & CONSERVATION

Director's Update

The MEP Research Department had many guests in October to collaborate on our various research and conservation technology projects. We hosted George Wittemyer and Nathan Hahn from Colorado State University. They worked with me on Ecoscope, our long-term monitoring program and had a chance to get into the field, which included joining for the re-collaring operation for Kiambi.

The Giraffe Conservation Foundation was on MEP's campus staying at the research camp as they were undertaking work in the Mara. We also welcomed Jared Stabach, a research ecologist at the Smithsonian Conservation Biology Institute's Conservation Ecology Center and frequent collaborator with MEP. We discussed the continued wildebeest monitoring project.

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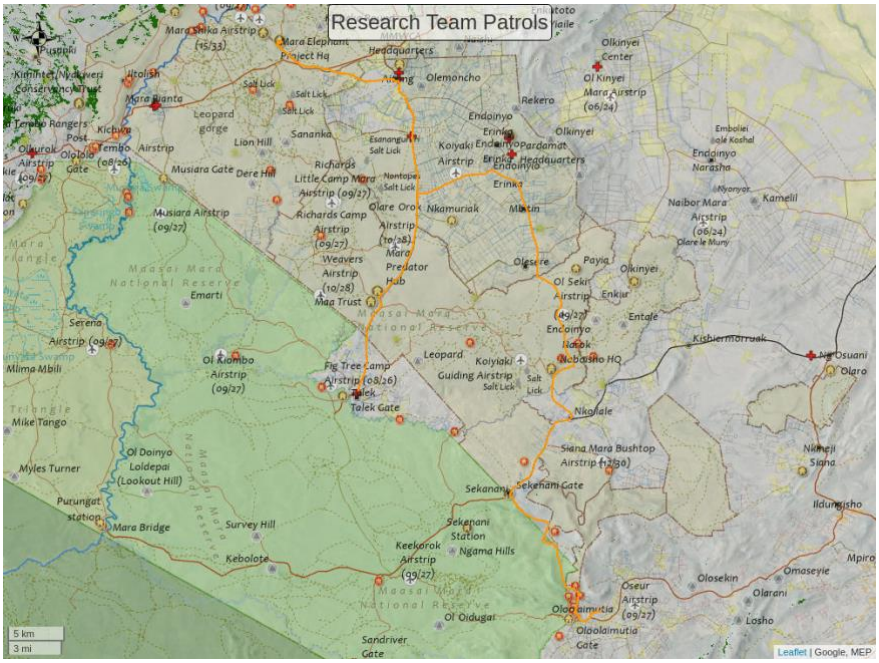
I had the opportunity to visit the Grumeti Fund in Tanzania in October to join others for a conservation technology workshop focusing on conflict, camera traps, wildlife tracking and protected area management. I was able to visit the new RISE Facility, a collaboration between the Grumeti Fund and MASS that is a research facility in the Western Serengeti Corridor. It was extremely impressive.

We are excited to welcome Eric Gitonga to MEP. Eric started in October and is a software developer working on advancing MEP's bespoke conservation technologies.



Movements (orange tracks) of MEP's three field assistants during October. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our TerraChart app. They recorded 11 km of fences and 0 LCC points in October.

MEP Experimental Farm

General Update

Zero rainfall was received throughout the month of October. Being dry even in the surrounding areas wildlife especially hippos visited the experimental farm in search of food, and we noted a big change in their eating patterns as each day they cleared five plots of each crop that they'd never predated previously. This included coriander, peas, tomatoes, sunflower, canola, gooseberry and cabbage and interestingly all the crops that are usually made into essential oil like lavender, rosemary, geranium, citriodora and tea tree were never touched.

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Butternut squash, sweet potatoes, cucumbers and chili /maize plots before and after predation.

Hippos predating the farm at night captured with different camera traps.

We had the highest number of visitors both locally and internationally to the farm. Guests from Giraffe Conservation Foundation visited the farm to learn more about our work. We were pleased to host MEP co-founder Suzie Fehsenfeld with two friends. It was their first time at the farm, and we were excited to show them everything. Dr. Jake Wall and two MEP partners Nathan Hahn and Dr. George Wittemyer stopped by to exchange ideas. We are always excited to get more insight into the work we are doing.

Over the past month, we have increasingly received community members who would like to learn more about the Co-Existence Farm project. Each Sunday, we've received visitors from within the Enkutoto area where our farm is situated and as far as Ololgolian. We have collaborated and learned from each other as we share ideas, and it is becoming even more important to launch a resource center to host visitors as a central education hub for co-existence farming.

We are excited to announce the launch of a new project, the MEP Medicinal Garden, which will focus on growing traditional medicinal plants, there are over 30 trees and herbs that are used for medicinal purposes, to test the predation level. Medicinal plants are not only useful, but previous research has shown that they have a low predation level. The medicinal garden will help the community to preserve the historical knowledge about medicinal plants, contribute to biodiversity and help us look into a value addition potential. We had the pleasure of visiting a physic garden in Nairobi managed by Debora Coulson that has over 150 different plants used to heal different parts of the body. We learned so much about launching our own medicinal farm.

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The *co-existence farm team at the Nairobi Physic Garden (NPG) and an aerial picture of the NPG.*

Experimental Farm SITREP: *October* 2022

Date Time	Plot Id	Type of Crop	Details
2022_10_07	10-5.2	Eggplant	One Kilogram of eggplant harvested and taken to MEP HQ
2022_10_07	7-8.1	Spinach	A total of 8kgs of spinach was harvested from the three plots , all the harvest was taken to HQ for consumption
	9-11.1		
	8-16.1		
2022_10_07	8-4.1	Corriander	A total of 4kgs of Corriander was harvested, it was consumed at MEP HQ
2022_10_07	1-3.1	Sukuma	A few sukuma leaves were uprooted and eaten by vervet monkeys
2022_10_07	3-6.1	Lemon Grass	A few pieces of lemon grass were eaten by hippos
2022_10_07	4-7.1	Beans	The tips have been eaten by helmeted guinea fowl
	6-13.1		
2022_10_07	5-1.1	Sweet Potato	only a few vines are remaining after hippos eat majority of the vines in this plot
2022_10_07	7-6.1	Carrot	Vervet Monkeys uprooted the upper part of the carrot plant
2022_10_07	6-2.2	Canola	Cows entered the farm and eat one row of this canola plot before they were chased away
2022_10_07	7-1.1	Sukuma	Most of the crops in this two plots were excessively uprooted and eaten by vervet monkeys
	9-4.1		
2022_10_07	10-3.1	Sunflower	All the sunflowers leaves were eaten by cows only the stalks was left
2022_10_07	S2-1-3.1	Maize/Sunflower/ Cover crop	
2022_10_07	S2-1-5.1	Maize/Chili/intercrop	Two rows of maize plant were eaten by cows
2022_10_13	4-3.1	Garlic	A total of 15kgs was harvested from four plots, one plot had very poor yields of very small garlic and couldn't be taken as harvest
	6-11.1		
	8-6.1		
	11-2.1		
2022_10_13	1-4.1	Sweet Potato	The hippos eat in complete each of the plots leaving it almost bare
	11-13.1		
2022_10_13	1-9.1	Peas	Hippos uprooted the peas which were almost ready
	4-6.1		
2022_10_13	1-10.1	Tomatoes	A few tomato crops uprooted by hippos
2022_10_13	2-7.1	Sunflower	Hippos uprooted a few leaving stalks at the plot, they however did not eat the crop
	3-10.1	Sunflower	

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2022_10_13	2-8.1	Potatoes	The plot was eaten halfway by hippos
2022_10_13	2-10.1	Corriander	Almost everything eaten by hippos
	6-14.1		
2022_10_13	4-10.1	Butternut	Completely vandalized by hippos
2022_10_13	5-10.1	Lemon Grass	A few eaten by hippos
	7-13.1		
2022_10_13	8-16.1	Spinach	In one plot all spinach was eaten by hippos while in another only a few remained after the hippo eat the rest
	9-11.1		
2022_10_13	10-3.1	Sunflower	All eaten by cows
2022_10_15	1-4.1	Sweet Potato	Hippos destroyed the whole plot by eating all vines
	11-13.1		
	10-8.1		
2022_10_15	2-3.1	Cucumber	All the crops in this plots were eaten by hippos
	10-12.1		
2022_10_15	5-11.1	Butternut	All eaten by hippos
	6-7.1		
2022_10_15	6-2.2	Canola	A few eaten by hippo and spit at the end of the plot
	8-5.2		
2022_10_15	S2-1-5.1	Maize/Chili/intercrop	Most of the maize crops were eaten by hippos
2022_10_15	S2-1-6.1	Maize/Sunflower/intercrop	
2022_10_19	9-6.1	Potatoes	Most of the potatoes in all the three plots were eaten by hippos
	9-13.1		
	2-8.1		
2022_10_19	9-8.1	Cucumber	A hippo eat everything in all the cucumber plot
	6-14.1		
	7-9.1		
2022_10_19	2-10.1	Coriander	All the corriander in this plot was eaten by a hippo
2022_10_19	7-8.1	Spinach	The plot was vandalized and the hippo eat all the spinach uprooting some
2022_10_19	6-6.1	Sweet Potato	Hippos cleared the plot by eating all the vines of the young sweet potatoes
	1-4.1		
2022_10_19	7-4.1	Capsicum	A few of the growing plants were eaten by hippos
	1-6.1		
2022_10_19	7-5.2	Eggplant	One plant uprooted by hippos
2022_10_19	5-5.1	Goose Berry	A few plants eaten by hippos
	2-12.2	Goose Berry	
2022_10_19	3-11.1	Sukuma	The few remaining after several uprooting by monkeys were eaten
	1-3.1		
2022_10_19	1-10.1	Tomatoes	The plot has completely been cleared by hippos by eating all plants and stepping on others
2022_10_19	1-9.1	Peas	Everything in this plot was eaten by hippos
2022_10_21	3-4.1	Managu	Recently transplanted after it was eaten by hippos and the seedlings took a while in the nursery
	4-7.1		
	6-12.1		
	8-15.1		

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	11-9.1		
2022_10_21	4-10.1 5-11.1 6-7.1 9-1.1	Butternut	Butternut seeds were replanted after all the plots were eaten by hippos
2022_10_21	4-11.1	Chili	Replanted for the second time after it dried up
2022_10_21	8-7.1 10-4.1	Onion	Onion of the two plots were replanted from the nursery after they were harvested
2022_10_22	3-6.1	Lemon Grass	A few stalks eaten by hippos by the tips
2022_10_22	6-2.2 9-12.2	Canola	About a row of each plot has been eaten by hippos
2022_10_22	6-3.1	Potatoes	All potatoes were eaten by hippos
2022_10_22	6-9.1	Straw berry	All plants in this plot were eaten by hippos
2022_10_22	6-15.1	Cabbage	They are heavily affected by aphids and trips
2022_10_22	8-4.1 10-2.1	Corriander	All the plots were cleared by hippos
2022_10_22	8-9.1 9-3.1 11-6.1	Tomatoes	More than half of each plot was eaten and the other remaining was stepped on
2022_10_22	9-10.1 11-3.1	Peas	All the crops have been uprooted and a few eaten while they were in fruiting stage
2022_10_22	11-4.1	Butternut	The whole plot was eaten by hippos
2022_10_22	11-14.1	Cabbage	Aphids affecting leading to poor fruit formation
2022_10_22	S2-1-1.1	Maize/Chili/intercrop	All maize were selectively eaten by hippos in each of the plots
	S2-1-3.1	Maize/Sunflower/Covercrop	
	S2-1-5.1	Maize/Chili/intercrop	
	S2-1-6.1	Maize/Sunflower/intercrop	
2022_10_29	1-2.1	Lemon Grass	A few plants that were still small and growing have been uprooted by hippos
2022_10_29	2-12.1 5-5.1 7-14.1 8-2.1	Goose Berry	All the leaves and part of the stems has been eaten by hippos in all the four plots
2022_10_29	8-5.1 11-1.2	Canola	Hippos eat and cleared the two plots of canola
2022_10_29	1-9.1 4-6.1 5-2.1 9-10.1 11-3.1	Peas	Peas were replanted after they were eaten a few days before
	2-3.1		

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2022_10_29	5-7.1 8-14.1 9-8.1 10-12.1	Cucumber	All were replanted after hippos had eaten all the plots
2022_10_29	2-8.1 6-3.1 7-12.1 9-6.1 9-13.1	Potatoes	All were replanted after a hippo uprooted and eat potato leaves and stalks that had both started having tubers
2022_10_29	2-10.1 6-14.1 7-9.1 8-4.1 10-2.1	Coriander	All were replanted after it was eaten by hippos
2022_10_29	1-5.1 7-3.1 8-7.1	Chili	8.5ks of chili was harvested in the three plots.

Climate Report

Table 2: 1 MEP's Experimental Farm Rainfall Recording October 2022

There was zero rainfall to record in October.

Tracking Manager Report

Kiambi was re-collared on October 19 by KWS, the Wildlife Research and Training Institute (WRTI) and MEP. He is a large bull elephant in his late 30s who was originally collared by KWS, World Wildlife Fund and MEP in 2016 to track his movements in an area with increased infrastructure development to react to mitigate conflict and monitor his range over time. Kiambi is an interesting elephant to track because he has very distinct wet and dry season movements and spends over 30% of his time in unprotected areas. The MEP mobile team alongside CEO Marc Goss and Director of Research and Conservation Dr. Jake Wall partnered with KWS Vet Dr. Michael Njoroge for the collaring operation, and while Kiambi was asleep, a couple of old wounds were re-treated by the vet. KWS, WRTI and MEP will continue to closely monitor his movements, especially in unprotected areas, to rapidly respond if conflict arises.

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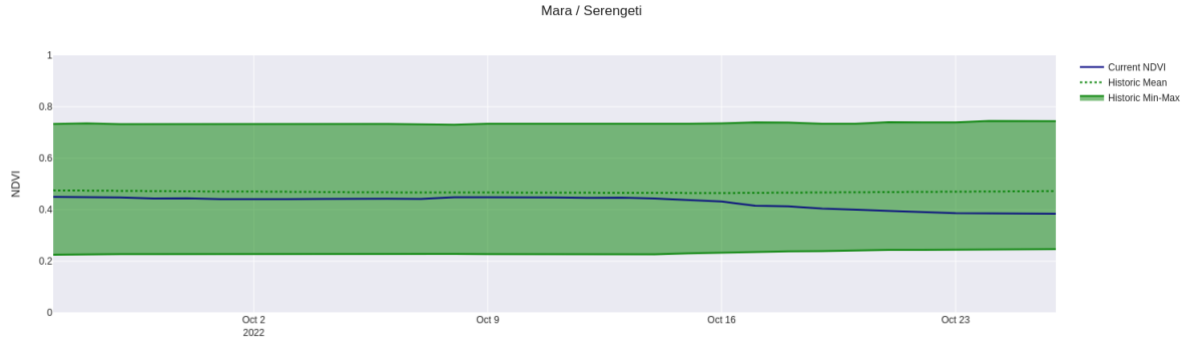
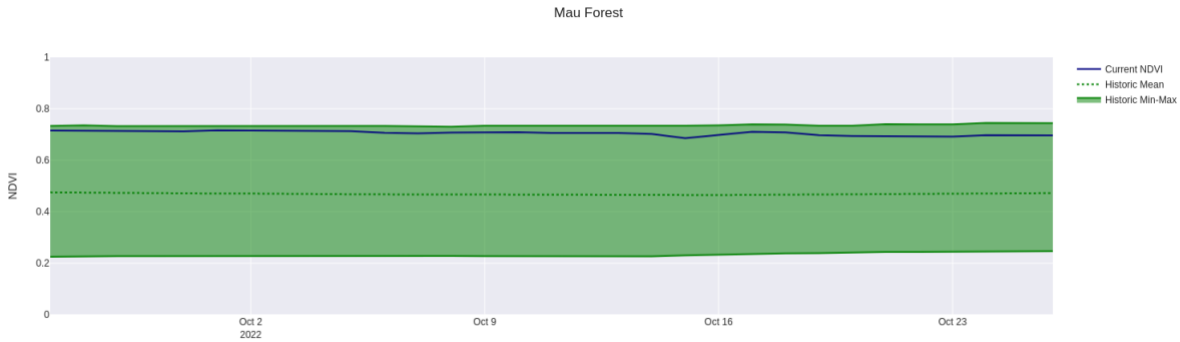
ENVIRONMENT: NDVI

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

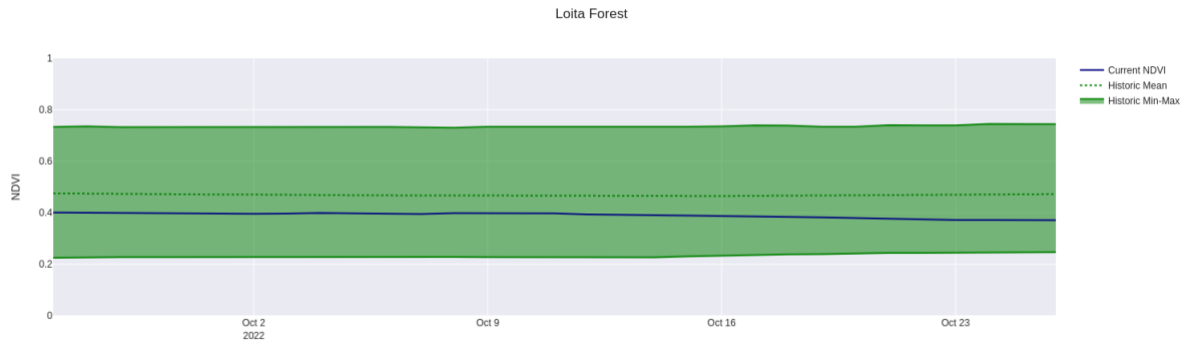
Greater Mara Ecosystem (GME)



Mau Forest



Loita Forest



Rift Valley / Mosiro

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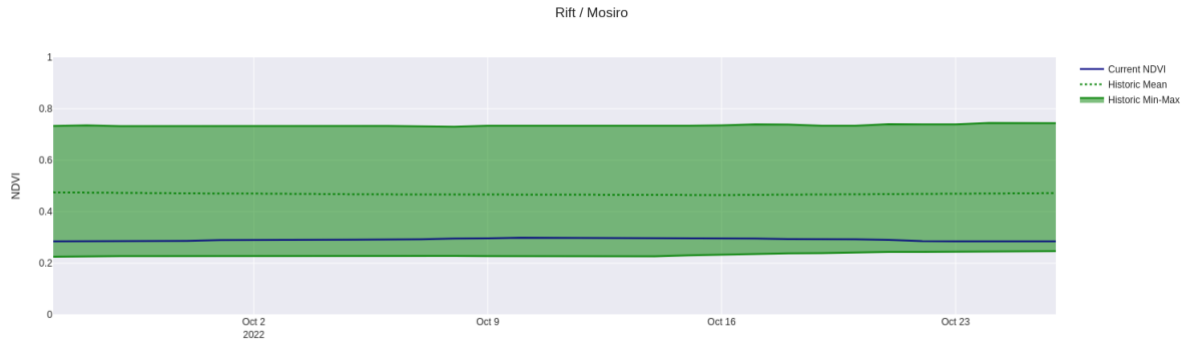
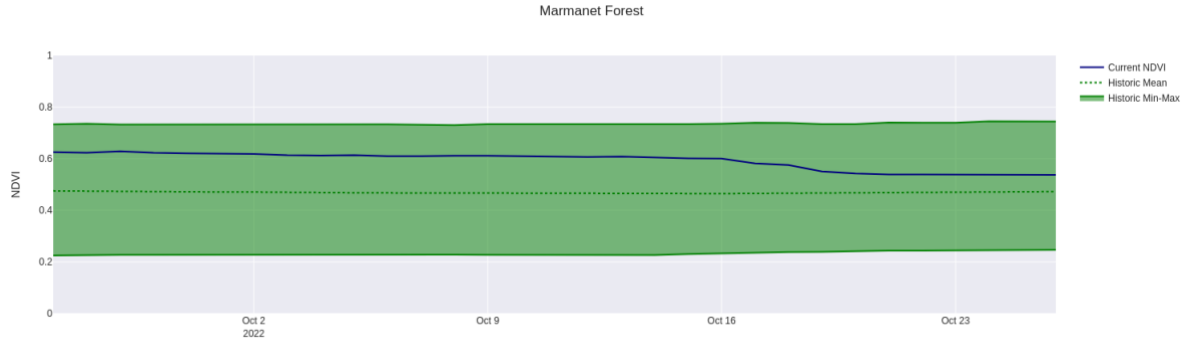


Marmanet Forest



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