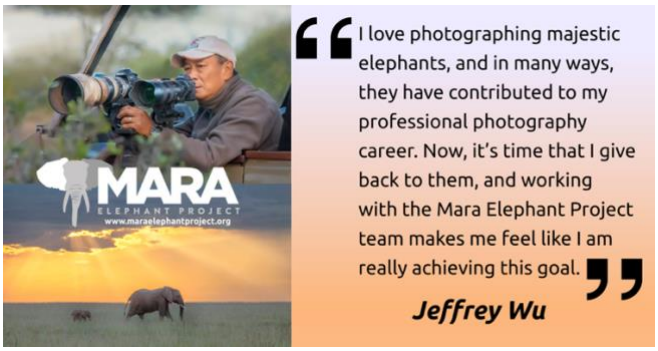
MEP November 2022 Report

Jeffrey Wu Photography

GENERAL

Mara Elephant Project is honored to have famous wildlife photographer Jeffrey Wu as a MEP Image Ambassador, which was announced in November. Jeffrey is a Canadian professional wildlife and nature photographer accredited by the Professional Photographers of Canada, a Kenya Tourism Board brand partner and a commercial photographer contracted by Nikon. Jeffrey became a professional wildlife photographer in 2013 shortly after his first trip to Kenya. Born and raised in Shanghai, China, Jeffrey started taking photos at the age of 7, under the direction of his mother, a professional portrait photographer. Jeffrey specializes in African wildlife photography and spends 10 months a year in Kenya and other African countries capturing their beauty. His images and articles have been published in more than 120 publications worldwide.



We've been delighted to host him at headquarters in the Mara in November where he's gone out with rangers and researchers, interviewed staff and he graciously hosted a photography class for any MEP staff interested. Conservation Officer Wilson Sairowua and several members of the MEP long-term monitoring team attended to learn more from Jeffrey about wildlife storytelling through the camera lens.

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Most of the MEP team had the opportunity to join our close partner EarthRanger at a user conference held in Kenya in November. The conference was attended by over 300 people from organizations around the globe. MEP was proud to be an early adopter of this revolutionary technology as Director of Research and Conservation Dr. Jake Wall is a co-founder alongside Ted Schmitt and Paul Allen. Jake gave a presentation on MEP's latest bespoke technology Ecoscope and it was standing room only. CEO Marc Goss participated in the Forest Management discussion and Conservation Officer Wilson Sairowua participated in the Communities in Conservation discussion. We were extremely proud to join our partners from near and far at the conference and want to thank Kenya Wildlife Service, the Wildlife Research and Training Institute and EarthRanger for bringing us all together to learn more about the amazing work undertaken in conservation.

SECURITY, ANTI-POACHING & CONFLICT

On November 26, the MEP mobile team, tasked with responding to the entire Mara in areas of the most need, was chasing a suspect in possession of poisoned arrows and targeting elephants. During the chase the suspect resisted arrest and MEP ranger Gideon was injured by the suspect and needed immediate first aid. After the suspect was apprehended, MEP rangers administered first aid to Gideon and transported him to a local hospital where he received treatment. He's since made a full recovery and is already back on patrol and, thanks to the ranger's quick response, elephants were not harmed during the attack. It's been several years since MEP has recovered poisoned arrows alongside our government partners in the Mara.

Combatting habitat destruction alongside Kenya Wildlife Service (KWS), Kenya Forest Service and the Bongo Surveillance Project is one of the important tasks for MEP rangers. In November, the

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"Charlie", "Golf", "Alpha", "Echo", "Kilo" and "Bravo" teams successfully confiscated 41 bags of charcoal, arrested 12 habitat destruction suspects and destroyed 36 kilns that on top of mitigating conflict incidents and combatting bushmeat poaching. These men and women are the backbone of our organization, and alongside our partners are combatting the threats facing ecologically important wildlife areas. Your support this holiday makes it all possible.

While monitoring three bulls in the Nyakweri Forest on November 21, the "Golf" team noted an elephant with an injury in need of immediate vet intervention. We called in our partners KWS Vet Dr. Ephantus Ndambiri with the Sheldrick Wildlife Trust (SWT) Mara Mobile Vet Unit and assisted them with treating the spear wound on the injured bull. A few days after his treatment, the rangers monitored him recovering alongside seven other elephants noting that he was looking to be healing well.

An elephant calf was reported with an injury in need of immediate vet intervention. MEP rangers alongside Assistant Senior Warden Maitai responded to assist our partners with the treatment. The KWS Vet Dr. Ephantus Ndambiri from the SWT Mara Mobile Vet Unit treated the spear wound on the young bull's right rear leg and he was back on his feet and reunited with his herd after treatment.

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In November, MEP rangers alongside government partners arrested one suspect with 13 kg of ivory, destroyed 36 kilns, 47 bags of charcoal, recovered 150 pieces of timber, arrested 12 habitat destruction suspects and recovered five snares. There were 29 total incidents of conflict mitigated in November, the second highest month in 2022.

The recently launched "Kilo" ranger team was graciously invited to celebrate Mashujaa Day (Heroes Day) alongside the community and operational partners to discuss illegal logging activities taking place in their area of patrol. It was a great chance for the team to speak with the community leaders directly about the impact of logging at the forest's edge. MEP rangers were grateful for the opportunity to meet and speak directly with the assistant county commissioner and community leaders to celebrate their work as conservation heroes.

Finally, MEP ranger Stanley Momposhi is running the Ultra MARAthon on Saturday, December 10. The marathon is a race through the amazing Maasai Mara all to raise money for MEP, Africa Mission Services and local conservancy rangers. Good luck to Stanley and all of the participants.

In November, MEP rangers covered a distance of 1,180 km on foot and 12,845 km by car in the GME. MEP rangers covered a distance of 82 km on foot in Marmanet.

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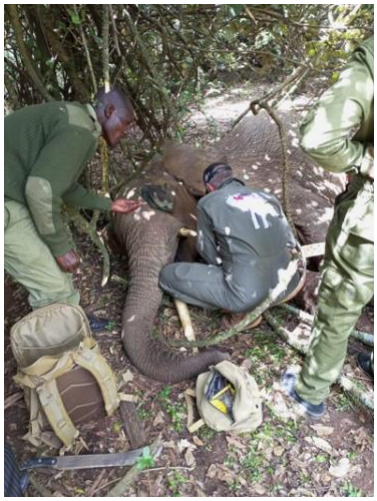
HELICOPTER

Since 2020, MEP has been overseeing a team of community scouts in the Marmanet Forest. They monitor elephants in the area and coordinate with KWS and our forces to increase protection by deterring illegal activities in the forest and responding to conflict. They've had success in 2022 with supporting the community to remove elephants from their farms; however, damage to crops and property have been increasingly reported. We've actually seen a connection between the Mau Forest and Marmanet Forest when MEP collared elephant Vasco immediately traveled over 50 miles from the Mau to Marmanet after being collared in July 2019. The movement monitored by KWS, the Wildlife Research and Training Institute (WRTI) and MEP was entirely unexpected as elephants were not known to still move between these two separate geographical regions. Our ability to use the MEP leased helicopter to aerially monitor Vasco has helped increase our understanding of his movements and his home, the Marmanet Forest. Through aerial and on the ground monitoring an alarming amount of illegal logging and charcoal operations inside the forest has been noted.



One of our goals in 2023 is to expand into the Marmanet Forest with a permanent ranger team. This will allow us to respond to alerts while we monitor the movement data from the collared elephants there. In response to increased conflict reported by the community from a large breeding her we collared a female elephant affectionally named "Bea" on the November 7 with KWS and WRTI in the northern portion of the Marmanet Forest. "Bea" is named after MEP's Chairwoman Beatrice Karanja. We hope that Bea the elephant helps us keep an eye on Marmanet as Bea does with MEP. Elephant Bea resides in a herd of 30 and her collar will allow MEP and our partners to paint a more detailed picture of how elephants are using this important forest to increase not only the forest's protection, but Bea's as well.

COMMUNICATIONS & FUNDRAISING

In November, you all made Giving Tuesday a huge success for MEP. We launched a holiday campaign that will continue through the end of the year featuring artist Leslie Cline and our partner Thanksgiving Coffee Company. Thank you both for lending your talents to MEP.

The Sidekick Foundation, Inc. d/b/a Mara Elephant Project USA can now accept donations via Venmo. Simply head to our profile to donate. In November, the 501(c)(3) received $233,641.14 in donations to support MEP's efforts in Kenya, and Mara Elephant Project Trust received $44,308

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from Maliasili to support our collaborative efforts to build a framework for the Mara. Thank you to the James and Mary Ann Rogers Gift Fund, Mary Love and the Riggio Foundation for their continued support. Thank you to the Barton J Ingraham & Gail G Ingraham Foundation for supporting the protection of an elephant for three years. Additional thanks to Patrick Kehoe, Nancy Munn, Bruce Reichardt, Joan Ballitch, Eleanor Dunn, Deryl Santosuosso, Harriet Karkut, Pacita Tan, Josephine Wardle, Marie Elaine & Giosue Di Massa, Jan Bell, Robert Baird, Kazuko Nitta, the Metropoulos Family Foundation, the JE Fehsenfeld Family Foundation and John Dillow, Mary Fuller, Patricia Clark, Theresa Daniel, Judith Dillon, Timothy Greene, Elizabeth Hyatt, Marcia Johnson, Gregory Kunert, Jeremy Lang, Lee Lockwood, Lynn Lowry, Ruby Maupin, Betty Parker, Virginia Perez, M Rakestraw and Nelson Schaenen.

Explorers Against Extinction partnered with MEP to support our co-existence farm in 2022. Their Sketch for Survival fundraising auction took place in November and featured a fantastic collection of art and photography, and proceeds benefitted their project fund, which supports six projects including MEP.

MEP hosted visitors in November from the Borås Wildlife Conservation Fund, which included the director of the Borås Djurpark, at our headquarters in the Mara to discuss our elephant protection activities they generously support. They were staying nearby at Karen Blixen Camp and announced a donation of $5,000 while visiting us. We are thankful for dedicated supporters like the Borås Wildlife Conservation Fund and for visitors to the Mara for coming to see us to learn more about our work.

RESEARCH & CONSERVATION

Director's Update

We had a big team visit the EarthRanger User conference. I've been to every one (but one) since they started in 2015. Having developed the initial version of EarthRanger, it was very nice to see how far the software has come and been adopted globally. The Vulcan/AI2 team have done an amazing job and we're honoured to continue a close collaboration. In that same vein, after the conference, members of the EarthRanger mobile development team joined us at MEP to collaborate on the newly launched ER Mobile app.

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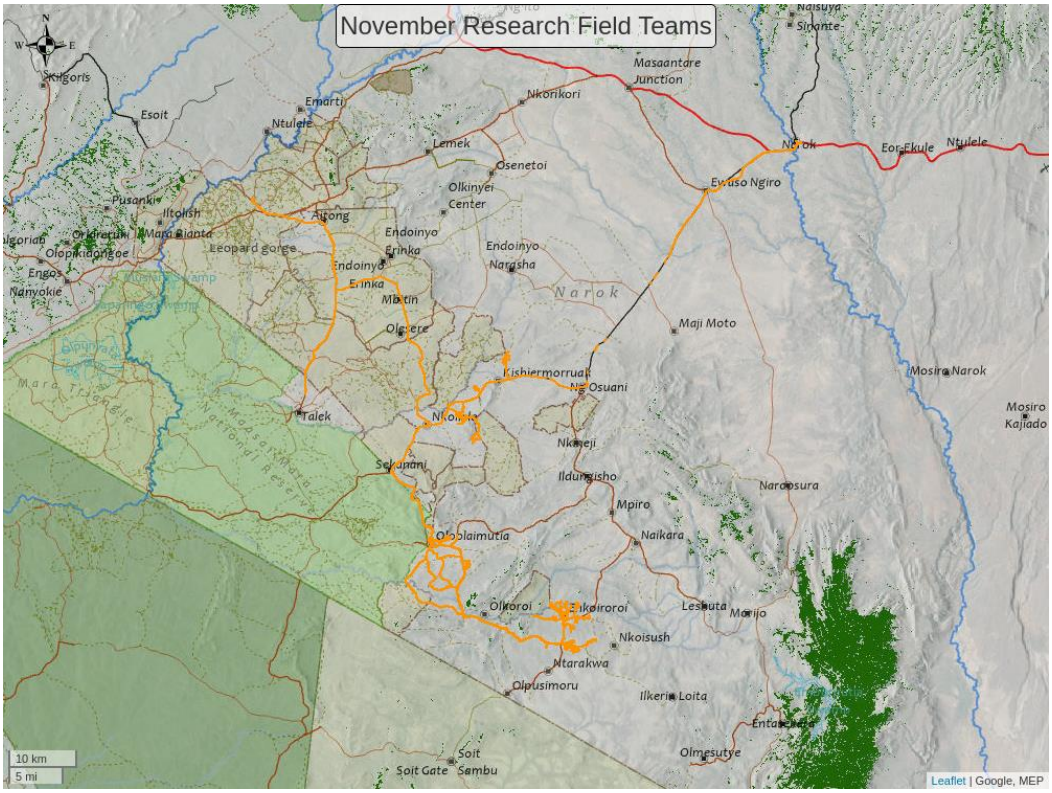
EarthRanger CEO Jes Lefcourt visited MEP in November before the conference to see the team and learn more about the technologies we've been working on at MEP that expand EarthRanger's functionality.

I had the pleasure of participating on the selection committee for the 2022 Conservation Tech Awards granted by EarthRanger. Congratulations to Club Arribada and MoveApps for being the winners of the $15,000 grants to help accelerate innovative and impactful work in wildlife and ecological conservation. During the last two days of November, we hosted a workshop in Narok on behalf of the One Mara Research Hub (of which MEP is now the host organization) and facilitated by Dr Holly Dublin. The goal of the workshop was to help develop a monitoring framework for the Greater Mara Ecosystem (GME). Fifteen attendees participated and we are soon to finalize an initial draft of the framework. It will help unify disparate monitoring efforts and attempt to create a unified approach to the key indicators and datasets for understanding the ecological, social, economic and conservation trends across the Mara. A second workshop is planned for February to delve into the technical details of how the framework would be implemented.



Movements (orange tracks) of MEP's two field assistants during November. All of our field assistants are working on mapping fences, roads and landcover ground-truthing points using motorbikes and our TerraChart app. They recorded 12 km of fences and 42 LCC points in November.

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MEP Co-Existence Farm

General Update

The few first days in November the farm experienced rainfall, which was quickly followed by dry days until the end of the month. Currently, most of the crops at the farm are not being predated; however, in the beginning of November, we had hippos selecting the palatable crops to them and we had elephants visiting two times during the month, but we observed zero predation. A few visitors came to the farm this month, six people from the EarthRanger team visited the farm, we later had MEP USA staff member Dennis Norris and lastly MEP Photography Ambassador Jeffrey Wu.

Experimental Farm SITREP: *November* 2022

Date Time	Plot Id	Type of Crop	Details
2022_11_04	3-5.1 5-8.1 6-15.1	Cabbage	A total of 15gs were harvested, most of the plots were affected by insects as well as predated by hippos
2022_11_04	1-7.2 6-2.2 8-5.1 11-1.2	Canola	The plots were all replanted after they were predated by hippo before harvest
2022_11_04	7-6.1 5-3.1 2-5.1	Carrot	They were all replanted after hippos and monkeys uprooted them
2022_11_04	7-2.1 2-7.1	Sunflower	Sunflower plots were replanted as most of the leaves were eaten by hippos and the stalk fell as the hippos passed through the plot
2022_11_04	S2-1-1.1 S2-1-3.1 S2-1-4.1 S2-1-5.1 S2-1-6.1	Maize/Chili/intercrop Maize/Sunflower/Covercrop Maize/Ditch Maize/Chili/intercrop Maize/Sunflower/intercrop	Maize were replanted in all the plots after they were predated by hippos
2022_11_04	3-11.1	Sukuma	All the sukuma were eaten by hippos
2022_11_04	5-10.1	Lemon Grass	A few stalks of lemon grass were predated by hippos
2022_11_04	5-13.1	Tomatoes	A few remaining pieces were eaten by hippos
2022_11_04	7-14.1 8-2.1	Goose Berry	All pieces of plants were eaten by hippos leaving only the hard stalk
2022_11_04	9-12.2	Canola	All canola plants that were in flowering stage were eaten by hippo in this plot
	10-3.1	Sunflower	

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2022_11_04	11-12.1	Sunflower	Hippos eat the leaves of the sunflower leaving the stalk and flower
2022_11_04	11-14.1	Cabbage	Insects affected the cabbage fruit
2022_11_13	3-4.1	Managu	Stalks of the fruits have been eaten by hippo
2022_11_13	3-10.1	Sunflower	Uprooted and leaves eaten by hippos
2022_11_13	8-16.1	Spinach	The whole plot of spinach has been re-eaten by hippos
2022_11_13	9-9.1	Okra	Hippos passed through the plot and bit a few stalks of okra plant
2022_11_20	5-10.1	Lemon Grass	A few stalks of lemon grass were predated by hippos
2022_11_20	5-13.1 11-6.1	Tomatoes	Hippos destroyed the two plots of tomatoes with few tomato crops remaining
2022_11_20	8-13.1	Carrot	Hippos passed through the plot of carrot and eat most of the growing plants
2022_11_27	3-6.1 5-10.1	Lemon Grass	Lemon grass plants have been eaten by hippos by the tips

Figures

Figure 1 & 2: A hippo and elephant in the farm picture captured by camera trap.

Figure 3, 4 & 5: Peppermint, tree tomato and geranium a few crops doing well at the farm.

Figure 6: Lemon Grass after it has been predated by hippos.

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Climate Report

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

Date	Rain gauge 1	Rain gauge 2
2022_11_10	9	5
2022_11_12	40	28
2022_11_16	5	3

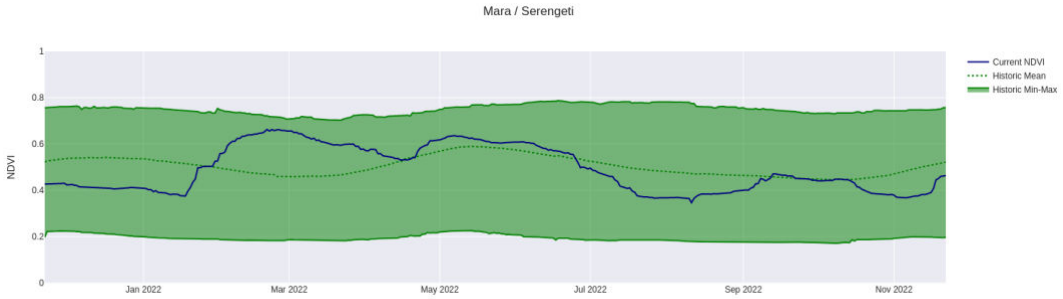
Tracking Manager Report

Collared elephants Chelsea and Natasha were recently monitored by the Mara Elephant Project mobile ranger team in a herd of almost 100 elephants. Chelsea was seen nursing her calf and Natasha was enjoying a black acacia. MEP alongside our partners Kenya Wildlife Service and the Wildlife Research & Training Institute monitor their movements to rapidly respond to conflict and track them over time to understand how they are navigating an increasingly complex ecosystem. Herds this size are rare and most likely several family groups temporarily joining together. We are thankful they have protected wildlife land set aside like Ol Kinyei Conservancy where they were monitored.

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)



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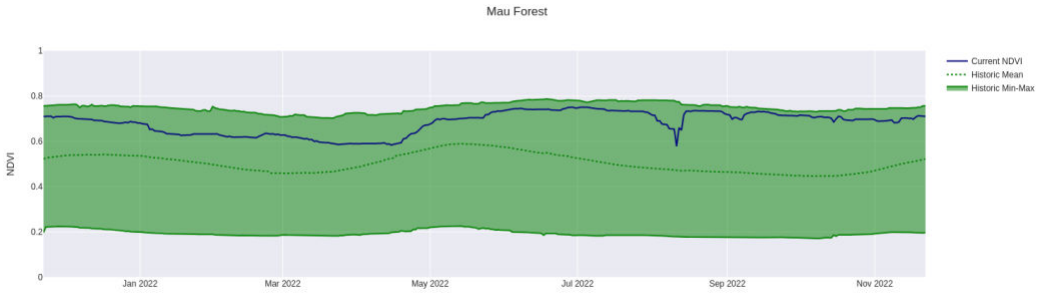
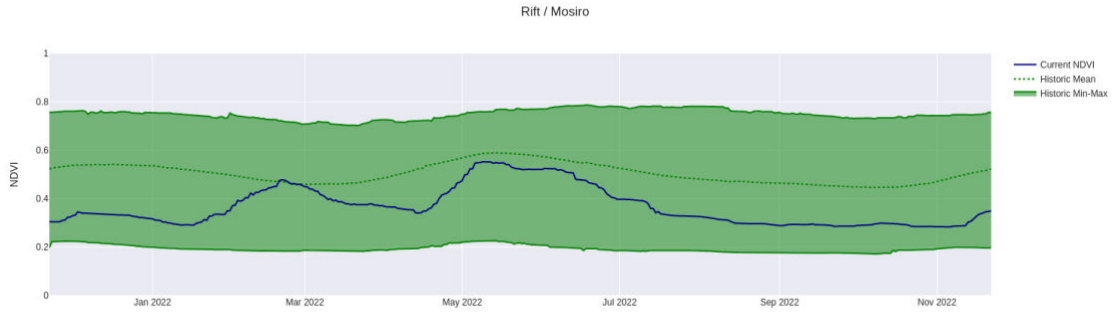
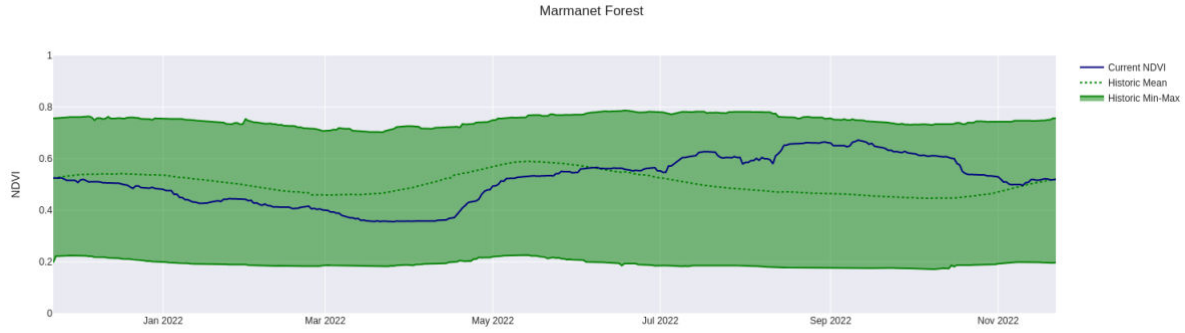
Mau Forest



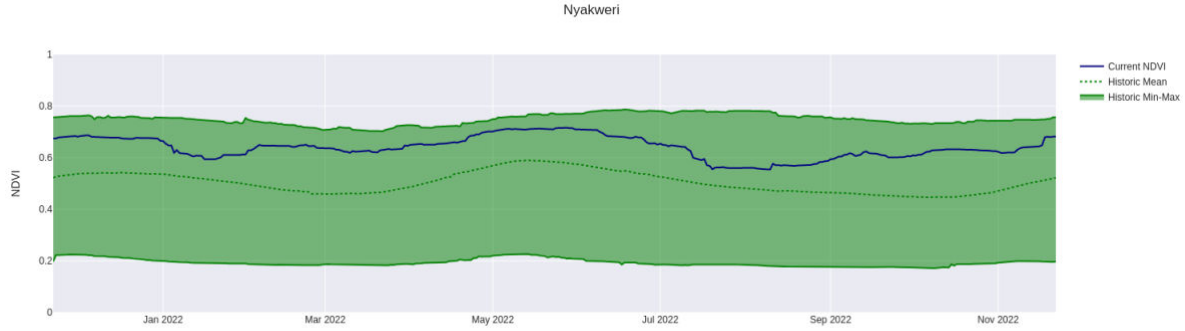
Rift Valley / Mosiro



Marmanet Forest



Nyakweri Forest



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