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Regrow Borneo is helping achieve an ecological revival along the Kinabatangan River. This ambitious project, a collaborative effort between Cardiff University, the Danau Girang Field Centre, and community cooperative KOPEL, seeks to restore tropical forests through ethical, transparent, and research-led replanting. This project aims to address the pressing issues of climate change and forest fragmentation by focusing on the restoration of degraded riverine and swamp forest within the Lower Kinabatangan Floodplain. The strategy involves meticulous scientific planning, ensuring that each replanting effort contributes to the overall health and resilience of the ecosystem.

The collaboration between Cardiff University, the Danau Girang Field Centre, a hub of ecological research, and KOPEL, a community cooperative deeply rooted in the region, forms the backbone of Regrow Borneo. This unique partnership combines scientific rigor with community engagement, establishing a holistic approach to conservation.

Maz is a dedicated Ph.D. student whose scientific endeavours are shedding light on the intricate dynamics of the reforestation process. Tasked with monitoring forest biodiversity and carbon sequestration, Maz recently completed the measurement of above-ground carbon, by measuring tree heights of a one hectare square of replanted, restored and natural forest. However, the Lower Kinabatangan Floodplain's current flooding has temporarily halted the assessment of below-ground carbon, where a 1 meter by 1 meter hole is dug and the roots are collected, and the carbon stored is measured. However this will hopefully continue in the dry season!

Picture 1: Maz collecting camera traps at a flooded restoration site

Picture 2 & 3: Maz, Ray (Research Assistant), Kim (volunteer), Sabah and Tom (PTYs) measuring trees for the above ground carbon

Pangolin Project Update



The pangolin project is a collaboration between Danau Girang Field Centre (DGFC) and Hong Kong University (HKU), investigating the role of Sunda pangolins (*Manis javanica*) in the emergence of SARS-CoV-2 and other viruses in humans.

A pangolin we named Sabit, meaning 'scythe/sickle' in Malay, was rescued from Pendirosa plantation, downstream of DGFC in December 2023. Unfortunately, she had been injured but was immediately treated by Maca, one of the vets working on the pangolin project for Hong Kong University at DGFC. She has now thankfully recovered! After being radio-tagged and translocated to Kaboi, an area of secondary forest upstream, Sabit embarked on her journey to reclaim her natural habitat. Settling mainly in riverbank burrows and tree hollows along the river edge.

However, the path to conservation is not always straightforward. Despite the initial success in tracking Sabit for two weeks post-release, the signal was unfortunately lost, and we continued to search the area for her signal as well as going further up and downstream. Hopes are still high, as this has happened before with one of our other pangolins, Abang (meaning older brother in Malay). Abang was captured in the nearby village of Batu Puteh in mid-May where he was tagged and then released locally into the forest. However, it was difficult to follow his signal, with one period of unsuccessful searches lasting for two weeks. Despite this, he was found in a nearby plantation where he seems to have settled and established a home range. So the search for Sabit continues!

Picture 1: Kawthar (visiting researcher) and Sabah (PTY) assisting in the tagging

Picture 2 & 3: Maca (vet) and Lee (Field assistant) sterilising a wound

Picture 4: Our new tagged Pangolin - Sabit

Amanda's First Recapture of her PhD!





We are thrilled to spotlight Amanda, one of our amazing PhD students and valued staff members at the centre, who is dedicated to studying the movement ecology and habitat preferences of the elusive leopard cat (*Prionailurus bengalensis*) and flat headed cat (*Prionailurus planiceps*).

Leopard cats are remarkable generalists, showcasing their adaptability by thriving in both anthropogenically altered habitats and untouched natural environments. Amanda's primary field of study surrounds the tracking and studying of their movements predominantly in plantations, where these feline creatures often inhabit.

In a stroke of incredible fortune during a night expedition in the plantation just across the river from our centre, our Field Assistants managed to recapture a leopard cat that had previously been collared. What makes this encounter even luckier is that the collar had recently reached the end of its operational life. This particular leopard cat was captured during a visit from Sarawak Energy who helped with the collaring. The cat was therefore named 'Rentap' after a Sarawakian warrior. and relocated to our centre, he was given the fitting name 'Rentap' in honour of a Sarawakian warrior.

The frequency is associated with the cat's individual collar and locates it using a wide-range antenna by listening out for a consistent, high-pitched 'beep'. Once close enough to the collar, determined by the strength and volume of the beep, the radio is attached to a directional (Yagi) antenna and a Base Station which downloads the data. This information can be used for a variety of purposes, such as establishing which areas have been used as sleeping sites and places of refuge. The recapture of Rentap presents an invaluable opportunity for Amanda's research, allowing for an extended period of data collection that will significantly enrich her findings. With Rentap as a key subject, along with another male leopard cat named 'Garfield', who inhabits a plantation downriver, Amanda has successfully tracked and gathered a great amount of data.

The Kinabatangan area, where Amanda conducts her research, serves as a vital backdrop to her work. This region, rich in biodiversity, offers a unique habitats that leopard cats navigate. Amanda's commitment to studying these captivating creatures contributes not only to our understanding of their ecology but also to the broader conservation efforts in this ecologically significant area.

Picture 1: Amanda and Sabah (PTY) preparing the data sheets and testing the tag is working before collaring. (Photographed by Kawthar Chehaima)

Picture 2: The Field Assistants walking ahead trying to spot the eyeshine from the cat. (Photographed by Kawthar Chehaima)

Picture 3: A colugo seen on a tree bordering the forest and plantation. (Photographed by Kawthar Chehaima)

Picture 4: Our vet checking Rentap's paw just before being released. (Photographed by Kawthar Chehaima)



Welcoming a First Time Field Course!!



We were delighted to extend a warm welcome to the field course participants from St. Joseph's Institute International School in Singapore. Over the course of an engaging and action-packed five days, the students immersed themselves in a diverse range of activities.

Each day brought a new adventure for the students, as they actively participated in various activities curated to provide an enriching experience. One noteworthy activity involved observing live monitor lizard trapping, demonstrated by our experienced field assistants and one of our PTYs (Professional Training Year student). The students learned how to set up traps and gained insights into different live trapping methods, with a focus on the gravity-door trap – primarily designed for larger animals. In contrast, the spring-cage trap, ideal for lighter and smaller creatures, was also explored. The students delved into the intricacies of bait selection, experimenting with scented bait, raw chicken, audio, and visual bait.

Another highlight of their visit was cast net fishing, a joyful experience led by one of our field assistants and PTYs. The students honed their skills in casting nets properly, resulting in the exciting capture of various fish species, including catfish. In a commendable effort to offset their carbon footprint and gain insights into the Regrow Borneo initiative, the students actively participated in tree planting at the Jetty, with guidance from Maz and the PTYs.

Venturing into the realm of wildlife tracking, the students engaged in VHF tracking of our symbolic toy monkey, 'Banana', following one of DGFC's s trails. This tracking method, essential for pangolin monitoring in collaboration with Hong Kong University, utilizes Very High Frequency (VHF) tracking. The students received a detailed presentation on VHF tracking from Jerry, a researcher at Hong Kong University based at DG, and William (PTYs). They were introduced to the directional antennae and radio's 'gain', allowing them to pinpoint the exact location of the pangolin. The lower the gain, the closer the proximity.

The concluding activity involved camera trapping around the field centre, led by PTY Harry. He provided a comprehensive presentation on camera trapping, its applications, and usage. Each group had the opportunity to set up their own camera trap along one of the trails, collecting it on the final day. The culminating evening featured a presentation showcasing the best shots captured by the traps, featuring images of Malay civets, a moonrat, a monitor lizard, and amusing accidental selfies taken by the students during set-up.

Photo 1: The students looking at an Oriental Dwarf Kingfisher with Ray.

Photo 2: The students playing volleyball with the staff.

Photo 3: A student and Tom (PTY) after winning the bird identification competition.

Photo 4: The students arriving at DGFC.

More on Maz's Merdeka Award!



We're excited to share some great news about Maz, one of our PhD students. Maz recently achieved a significant milestone by becoming the first Sabahan to receive the Merdeka Award Grant for International Attachment—a fantastic accomplishment!

Thanks to this award, Maz will be heading to Mexico in February for a threemonth trip to explore reforestation in the global south context. During her stay, she'll be actively involved in learning and contributing to the ongoing conservation efforts in the region.

Recently, a film crew visited DGFC to document 'A Day in the Life of a Grant Recipient.' They joined Maz, Ray (Research assistant), Harry and Sabah (two of our PTYs) on a trip to one of our restoration sites upriver. The team measured tree heights and widths, operated drones for a bird's-eye view of the forest canopy, and retrieved camera traps in the area. This data helps Maz monitor the forest structure.

Maz also took the film crew to the Kopel nursery, where she discussed the community's role in the Regrow Borneo project. It was a great opportunity for Maz to highlight how community participation contributes to the success of the project.

As Maz gets ready for her journey to Mexico, we congratulate her on this achievement and look forward to hearing about her experiences and insights into reforestation and conservation. Her dedication and contribution to environmental sustainability are truly commendable.

Picture: Maz, Nadia and Aaina after arriving at DGFC

Visitors from Poland

In November we had a visit from a mix of ecologists, conservationists and geologists from establishments in Poland including Poznan University and AMU (Adam Mickiewicz University). They stayed at DGFC for 4 days and participated in pangolin tracking with our HKU researchers – Jerry and Maca. They had a lot of interesting conversations with the PTYs, discussing sustainable development in forestry management and conservation with regards to protecting culture, historical sites and local communities. We hope to establish a collaboration in the future benefitting both parties.

Picture: The visitors with Benoit Goossens and John Robertson





Merry Christmas and a Happy New Year!

Wishing you happy holidays and a wonderful New Year from everyone at DGFC! Our dedicated staff and students wrapped up their morning fieldwork, with PTYs replacing camera traps on the scenic Batangan ridge. The day ended in a festive dinner, cooked by our amazing chefs! We celebrated the new year by having a barbecue at the jetty – sedap!

Picture: The staff and students at Christmas dinner

Photo and Camera Trap Highlights



Juvenile Proboscis monkey (*Nasalis larvatus*) Photographed by: William Evans



Dark eared tree frog (*Polypedates macrotis*) Photographed by: William Evans



Female Malay civet outside the main building (Viverra tangalunga) Photographed by: William Evans





Long tailed macaque on the grass outside of the studio (*Macaca fasciculars*) Photographed by: Harry Cholerton



A Saltwater crocodile (*Crocodylus porosus*) Photographed by: Harry Cholerton

Silver langur along the riverbank (*Trachypithecus cristatus*) Photographed by: Harry Cholerton



A Wrinkled hornbill along the riverbank (Aceros corrugatus) Photographed by: Harry Cholerton

Danau Girang Field Centre Danau Girang Field Centre was opened in July 2008. It is located in the Lower Kinabatangan Wildlife Sanctuary, Sabah, Malaysia.

Danau Girang is owned by the Sabah Wildlife Department and supported by Cardiff University. Its purpose is to further scientific research with the aim of contributing to long-term conservation projects in the area, and develop a better understanding of our environment and the living things we share it with.

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