# Jungle Times



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### **The Final Flooding Update**

By Will Bryson, PTY

This year, the flooding season in the Kinabatangan has been particularly severe in both extent and duration. Floodwaters first arrived in December 2024 and only began to noticeably recede in June 2025, marking over six months of flooding, the longest duration of a flood season the centre has seen. The prolonged flooding has impacted all research and conservation efforts at the Field Centre, including the Regrow Borneo Project, where several reforestation plots have remained submerged for extended periods.

The full effects of this unusually long flood season are yet to be understood, but assessments are now underway. Fortunately, with water levels dropping rapidly this month, fieldwork and monitoring activities are resuming, allowing staff and field courses to re-enter affected sites and continue research.

# **Welcoming Our New Operations**

# Manager! Interviewed by Amy Besant-Roberts, PTY

We'd like to welcome a new addition to our DGFC team; Haddy arrived at DG back in mid-February and took over the role of manager from Tim at the end of March. Here we speak to him about his new role.

Q. What inspired you to join the DG team?

A. I was inspired to join the DG team because of the incredible opportunity to work in such a unique and remote environment. I've always been passionate about wildlife, conservation and working closely with nature, and DGFC offers a chance to do exactly that while also contributing to meaningful research and community engagement.

#### Q. What has been your favorite part of living here?

A. My favorite part has to be the deep connection with nature. Waking up to the sounds of the jungle, being surrounded by wildlife, and experiencing the beauty of this place every day is truly special. The sense of community among the team here also makes it feel like home.



Q. Are you enjoying working with and leading the team here?

A. Absolutely. It's been a real joy getting to know everyone and working alongside such a dedicated, passionate team. Leading here is not just about management, it's about collaboration, learning from each other, and supporting one another to keep things running smoothly.

Q. What are some of the challenges of managing a place like this?

A. Managing a remote site like DG comes with its own unique set of challenges, such as limited resources, handling equipment breakdowns, transportation issues, unpredictable weather, and the need to constantly adapt. However, these challenges also make the work more rewarding and help build resilience and problemsolving skills

#### Q. What are your main duties as manager?

A. My main responsibilities include overseeing daily operations, manpower distribution, supporting the team, students, visitors & volunteers, coordinating logistics, and ensuring that safety and wellbeing are maintained. I also work closely with top management to help things run efficiently and to keep communication flowing smoothly. Q. What is the best scene / wildlife you've seen so far?

A. It's hard to pick, but seeing a wild orangutan swinging through the trees for the first time was unforgettable. Moments like that remind me why places like DG are so important.

Q. How have you found adapting to the jungle?

A. It's been an adjustment, but in the best way, living in the jungle teaches you to slow down, stay present, and appreciate the small things. It's not always easy, but it's an experience that helps you grow every day.

#### Q. Any additional comments?

A. I just want to say thank you to everyone who has made me feel so welcome here. I'm excited for what's ahead and looking forward to continuing this adventure together. Whether you're here for a short stay or part of the long-term team, every role matters, and I'm grateful to be a part of it.



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### Jemma's Stork Project

by Jemma Barrett, PTY



Hi. I'm Jemma, one of the PTYs. My PTY project is on the severely understudied storm's storks (*Ciconiastormi*) and lesser adjutant storks (*Leptoptilos javanicus*). While my university does not require me to complete a project, I thought it would be a great way to spend my time at the field centre, not to mention the fact that I'm improving my conservation and research skills.



LESSER ADJUTANT

My stork project has two main components; monthly transects and opportunity sampling. Every month, since April, I have been out twice a day for six consecutive days to survey various sites along the Kinabatangan River. My research sites are Koyah and Takala tributaries, Kaboi and Danau Girang lakes, and Hillco and Pendirosa plantations. At these sites, I complete a 2km transect by boat or motorbike and I take note of any storks that I spot. For the opportunity sampling, I collect coordinates of any stork sightings, spotted by myself or other members of the field centre. This takes place every day, with no time or location limits; I have been collecting coordinates for storks since March and have over 250 entries so far.

The aim of my opportunity sampling is to form a distribution map for the storks in the section of the Lower Kinabatangan Wildlife Sanctuary surrounding the field centre. I will be able to use my data to display any spatiotemporal trends in the storks' behaviours. For my monthly transects, I am hoping to obtain information on habitat preference as well as trends in behaviour due to changing weather systems; part of my data collection includes taking the temperature, wind speed, barometric pressure, and cloud cover at the time of the survey. I am hopeful that the data obtained by my project will have many useful future applications, given the sheer lack of information on storks, particularly storm's storks, in the Lower Kinabatangan.

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### Niche Partitioning and Squirrels as Bioindicators

By Lindsey Mitchell, MSc (University of Wyoming)

I'm Lindsey Mitchell, a master's student at the University of Wyoming in the Zoology and Physiology program. I'm currently researching the diversity of squirrel and tree shrew species in the Lower Kinabatangan Wildlife Sanctuary (LKWS). My project focuses on two key questions:

- 1. How do different squirrel and tree shrew species partition or share their habitats and resources?
- 2. Can any of these species serve as effective indicators of rainforest health?

Within the 15 squirrel species found in the LKWS, there is an incredible range of diversity from Bornean pygmy squirrels (*Exilisciurus exilis*) weighing just ~ 7g to pale giant squirrels (*Ratufa affinis*) weighing ~ 1.2kg. Though the tropics of Borneo are among the regions with the highest squirrel diversity worldwide and these species contribute essential ecosystem services to rainforests, there is a noticeable lack of scientific research and scientific publications on these species.



Lindsey Mitchell

By evaluating how different squirrel and tree shrew species partition resources and habitats, we aim to fill knowledge gaps about how these species interact with their environment and with one another. This will allow us to understand their habitat and resource requirements. Additionally, identifying an indicator species could provide valuable tools for assessing rainforest health. An indicator species, which is a species that provides insights into ecosystem health, can offer a more efficient and cost-effective approach to environmental monitoring. If an indicator species can be found, this will have implications beyond squirrel conservation, benefiting many other species found in these remaining rainforest fragments. Our data collection will include data from camera traps, live trapping, and transect surveys.

Our findings will offer critical baseline data on the squirrel species and their habitat preferences in Borneo, while also providing a model for using small mammals as indicators of rainforest health in tropical ecosystems worldwide, supporting more informed and effective global conservation efforts. Looking forward to sharing what we learn with you all!



### **MSc Projects on the Malay Civet**

Faith Ellison and Harry Jones, MSc Students from Cardiff

Hi, we are Faith and Harry, and we are studying MSc Global Ecology and Conservation at Cardiff University. Our research projects at DGFC focus on the home ranges, space use and sleeping sites of the Malay civet (*Viverra tangalunga*). Malay civets are small, solitary carnivores that inhabit the tropical forests of Southeast Asia. Despite being relatively common, we still know surprisingly little about how they use their habitat — especially in landscapes where natural forest and restored areas sit side by side. That's where our projects come in. Using UHF satellite collars, we are using remote tracking data obtained by Dr Reza of individual civets to map their home ranges and better understand how they utilise their environment.

# Harry's Project: Sleeping Sites

I am exploring the sleeping sites of the Malay civet. From the GPS data I have ascertained sleeping site locations the individuals were recorded at for long (5-8 hours), stationary periods during the daytime (they are nocturnal so sleep during the day). I cross check these locations with accelerometer data from the collars to ensure little or no movement was recorded for at least 75% of the duration spent at the site. I will use these potential sleeping sites as the basis of my explorations.

I will be conducting habitat assessments and remote sensing at the determined sleeping site locations to establish the key variables they possess. As minimal research has previously been carried out on the species' sleeping sites, I will be looking at a multitude of factors including canopy cover, mid and understorey density, ground cover, deadwood and stone feature density, temperature and humidity to understand what requirements the civets have within day bed locations. These will be compared to control sites that the civets visited but did not select as sleeping sites to determine the importance of the presence/absence of specific variables at sleeping sites.

A key consideration I will assess is the uptake of sleeping sites within restored rainforest compared to the natural, secondary forest. The collared civets' range includes both habitat types, so I am keento explore whether the restored forest sections can provide the required characteristics and features of sleeping sites for the Malay civet. I intend to do this by looking at the proportion of the total range of the civet in each habitat type and to compare this to the proportion of sleeping sites located in each. I also have control sites within each habitat to ascertain any patterns in the presence/absence of particular variables.

## Faith's Project: Space Use and Home Ranges

Hi! I'm Faith, an MSc Global Ecology and Conservation student from Cardiff University, and I am currently spending three months at Danau Girang Field Centre as part of my dissertation research. My project focuses on one of Borneo's more mysterious nocturnal residents – the Malay civet.

Alongside tracking data, I am conducting habitat assessments and looking at resource selection — in other words, what kinds of areas civets choose to spend time in compared to what is available to them. Are they avoiding disturbed areas? Do they prefer dense vegetation? Are restored forests actually being used? These are some of the questions my project hopes to answer. By combining movement data with on-the-ground habitat characteristics, I am aiming to build a clearer picture of civet ecology in a landscape shaped by fragmentation and regeneration.

It's been an amazing experience working at DGFC and getting to follow these secretive animals. I'm excited to see what the final data reveals and hopefully contribute something useful to the growing work on habitat connectivity and restoration here.

# MSc Projects on the Malay Civet Photos:









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# May – June Field Courses



Recently, the field centre had the pleasure of hosting two field courses, welcoming students from both University of Gloucestershire and University of Wyoming.

In May, we received a field course from University of Wyoming. The students encountered an incredible amount of wildlife. They were lucky enough to spot elephants crossing the river during their boat ride to the field centre. Seeing young elephants playing in the water is an unforgettable experience and we were glad it meant as much to them as it means to us! We also had multiple orangutan sightings throughout the week, making it an incredible opportunity for the wildlife photography enthusiasts among the field course!

Each student had their own project within a few plots which were worked on by all the students. By each looking at a different biological variable, the students were able to draw comparisons between the plots and explain how the data collected for one project impacted or explained the results from another. Through this exercise, their understanding of ecosystems as complex and interconnected systems was developed, and considerations were made about how this knowledge could be applied to the cold, semi-arid environment of Wyoming.

Not only did the Wyoming students give their all to the educational aspects of the trip, but they also made sure to fully experience the rich culture that Sabah has to offer. By trying new foods, taking every chance to pick up Malay words and phrases and learning Malaysian songs for Karaoke, they were able to get the best experience possible from their stay at DGFC!



This June, the field centre had the pleasure of hosting two field courses, welcoming students from University of Gloucestershire and Cardiff University (to be highlighted in the next issue of Jungle Times).

The undergraduates from University of Gloucestershire spent an immersive week getting hands on experience of fieldwork in the jungle. Through daily presentations from DGFC's PhD and placement students, they were able to deepen their understanding of the realities of challenges faced when carrying out research in an environment like the Kinabatangan. These lessons were put into practice by accompanying the PhD students on their field work and assisting with their data collection.

A key part of their stay involved using what they had learned to construct arguments to prepare for a debate regarding the necessity and ethics of international field work. Through this thought-provoking conversation, they came to a conclusion where they acknowledged the importance of social and ethical considerations when developing conservation action plans and carrying out research and began to consider their own place in this field.

A highlight for some of the Gloucestershire students was getting the rare opportunity to see Kim, one of the pangolins being tracked, in his burrow while assisting with the pangolin project. They also enjoyed accompanying the team for small mammal handling procedures and traversing the jungle at night to experience Borneo's rich nocturnal wildlife.

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