



The Jungle Times

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Arrivals

Sarah Foster

Sarah is from Cardiff, Wales, and will be volunteering here for 5 months. She graduated from Cardiff University last year with a degree in biology. She has just come from Tokyo where she was there for 3 months doing a lab placement on tissue engineering at the University of Tokyo. After her time here, she wants to stay in conservation biology, and possibly do a Master's degree.



Nikolaj Marggrander

Nikolaj, 26, from Karlsruhe, Germany, took part in the Freiburg field course and will stay for an extra 3 months to volunteer to complete his internship. Nikolaj is doing his Master's in environmental science. After DG, he will do another internship at BUND (Association of Environment and Nature Conservation, Germany) where he will help to care for, and conserve a protected area of land in Germany.



Dr Miriam Kunde

Miriam is from Berlin, Germany and is starting a post-doc with DGFC. Miriam completed her PhD in animal conservation science, specializing in sun bears (*Helarctos malayanus*). Miriam also has a background in media, after completing her Master's in wildlife documentary production. She will be restarting the corridor monitoring program in addition to doing sign surveys, trapping and collaring of Bornean sun bears. She will also assist PhD student David Kurz with catching and collaring Bornean bearded pigs. We look forward to all the exciting research Miriam will produce during her time here!



Visitors

Bakhtiar Effendi Yahya

Bakhtiar is a lecturer and researcher at Universiti Malaysia Sabah, specialising in ants. He was kind enough to join us this month during the Leiden field course, to give a lecture on the ant species present in Sabah. After the lecture, Bakhtiar stayed to give a hand in some of the projects going on at the centre, including the collection of genetic samples of frogs and ant samples! Thank you Bakhtiar for coming and sparking new interest in the diversity of ants around the centre!



Evelyne St-Louis

Dave's girlfriend Evelyne, a city planner living in California has also joined us at the centre this month, after going on holiday to Vietnam, and the tip of Borneo with Dave. Evelyne was hoping to see a pig collaring, but has had to settle for seeing maroon langurs and getting hands on with Dave's fermented corn bait!

Departures

Juan Manuel Aguilar Leon (Juanma)

This month we are all very sad to be saying goodbye to Juanma, who has just finished his final round of field work for his PhD. Juanma has been here since September collecting genetic samples from frogs in different habitats along the Lower Kinabatangan, and now will return to the UK to complete his lab work. We'll all miss Juanma's positivity, enthusiasm and his sexy accent. We wish Juanma all the best with his studies, and good luck to him and his wife-to-be on their upcoming marriage!



Leiden University



The first field course of the year, Leiden University, returned to DGFC for two weeks. The field course was led by Professor Menno Schilthuizen and Dr Jeremy Miller. The Leiden group got involved in many projects being undertaken here at DG such as tracking the slow lorises, helping the PTYs with their projects and tracking the tagged pythons. They also got the chance to explore some of the caves here on the Kinabatangan! During the field course, students undertook their own projects with titles including: “Herb species composition and ethnobotany in the Lower Kinabatangan”, “Fish diversity in the Lower Kinabatangan River habitats” and “The mystery of the red and blue *Opadometa* male”.

Leiden University contd.

“Thank you so much for all the amazing experiences, your patience, hospitality, the fun, the soccer, delicious meals, the adventures and inspiration! You are all doing amazing, important, inspiring and awesome work! I wish you all the best and the crazy good fun adventures in the future!”



“Thank you for these unforgettable two weeks! Really cool, helpful and knowledgeable research assistants, great kitchen staff, and great Cardiff group with awesome projects! Your help was greatly appreciated. I wish you the very best!”

“These two weeks were amazing! Thank you for having us and showing us the beautiful and colourful wildlife! All the researchers are inspiring and fun. Best wishes and good luck with your future studies. See you and I would love to come back one day!”



Freiburg Field Course

Freiburg University came from the 5th to the 19th of March. During their course, they took part in a lot of activities such as night walks and exploring Batangan's swamp and caves. They also built pitfall and funnel traps to catch and identify small reptiles and invertebrates around the centre, as well as following all of the projects ongoing at DGFC.

They set up a transect and monitored it with camera traps and saw a lot of wildlife including macaques, monitor lizards, bearded pigs, proboscis monkeys and an orangutan!

Professor Johannes Penner gave a demonstration on the catching and handling of snakes and skinks, and fellow instructor Markus Handschuh lead a session on birding. They also had a lecture on bats and used an ultrasonic recorder to listen to the surrounding bat calls.

This was the first time they have visited DGFC and we hope to see them for many years to come!



Science Papers

Herd demography, sexual segregation and the effects of forest management on Bornean banteng *Bos javanicus lowi* in Sabah, Malaysian Borneo – Endangered Species Research

Katie L. Journeaux, Penny C. Gardner, Hong Ye Lim, Jocelyn Goon Ee Wern, Benoit Goossens

After the extinction of the Sumatran rhino, the Bornean banteng is now the rarest mammal in Sabah. Primary threats to the banteng include habitat fragmentation and conversion, poaching and increased risk of disease transmission from domesticated cattle. Data was collected via camera traps, these revealed interesting behaviours of the banteng. Banteng were found to need large forests to avoid anthropogenic disturbances and to maintain large herd sizes, which are crucial for maintaining social behaviours. 183 banteng, of herd sizes ranging from 1 to 21 individuals, were identified across 6 forest reserves. Herd sizes fluctuated based on habitat type and forest regeneration ages.

Protected area management priorities crucial for the future of Bornean elephants - Biological Conservation

Luke J. Evans, Gregory P. Asner, Benoit Goossens

Degraded habitats are often viewed as low quality, however research carried out by DGFC's Luke has shown the use of these habitats for the Bornean elephant. These degraded habitats may become prime candidates for conversion to agricultural purposes, and therefore it is necessary to discover their importance before they are lost. A combination of GPS telemetry of 29 elephants and LiDAR was used, these revealed that forests of short stature as well as flat, low-elevation habitats were ideal for elephants. This habitat provides elephants with an energetically low habitat with plenty of feeding opportunities, due to the increase in understory vegetation from the disturbed canopy.

Edge effects of oil palm plantations on tropical anuran communities in Borneo - Biological Conservation

Sarah A. Scriven, Graeme R. Gillespie, Samsir Laimun, Benoit Goossens

Amphibians are typically sensitive to environmental disturbance, therefore making useful indicator species. In this new study from DGFC, edge effects from oil palm plantations are shown to have serious impacts on forest composition of frogs for up to 4km. Species richness was higher in forest areas than plantations, with species richness declining as proximity to forest-plantation interface increased, and as canopy density decreased. Frog composition differed between plantation and forest, terrestrial species dominated plantations, whereas, endemic and arboreal species were more abundant in forest. In order to lessen the impact of edge effects on forest habitats, sizes of patches and width of corridors need to be increased.



Spotted Fever Rickettsiosis in a Wildlife Researcher in Sabah, Malaysia: A Case Study – Tropical Medicine and Infectious Disease

Salgado Lynn *et al.*

Despite spotted fever group rickettsiosis (SFGR) having been reported as the most prevalent cause of rickettsiosis in rural areas of Sabah since 1980s, this new paper describes the first detailed case report of suspected SFGR in the state. Rickettsial diseases are among the leading causes of treatable acute febrile illnesses. Diagnosing rickettsiosis is difficult for even experienced physicians as symptoms vary depending on the rickettsial species involved. After initial unsuccessful tests for tropical diseases, rickettsiosis was suspected after the patient's response to therapy. SFGR was confirmed by using an indirect micro-immunofluorescence assay followed by a serological examination and western blot of SFGR members.

Lurking in the dark: Cryptic *Strongyloides* in a Bornean slow loris – International Journal for Parasitology: Parasites and Wildlife

Frias *et al.*

The lack of study into genetic diversity within parasitic genera has led to organisms infecting similar hosts, and so having similar morphologies, to be grouped as one species. *Strongyloides* is a soil-transmitted nematode present throughout Asia and Africa, and it has been estimated to infect hundreds of millions of people worldwide. This study describes a case of infection of *Strongyloides* in a Bornean (Philippine) slow loris (*Nycticebus menagensis*) in the Lower Kinabatangan Wildlife Sanctuary, Malaysian Borneo. Within this area of great diversity of primate species, faecal samples were collected from five of these species, and the nematode larvae present were analysed. The results show that *S. fuelleborni* infects all haplorrhines sampled in this community, a different species may be infecting slow loris, the only strepsirrhine in Borneo.

Conservation Corner:

**Common name: Great Slaty
Woodpecker**

**Scientific name: *Mulleripicus
pulverulentus***

IUCN status: Vulnerable



Description and Ecology:

The great slaty woodpecker is one of the largest woodpeckers in the world, with a distribution range across Northern India and a large majority of Southeast Asia. They typically live in family groups over large home ranges, and forage on invertebrates living in trunks and branches.

Woodpeckers provide a valuable service in forest, whereby they create tree cavities which birds and other taxa use for sleeping and nesting.

This woodpecker species prefers large primary forest stands, but can survive in secondary forest in lower population densities. Destruction of primary forest is the leading cause in its decline, with estimates of population fall of 30-50% over the past 20 years.

Guess the Nest

Can you guess which animal made which nest?

1



2



3



- A) Monitor Lizard
- D) Clouded Leopard
- G) Lesser Adjutant

- B) Sun Bear
- E) Crocodile

- C) Orangutan
- F) Bearded Pig

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.*

Danau Girang Field Centre

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