



The Jungle Times

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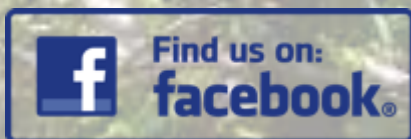
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Arrivals



Amie, who previously visited DGFC last year as part of the Kent field course, returned on the 13th April as a volunteer for 3 months. She is a 3rd year undergraduate student studying BSc (Hons) Wildlife Conservation and decided to come back to DGFC to expand her field experience. She is no stranger to field work though, having previously volunteered in South Africa and Namibia. She is assisting with a variety of the projects and is looking forward to gaining new skills and putting those she has already acquired into practice. She loves volunteering at DGFC and is excited to learn more about the fascinating ecology that Sabah has to offer!

Visitors

At the beginning of the month DG hosted the family of PTY Angus Chaplin-Rogers. Simon, Carol, Lili and Jamie came to visit him for 4 days and were a great help with his project as well as helping Meg to set her traps. They left DG to continue their trip onto Danum valley.



Rob and Lawrence Chandler friends of PTY Francis Roy stayed here for 6 days tirelessly taking part in all DG had to offer. While providing invaluable help assisting the set up of Frankie's new camera trap grid.



Jannes Vahl, a close friend of volunteer Hannah Emde, travelled from Germany to help her out in her final week in the field. We wish them both a pleasant onward journey!



Evaluating methods for estimating home ranges using GPS collars: A comparison using proboscis monkeys (*Nasalis larvatus*)

This paper, featuring DGFCs own Danica Stark as first author, compared grid-cell method with three newer techniques: biased random bridges, adaptive local convex hull (a-LoCoH) and adaptive time local convex hull (T-LoCoH).

The grid-cell method is one of the most commonly used home range estimation method. By overlaying a grid onto the GPS points, the home range is estimated by counting the number of squares in which points are present. However, rapid advances in GPS technology require a more extensive analytical technique.

LoCoH calculates the convex hull around each GPS fix based upon its closest neighbours. A density isopleth, formed by merging hulls together, is then created. T-LoCoHs adds temporal information (time recordings) to the basic LoCoH analysis. Biased random bridges, a development of kernel density estimation that combines serially correlated GPS fixes (GPS fixes in relationship to time intervals) with drift, and can use high frequency activity data to estimate habitat use.

This study, using proboscis monkey data collected by Danica, revealed that biased random bridges had the best overall performance for the proboscis monkey data, estimating a proboscis monkey home range of 24-165ha (mean 80.89ha). Grid-cell method and both LoCoH methods had their advantages, including simplicity and excellent barrier identification, respectively, but with lower overall performance.

Stark, D., Vaughan, I., Ramirez Saldivar, D., Nathan, S. and Goossens, B. (2017). Evaluating methods for estimating home ranges using GPS collars: A comparison using proboscis monkeys (*Nasalis larvatus*). *PLOS ONE*, 12(3), p.e0174891.

PhD Update: Monitor Lizard

The month of April saw Sergio taking a break from sampling monitor lizards in the forest around DG to work on the genetics component of his PhD. This month, the focus of Sergio's lab work was on sexing his lizards. To ensure he was correctly separating males and females, lizards kindly supplied by Lok Kawi Wildlife Park were taken to Sabah Animal Medical Center for X-rays and ultrasounds. Male and female monitor lizards have subtle differences in their morphology, with breeding males possessing an epi-penis, barely visible under X-ray. Breeding females possess follicles present above the bladder, visible under ultrasound. There were some odd looks from locals as very large lizards were brought into the clinic!

With help from the kind staff at the centre, three lizards were successfully sampled, with multiple X-rays and ultrasound images captured. This gives Sergio crucial information as he continues his work, sexing the 400+ lizards he has sampled over the last 4 years. Monitor lizards are widely regarded by reptile experts as one of the hardest species to sex, so we wish Sergio the best of luck!

We would like to extend our thanks to Dr Rosa Sipangkui and Lok Kawi Zoo's staff as well as Dr. Pamela Carandre Jairoa of Sabah Animal Medical Center and our PTY Jack Devlin for their help during this process. Without them, this work would not have been possible.



An ultrasound of one of the monitor lizard, potentially showing the breeding follicles present in mature females.



An adult monitor lizard. Photograph by Rudi Delvaux.

Cornwall College Field Course

Eleven students and three staff from the Center of Applied Zoology at Cornwall College spent their annual 10-day field course with us during April. Despite the daily downpour they continued to collect data on birds, primates and frogs to add to their longitudinal data sets. Additional investigations for 2017 were all-night frog surveys to assess whether abundance and diversity change throughout the night with temperature and humidity. Some new crustacean traps were successfully used to catch prawns in the oxbow lake.



Conservation and Ecology student Terri said “It’s been astounding to see the range of wildlife the river and forest support despite the fragmentation”. BSc Applied zoology student and conservation ecology student Lucie was overwhelmed to see our frequently visiting orangutan and baby.

Dr Angus Jackson, the expedition leader, commented “We always have a memorable time with the team at DG, 2017 will be remembered for the rain, the new fish species and the privilege of seeing the forest through the night” They leave DG to continue on the next phase of their expedition surveying coral reefs on Mantanani Island. See you next year!!



Goodbye's

Kyle Hendrikson

On the 4th of April we said goodbye to our nocturnal primate volunteer. Kyle worked extremely hard on the NPP, conducting 6 hour night follows of our collared slow lorises and tarsiers. Not only was he essential to the NPP, he also contributed heavily to all of the other projects we have going on at DG. We hope to see you again soon Kyle!



Crystal Schalmo

Crystal spent two months volunteering at DG, she was enthusiastic, hard working and always brought a positive attitude to each project. She spent a lot of her time helping PTY student Jack with his insect identification, using her entomology experience.



Goodbye's cont..

Hannah Emde

Hannah departed DG on the 24th of April. The vet student shadowed Sergio, our resident vet, on the Biawak and Small Carnivore projects during her 8 week stay. Hannah is now back in Germany for a one month internship before she jets off to central America to continue learning about veterinary practice in Mexico and Costa Rica! Her shining personality brought smiles to everyone at DG and she will be dearly missed.



Conservation Corner:

Common name: Lesser Adjutant

Scientific name: *Leptoptilos javanicus*

IUCN status: Vulnerable



Description and Ecology: Spread across Southeast Asia, the lesser adjutant inhabits open and forested wetlands. While coastal populations thrive among mangroves and intertidal flats. One of the largest birds in Borneo the Lesser Adjutant is typically 110-150 cm tall with a 210-250 cm wingspan.

Leptoptilos are frequent scavengers, and the naked head and neck are adaptations to this, as a feathered head would become rapidly clotted with blood when scavenging a carcass. Unfortunately a major threat to the lesser adjutant is the capture of young chicks to be fattened up for celebrations or feasts.

Threats:

- Hunting pressure
- Conversion and degradation of wetlands
- Loss of nesting trees

Conservation:

- Protect nesting colonies
- Expand conservation awareness
- Limit degradation of wetlands

Sukau Bridge cancelled!

Everyone at DG was ecstatic to hear that the Chief Minister of Sabah has announced the scrapping of the proposed project to build a second bridge across the Kinabatangan. NGO and Civil society groups involved in the bridge applauded the difficult decision as one that was made after hearing all concerns and opinions.



The controversial bridge was proposed to provide better access to the Sukau area, but would have done so at the cost of fragmenting a key forest corridor used by a plethora of species such as Bornean elephants, orangutans, clouded leopards and sunbears. A crucial factor for the decision of the bridge was a private letter written by famous naturalist Sir David Attenborough to the Chief Minister of Sabah Musa Aman. Attenborough's public stance against the bridge helped the Sabah government realise the fragmentation of the lower Kinabatangan is not just Sabah's problem but a global issue.

We hope that the money for the proposed bridge can be put into improving the existing infrastructure of the Sukau area, and that this decision is a step in the right direction for a future where the tourism and palm oil sectors can work together. With an aim to get the people of Sabah more connected with their wildlife and hopefully more invested in its welfare.



US Ambassador Visit

On the 3rd of April we had the pleasure to welcome the new US Ambassador to Malaysia, HE Kamala S. Lakhdhir at our field centre. She was accompanied by Mr Frank Whitaker, Public Affairs Officer, Mr Mike Cavey, Assistant Public Affairs Officer, Miss Shanon Phang, Cultural Affairs and Mr Hisham Selamat, media.

We used this opportunity to share our work with her excellency with informative talks about the status of the Sabah's forest and its wildlife, Her excellency was even able to get a hands on look at DG's current reptile program with a handling session of a 4.1m male reticulated python that had been tagged with a GPS tracker.



DG hopes to solidify the excellent relationship we established almost 4 years ago with the previous ambassador, HE Joseph Yun. Also present was Senior Wildlife Officer for Kinabatangan, Mr Jimli Perijin.



Photos of the Month!



Photos by Angus Chaplin-Rogers

Who am “eye”?

Can you figure out the type of animal each of these 6 different eyes belong to?

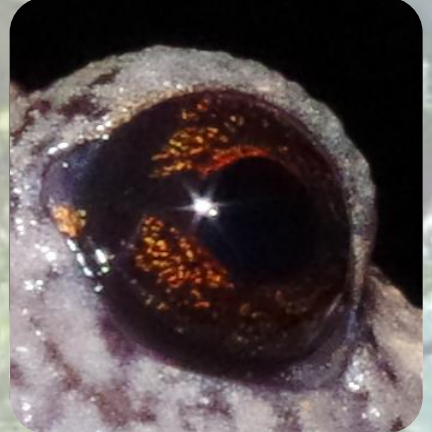
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B



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E



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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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