The Jungle Times

Independent newsletter of: Danau Girang Field Centre Est. 2008 Issue: 99

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Arrivals

Three new PTYs have been welcomed to DGFC during this month. Max and Jasmine arrived 1st July with the Cardiff University Field Course and settled in learning skills alongside the field course as well as learning from previous PTYs Jack and Angus. Max and Jasmine are both zoology students with Jasmine potentially looking to do a project on primates whereas Max is interested in hornbills and the small carnivore project.

Luke arrived 20th July and is a genetics student looking to do a project on one of the many bird species here. Luke will also be spending some time in the laboratory in Kota Kinabalu. All three have already seen some fantastic species with plenty more to see over their year here.

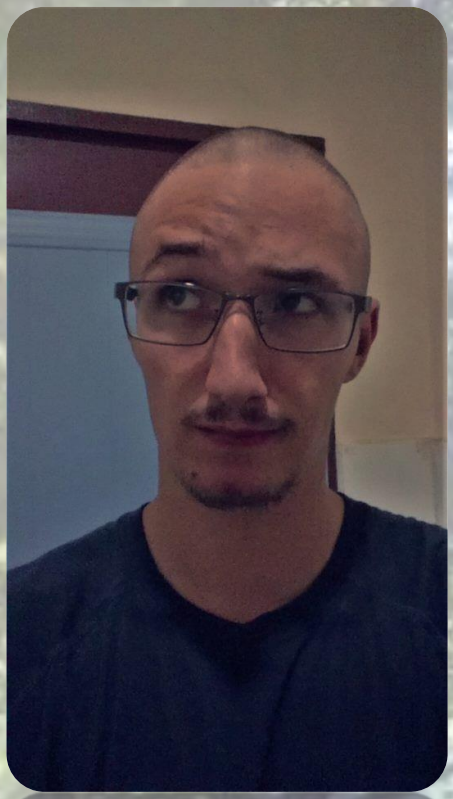
Also joining us as a volunteer for two months is Owen, a biology student from Cardiff looking to experience some of the work done at DG.

Left to Right:
Owen
Jasmine
Max
Luke

Goodbyes

Jack James Devlin (aka Stu)

It is with heavy hearts we say goodbye to PTY Jack after finishing his year at DG. Jack conducted an extensive survey of the arthropod diversity found in the forest around the centre, as well as gathering many samples for future genetics. We will miss Jack's enthusiasm for anything with more than four legs and the interest he showed in all the PhD projects conducted here. We wish him all the best with his onward studies and hope he is able to return soon.



Anya Tober

Anya also left us this month after returning as a Masters student from being a PTY previously. She was studying parasitology in domestic cats and civets for her Masters. Anya and her baking skills will be greatly missed. We wish her the best of luck for the future!

Coline Monchanin

After two months we bid farewell to Coline. She has been assisting with all the projects at DG but was epically helpful with Kasia's small mammal trapping; braving the gruelling conditions to get to her plantation trapping sites! Coline is going with the intention of conducting a PhD on honey bees and is currently in the process of applying to one in Australia!

Kasia Majewski

Everyone is sorry to say goodbye to Kasia this month. Kasia has spent the last half a year assessing the prey diversity of Sergio's monitor lizards in their core and transient ranges. Kasia will now use this data to write her master thesis. During her time Kasia made firm friends with everyone, regularly offering help and support to any that needed it. We hope this is not the last we'll see of her as she is always welcome at DG!

Visitors

On Tuesday 25th we were joined by Benoit, Milena and Naollin, and several of their friends for 4 days.

The guests included Pablo OtW returning with his girlfriend Amy Baldwin, who works on amoebas in Cardiff University. Two of Benoit's former colleagues also came to visit; Erika Latowe-Baus and her family from Belgium as well as Lounes Chikhi and his two children. Erika worked with Benoit in Cardiff and is now working in Belgium teaching molecular biology. Lounes currently works in Madagascar on population genetics of lemurs. Also visiting was Damian Taguena, a friend of Milena from high school, and his family. Damian is the Consulate General of Mexico in Hong Kong and Macao SAR.

Everyone spent time out on the river and in the forest looking for or tracking animals, including following along to catch pythons while on the night cruise, night walks through the forest, and finding slow loris sleeping sites. Lounes also gave an excellent presentation to everyone about his work in Madagascar.

We met up with Damian and Lounes to ask them a few questions.

Interview with Lounes

Could you tell us a bit about your career

"I am a biologist and did my PhD in population genetics on two fish species that were fished and eaten, tropical sardines of genus *Sardinella*, that led me to work in Ivory Coast, Congo, and Senegal. The kind of question I've always been interested in is using genetic data to understand population structure, how genetic diversity is shown in space, How it came to be now and the history in populations and I became interested in its methods to reconstruct that history.

I decided to move to the UK to do another post doc and where I was looking for people interested in these kind of questions, something between demographic history, modelling, producing the data and this is how I met Benoit, Mike Bruford and Mark Bowen at the Institute of Zoology and I stayed in the UK for a bit between the IOZ and then Queen Mary and Westfield college with Richard Nicholls and then University College of London. I was never working on a particular species but much more interested in the data.

I started being courted to Madagascar as one student was keen on working in Madagascar and then I said I could help supervising, help writing PhD project and then I wrote a research project that allowed that to work"

So your interests are more in the work of any species or did primates have a big influence on your work?

"Yeah, primates did have a big influence, in particular the work with Benoit on the orangutans but my work is more question focused. Whenever you start working on a group of organisms you become fascinated with them in the same way that if you start working on a question you end up fascinated because these things are always exciting."

Interview with Lounes Continued

What is your favourite thing about DG?

"I cannot say the canteen I guess? It's very refreshing in the sense that when you stay here you really have time to think about conservation, about issues, about what's out there as you are far away from all the things in usual life and it makes very easy access to amazing biodiversity in a safe way but at the same time you are so far away you can really question life, question what's going on and its really refreshing intellectually, and in a ethical way allowing you to think."

Have you always wanted to work in Madagascar?

"No, I have to admit no, it was an accident of life but a good accident because its really a young student called Anna who wanted to work on a species and it was like yeah I can help you because she was looking for a supervisor and I liked her very much as she was nice and very active, this was 2004/5 and she was working in the labs as a technician and had a good molecular background but not a population background but she was interested in these lemurs and she had done all the work herself, contacting an NGO, the field work and so she was really somebody you really think you should help because she wants to do something. Unfortunately we couldn't get funding for her, then later she had to move to something else but then we got funding and someone else came in who was also fascinated in Madagascar so really she started it"

For anyone who wants to pursue a career in population genetics, do you have any advice?

"There are many ways of doing it, not one type.

Population genetics is a huge world and there are highly theoretical things or there are much more practical things such as the surveys of the populations and everything in between such as lab work. I personally think in general that you should still have some quite good quantitative skills and be independent that you can ask a question you want to know or be able to know who to ask to thing you need to know because if you don't have the quantitative skills you depend on things you don't really understand as a lot is about data analysis."

Interview with Damian

Can you tell us a bit about your career?

"I'm in the Mexican career Foreign Service, so that means you pass an exam early on, which I did after my masters, then you go from place to place as they ship you around and you're a sort of permanent bureaucracy of the state representing Mexico abroad and then you go back and do policy work. I've been doing that for 16 years."

What activities have you been up to since you've been at DG?

"I have been following my kids around a lot, we are obviously interested in the place but the main thing was to get our kids who are very much city dwellers, a little bit outside of that. We've just been asking them what they want to do, and whatever they say, we just encourage them to do it, making sure we don't break anything in the process."

What's been your favourite thing about staying here?

"The overall experience is really great, from just the last time we saw stars like this, because the light pollution is so bad (in Hong Kong), obviously going down the river is great, stepping outside of the boat. If you could have hot water, but the cold showers do wake you up."

Have you always been interested in the conservation of animals?

"Maybe I could link that up to the other thing. So they ship you around from one issue to the other, so I did my masters in the Mexican-US relationship, but you touch different environmental issues as you go around so I have been interested in conservation. So between Mexican-US we worked on water management issues in the Colorado River

I was part of the climate change association team so we hosted the climate change conference in 2010

Now in Hong Kong I try to promote corporations especially in wildlife trafficking because Hong Kong is a hotspot of wildlife trafficking."

Cardiff University Field Course

On the 1st of July, a group of field course students arrived from Cardiff University led by Benoit, Mike Bruford and Pablo OTW. Suzanne Tomassi also accompanied again this year to assist the field course with birding, including the use of mist nets. Over the 2 week field course, the students participated in several activities which helped them form their own research projects and get a taste of the research that is carried out at the field centre. These activities included tracking slow loris sleeping sites, primate boat surveys, botanical plot surveys, learning entomology and how to catch and mount butterflies, and night walks as well as helping with research carried out on skinks and monitor lizards. The students also had the opportunity to go up onto the 18m high canopy platform.

Cardiff University Field Course

The students then had the opportunity to design and carry out their own research projects. Projects focussed on bats, primates, shamas, skinks and pitfall traps.

Saphy- “Dear DG, This has been such a valuable and special few weeks of my life and has helped tick off Borneo on my bucket list (which I made at age 5). The team has been wonderful and I appreciate all the help and care. Thank you personally and thank you for saving the wildlife with your crucial research!”

Krista-“It has been an invaluable fortnight and I shall treasure these memories always”

Freddy-“Like living in a zoo!”

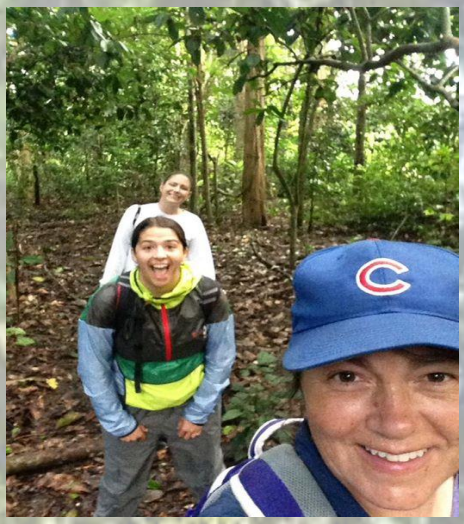
Miami Field Course

This month, we welcomed the Project Dragonfly field course from Miami University in Ohio! Before arriving at Danau Girang, the group stayed in Sukau where they saw the elephants, with some seeing an elephant swim across the Kinabatangan river!

At DG they had tasters in many of the projects being undertaken here, such as the nocturnal primate project, Angus' pitfall trapping, as well as having the opportunity to go on boat surveys and to go up the canopy platform. They then had the opportunity to produce their own mini projects which included vertebrate diversity and the distribution of an important animal feeding tree in wet-dry plots.

Miami Field Course Continued

"Thank you so much for opening your "home" to us and for allowing me to be a part of this community for the last six days. It has been incredibly eye-opening to see the work you do here and I am walking away with a new-found appreciation for your research, for conservation, and for your incredible dedication to this field. Thank you again for everything!" – Emily Feller



"Thank you all so very much for all your kindness and hospitality. You are all such wonderful people and scientists and you all should be very proud of yourselves and the work that you do. You and your staff made this place feel like home. I wish you all the very best and hope to see/work with you in the future" – Gina Vaira

"Thank you to everyone here at DG, while research isn't really my thing, I was absolutely thrilled to have a firsthand understanding of the work you all do here. Thank you for opening your doors to us, and for being so accommodating! You guys are absolutely amazing and inspiring. Keep up the stellar work!" – Hannah Black

Science Corner - Published Papers

Underproductive agriculture aids connectivity in tropical forests

Luke Evans and Benoit Goossens along with Gregory Asner have published a paper, in Forest Ecology and Management, on an alternative process for producing wildlife corridors. Typical approaches include purchase and maintenance of land which can lead to great expense. In this paper, natural regrowth of abandoned agricultural land was assessed after a 17-year period to see if the land is suitable as a corridor for Bornean elephants. Despite flooding areas hampering regrowth, approximately 79% canopy coverage was achieved and there was increasing usage by elephants showing this technique is a useful alternative.

Jumping in the Night: An Investigation of the Leaping Activity of the Western Tarsier (*Cephalopachus bancanus borneanus*) Using Accelerometers

David Constantini and Manrico were joined by Benoit and Danica in investigating the use of accelerometers on western tarsiers. Published in Folia Primatologica, the data showed that leaping activity was comparable to direct observations described previously. This displays that using accelerometers provides a less demanding technique of gathering classic field observations and in addition to this, two patterns of leaping activity were seen. The accelerometers were attached to two tarsiers which had already been collared with the collars providing ideal attachment sites for the accelerometers.

The first recorded activity pattern for the Sunda stink-badger *Mydaus javanensis* (Mammalia: Carnivora: Mephitidae) using camera traps

Former DGFC PTY Stephen Vickers, along with Meaghan Evans, Mohd Soffian Abu Bakar and Benoit Goossens have a new publication this month in Raffles Bulletin of Zoology. The publication identified that the encounter rate in the Lower Kinabatangan Wildlife Sanctuary (LKWS) is lower than in other regional studies that have lower levels of anthropogenic disturbance, which could possibly indicate that higher levels of anthropogenic disturbance in the LKWS may pose a potential negative effect on this small carnivore species.

Combining drones and satellite tracking as an effective tool for informing policy change in riparian habitats: a proboscis monkey case study

DGFC members Danica Stark, Luke Evans and Benoit Goossens have a new publication this month in Remote Sensing in Ecology and Conservation. The publication emphasises the importance of the riparian zone for the proboscis monkey. Drone images revealed that felling occurred on the river's edge, which is against water resources laws of requiring riparian reserves of 20 m. After this discovery, a press release that uses the combination of drone imagery and GPS data was published showing the link between habitat destruction and the loss of the economically important species for the tourism industry in Sabah. The publication states that combining satellite and GPS data is a potentially effective tool for conserving important, endangered and iconic species.

First integrative trend analysis for a great ape species in Borneo

DGFC director Benoit Goossens, amongst many other scientists, had a publication this month in the journal Nature. The study was applying new methods for integrating field and interview survey data for the Bornean orangutan which is critically endangered. This is in order to further understand the rates and causes of population decline in this species, which is often difficult to accurately assess.

The study demonstrated that Bornean orangutan populations have declined at a rate of 25% over the last 10 years. Survival rates of the Bornean Orangutan are lowest in areas with intermediate rainfall and are lower in areas where surrounding forest has been recently transformed into industrial agriculture. The authors concluded that their study shows the urgency of determining interventions possible to combat the decline and causes of the Bornean orangutan.

Conservation Corner:

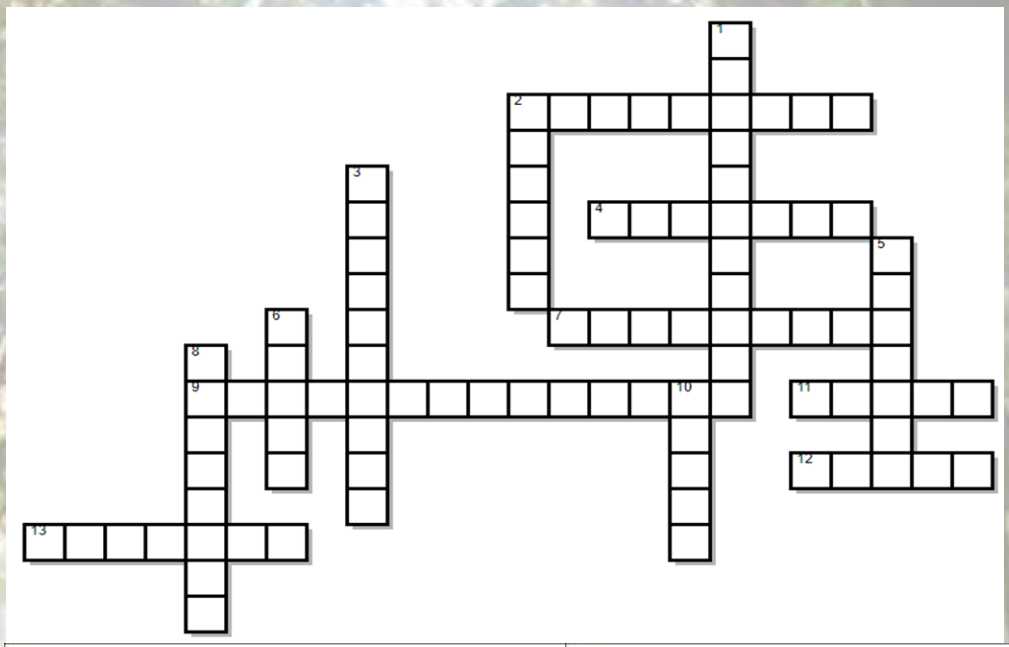
Common name: Bornean Bay Cat
Scientific name: *Catopuma badia*
IUCN status: Endangered

Description and Ecology:
The Bornean bay cat is an elusive nocturnal cat, with head-to-body length from 49.5-67cm with a 30.0-40.3cm long tail. This endangered felid is endemic to Borneo and can be found in dense tropical forests, as well as logged forests and some close to the coast. There is a projected population decline of more than 20% by 2020 due to habitat loss, with current effective population sizes of below 2,500 individuals. Due to the mysterious nature of this animal, little is known about its feeding ecology and reproductive behaviour.

Conservation:
- It is fully protected by national legislation in most of its range
- Listed on CITES Appendix II
- Hunting and trade are prohibited in Sabah, Sarawak and Kalimantan

Threats:
- Habitat loss
- Illegal pet trade

Bornean Animal Crossword!



Across

2 This snake which forms defensive coils and strikes like a viper when threatened

4 Bees, beehives and honey are an important food source for this mammal

7 Primate whose name translates to 'person of the forest'

9 Has the common name 'snakebird' because of its appearance when hunting

11 Bird that mimics other birds

12 Small squirrel species which mainly eats lichens and mosses (_____ squirrel)

13 The only extant strictly carnivorous primate

Down

1 Mammal native to Indonesia and Malaysia with anal scent gland which can spray up to 15cm

2 Ambush predator sometimes confused with stick insects

3 This insect

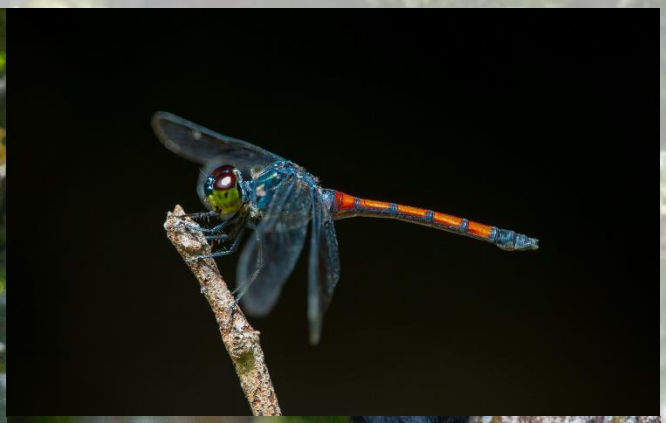
5 The name of this carnivorous mammal which morphologically resembles a cat, was wrongly translated from Javanese as 'otter' in English dictionaries

6 Generally carnivorous small reptile which loves digging and burrowing

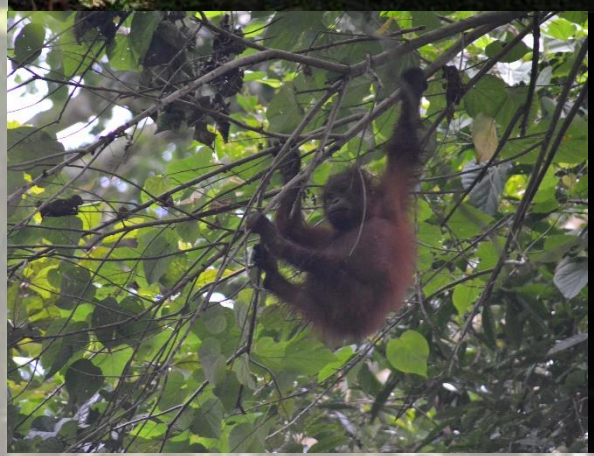
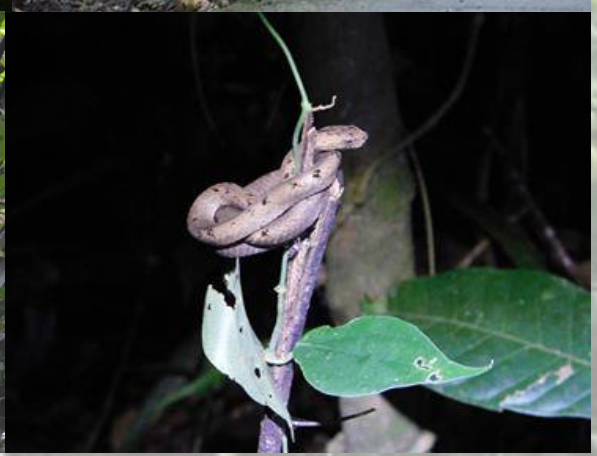
8 Name meaning 'little fly' in Spanish

10 White bird which develops fine plumes during breeding season

Answers: 1) Stink badger
2)(Across) Mock viper
2)(Down) Mantis 3)
Lantern bug 4) Sun bear 5)
Linsang 6) Skink 7)
Orangutan 8) Mosquito 9)
Oriental darter 10) Egret
11) Shama 12) Pygmy 13)
Tarsier



Photos by Luke Davies, Max Lawson and Eleanor Rankin

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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