



The Jungle Times

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Visitors



Alexis de Roode and Anne Broeksma

Alexis and Anne visited DGFC to write an article on the work our scientists carry out every day, as well as Sabah's amazing wildlife. They are now heading to Tawau to continue article research and then to Bali where they will spend 6 months relaxing and writing.

Peter Jaeggi

Peter, from Switzerland, payed Danau Girang a short visit to conduct interviews for radio programmes SRF, SWR2, and ORF. Our Scientific Officer, Miriam talked about sun bears, and PTY Lil spoke about her project on hollows.





Five boys from UWCSEA (International school in Singapore) visited DGFC for a mini field course as part of their grade 11 education. They took part in camera trapping, PTY projects, and river cleans.



Danau Girang Field Centre wishes them luck in their end of year exams and future careers!



Freiburg Field Course

The first field course of the year! Freiburg university visited DGFC for 2 weeks, from the 18th March to the 1st April. During their stay, they took part in many activities including night walks, primate boats and exploring Batangan's swamp and caves. They also built pitfall and funnel traps to catch and identify different species around the centre, as well as setting up mist nets to catch birds and bats down by the jetty with leader Dr. Kim Mortega. Professor Johannes Penner also gave a demonstration on the catching and handling of snakes and skinks. Along side all these exciting activities the students also carried out some projects of their own. Ranging from investigating different micro habitats to catching and identifying frogs.



Annual General Meeting

This month all DGFC staff including the KK team met at the field centre to discuss issues, projects, changes, and future endeavours. Everyone engaged in discussion and then enjoyed a series of team building games (congratulations team Thunder!). A special thank you to everyone involved, especially the chefs who prepared a delicious meal and the game organisers from the KK team.



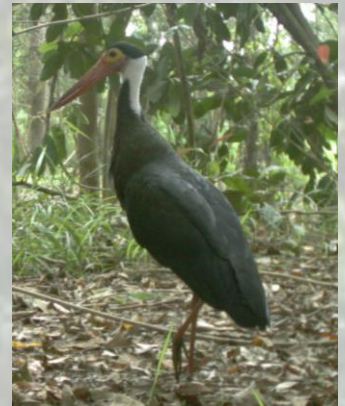
Conservation Corner

Storm's Stork (*Ciconia stormi*)

The Storm's stork is thought to be the rarest of all stork species, listed as Endangered in the IUCN Red List, with populations rapidly decreasing in line with deforestation. The bird is known to breed in Sumatra, Peninsula Malaysia and throughout Borneo. The mighty Kinabatangan is a great place to spot this enigmatic bird, and thought to be one of the remaining strongholds for the species.

Generally they are a solitary bird, though they have been known to soar on thermals with conspecifics - some of our team were lucky enough to witness a group of 11 individuals circling together above the river this month!

It is commonly confused with the closely related woolly-necked Stork (*Ciconia episcopus*), though is easily distinguishable from its bright red beak and legs, and yellow eye orbital.



SCIENCE CORNER

Jennifer Brunke, Ute Radespiel, Isa-Rita Russo, Michael W. Bruford, Benoit Goossens. 2019. Messing about on the river: the role of geographic barriers in shaping the genetic structure of Bornean small mammals in a fragmented landscape. *Conservation Genetics*

To predict the persistence of populations and to formulate adequate conservation measures it is essential to understand the ability of species to transverse landscape barriers. Using population genetic techniques the importance of physical barriers along the Kinabatangan River were assessed for a suite of non-volant small mammals. The findings suggest higher genetic connectivity on the more continuously forested compared to the more fragmented riverside, and underline the importance of forest corridors as essential conservation measures to maintain genetic diversity in a fragmented landscape such as that along the Kinabatangan River.

Liesbeth Frias, Danica J. Stark, Milena Salgado Lynn, Senthilvel Nathan, Benoit Goossens, Munehiro Okamoto, Andrew J. J. MacIntosh. 2019. Molecular characterization of nodule worm in a community of Bornean primates. *Ecology and Evolution*

In this study, it was investigated whether strongyles found in Bornean primates are the nodule worm *Oesophagostomum* spp., and to what extent these parasites are shared among members of the community. Using molecular markers, it was identified that the strongyles infecting this primate community were *O. aculeatum*, the only species of nodule worm currently known to infect Asian nonhuman primates. Surveys targeting human populations living in close proximity to nonhuman primates could help clarify whether this species of nodule worm presents the zoonotic potential found in the other two species infecting African nonhuman primates.

SCIENCE CORNER

Danica J. Stark, Kimberly M. Fornace, Patrick M. Brock, Tommy Rowel Abidin, Lauren Gilhooly, Cyrlen Jalius, Benoit Goossens, Chris J. Drakeley, and Milena Salgado-Lynn. 2019. Long-Tailed Macaque Response to Deforestation in a *Plasmodium knowlesi*-Endemic Area. *EcoHealth*

Land-use changes can impact infectious disease transmission by increasing spatial overlap between people and wildlife disease reservoirs. In Malaysian Borneo, increases in human infections by the zoonotic malaria *Plasmodium knowlesi* are hypothesised to be due to increasing contact between people and macaques due to deforestation. To explore how macaque responses to environmental change impact disease risks, we analysed movement of a GPS-collared long-tailed macaque in a *knowlesi*-endemic area in Sabah, Malaysia, during a deforestation event. During deforestation, changes were observed in macaque troop home range size, movement speeds and use of different habitat types. Results of models were consistent with the hypothesis that macaque ranging behaviour is disturbed by deforestation events but begins to equilibrate after seeking and occupying a new habitat, potentially impacting human disease risks.

Wildlife Word Search

N N O B Q U C N E G Q C J P U
R A M A R A M A N P I U Y L D
P M L G W Q D I M K A T A K M
A O D I E A L W C U G R J R C
Q N X D C I S A A Z S A U I D
G Y G G G N K Y T J D A J G X
A E W G B N A K I K K I N A I
M T N C A U Y K O T A U T G H
U E C U B B I P H O W Z K P U
T G C K I U B O T Y A H X T E
J V W F X C N L C F I M Q Q R
C B R Y K Z K E O J B H X M M
H A A J L E W B U D H G J Q Q
C M J I O M G G N U R U B E R
K Z S D D T X I R H E H U B N

BABI
BIAWAK
BUAYA
BURUNG
CIKCAK
GAJAH
IKAN
KANCIL

KATAK
MONYET
MUSANG
RAMA-RAMA
SAWA
TENGGILING
ULAR

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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