

Research School of Biology Newsletter

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ANU COLLEGE OF MEDICINE, BIOLOGY AND ENVIRONMENT

NEWS

Director's message

2015 has been an eventful year! A PM's



Scientist of the Year, outstanding ERA results, great ARC funding outcomes. Oh yes, and a new director. It's almost six months since I've been in the job, and the highlight has been meeting

Australian National University

the people who make up the RSB. Our professional staff, our students, our earlycareer researchers, and our faculty. The very best academic departments are not collections of individuals but communities where great ideas and good research emerge because the whole is greater than the sum. I think the RSB is such a place. I like to think that if you are a 'citizen' of the RSB, you share in its success and you take responsibility for its direction. So, for all the successes this year, congratulations! Have a safe and relaxing holiday -- I look forward with excitement to walking with you wherever the road takes us in 2016.

Graduation

Congratulations to the following RSB graduating PhD students: Kai Xun Chan (Pogson group, PS), Jiahui Du (Price group, PS), Chooi Hua Goh (Mathesius group, PS), Samira Hassan (Mathesius group, PS), Wei Yih Hee (Hardham group, PS), Richa Jakhetia (Verma group, BSB), Andrew Kahn (Jennions group, EEG), Yanjiao Li (Millar group, PS), Melita Milner (Crisp group, EEG), Liang Pin Jason Ng (Mathesius group, PS), Esther Rajendran (Kirk group, BSB), Claudia Rodriguez Delgado (Deakin group, EEG), Isabel Saur (Rathjen group, PS), Vinson Tran (O'Neill group, BSB), Hamish Webb (Foley group, EEG); and to MPhil graduate Tegan Kahn (Martin group, BSB).

RSB HDR Conference 2015

Congratulations to all 96 students who presented at the 2015 RSB HDR student conference. The short-format talks once again provided a highly engaging showcase of the diverse and high calibre research being undertaken within the School. Thanks also to **Don Lim** (O'Neill group, BSB), **Ryan Tseng** (Tscharke group, BSB), **Ana Silva** (Moritz group, EEG) **Robyn Shaw** (Peakall



Organisers and prize-winners after the 2015 HDR student conference. From left: Panit Thamsongsana, Allen Rodrigo, Alex Maier, Spencer Whitney, Adrienne Nicotra, Karen Scholte, Kathryn Parker, Liam Bailey, Shao-Yu Lin, Estee Tee, Adelaide Dennis, Robyn Shaw and Ana Silva. Missing are David Kainer, Don Lim and Ryan Tseng (photo: Graham Hicks) (see News item).

group, EEG), Veronica Reyna (Rathjen group, PS) Estee Tee (Pogson group, PS) (and barman Eli Thynne, Solomon group, PS) for organising the scientific program and the 'After Party'. Thanks also to Karen Scholte and Panit Thamsongsana from the Biology Teaching and Learning Centre, the session chairs, the adjudicators and the academic network convenors - Alex Maier (BSB), Adrienne Nicotra (EEG) and Spencer Whitney (PS), for their role in ensuring that the event was a success. The high quality of the presentations this year made it particularly challenging to identify the award winners in each PhD program (see main photo).

The winners of Hirota Naora award (each totalling \$900) were Liam Bailey (Langmore group, EEG), Shao-Yu Lin (Solomon group, PS) and Kathryn Parker (van Dooren group, BSB). Runner-up prizes of \$250 were awarded to Adelaide Dennis (Kirk group, BSB), David Kainer (Foley group, EEG) and Estee Tee (Pogson group, PS) - Spencer Whitney (PS).

Yalbalinga Camp visit

Aboriginal and Torres Strait Island high school students from NSW and the ACT visited the RSB teaching labs this month. The 22 students looked at skulls, performed the luminol test and did a phenotyping practical with **Juliey Beckman** (BTLC) and the teaching lab staff. The visit was part of the two-day Yalbalinga program, which gives the students a chance to visit The ANU and experience university life.

PhD Student **Nina McLean** (van de Pol group, EEG), has been accepted into the Homeward Bound leadership program for female scientists from around the world.

AWARDS

RSB Honours students **Benjamin Bai** (supervised by Sylvain Foret and Ryszard Maleszka, EEG) and **Caela Welsh** (supervised by Lindell Bromham, EEG and Simon Greenhill, CAP) have been awarded The ANU University Medal, in recognition of their exceptional academic excellence.

RSB school manager, Steve O'Connor,



has received the Colleges of Science award for Outstanding Performance in an Administrative Leadership Role, in recognition for his role in college-wide administrative reviews, as well as

reviews at other schools within The ANU.

Congratulations to Margaret McCully

(Marilyn Ball group, PS) who received the Lifetime Award for her contributions to root research from the International Root Research Society.

GRANTS

Robert Furbank and Susanne von Caemmerer (PS) are The ANU node leaders

Group Leader Profile: Scott Keogh (EEG)

Group research focus



My group works in two broad but largely unrelated, areas. My bread and butter (funded) research is on the molecular phylogenetics of Australian reptiles and frogs - and we work on all of them. We use this phylogenetic information

to test evolutionary ideas about the patterns and speed of morphological and ecological change as it relates to changing climates and biomes. More recently we have scaled up to phylogenomic data sets and added in geometric morphometrics and micro-CT scanning to our work. I also always have been interested in behaviour and my group has done a lot of (largely unfunded) research on the evolution of mating systems using lizards, snakes and frogs. Most of this work is done in collaboration with students, postdocs and colleagues.

Teaching and research achievements

I think I am a good researcher and teacher but I am most proud of my postgraduate students and postdocs. I have supervised to completion a lot of honours, MPhil and PhD students and hosted a lot of ARC Postdocs and Postdoctoral Research Associates. I get a great deal of satisfaction out of seeing how they are progressing in their careers - and they are doing extremely well.

What do you enjoy most about teaching, and what is your teaching focus?

I have taught in a variety of areas over the years but most of my teaching is in vertebrate evolution and zoology at the first and second year level. I certainly enjoy my second year course Australian Vertebrates but first year is my favourite teaching. I have taught a 3-4 week section of what is now the first year 'Diversity of Life' course every year since 1998. I really get a buzz out of seeing new university students getting enthusiastic about something they didn't necessarily think of as a career option.

Who is your science hero?

It may be cliche but Charles Darwin is my science hero. I keep a picture of him above my computer - he is looking at me right now as I type this. I admire him because his insights were so diverse and so profound and he did it all via the power of intense observation of natural history and sustained intellectual grunt work - all at a time when talking about evolution was heresy. I wanted to name our first child Erasmus after Darwin's famous grandfather, but my wife wouldn't go for it.

This newsletter is archived at biology.anu.edu.au/ news-events/newsletter. Layout: Mel Norris Editing: Stefan Bröer & Mel Norris

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on the long-term C4 Rice Project, which is entering its third stage, with funding from the Bill and Melinda Gates Foundation. The project was initiated in 2008, and phase III is a collaboration between 12 institutions in eight countries, led by scientists at Oxford University. It aims to supercharge rice production by introducing a more efficient photosynthesis pathway, which is found in plants like sugarcane and sorghum.

Mike Jennions (EEG) has received a EURIAS Fellowship to work at the WICO Institute in Berlin next year. The institute aims to provide 'optimal working conditions so that Fellows may devote themselves completely to their research' in a diverse community of scholars, for one academic year.

Peter Solomon (PS) and Andrew Milgate (NSW DPI) have been awarded \$2M over 5 years from the Grain Research and Development Corporation to generate effective genetic control of Septoria tritici blotch in wheat.

IN THE MEDIA

A recent paper by Loeske Kruuk (EEG), Rob Lanfear (visiting fellow, EEG), Sandra Binning and Dominique Roche (former RSB PhD students) was reported by a number of scientific media including Campus Review, phys.org, Scienceblog and Bioteching. The study, published in PLOS Biology, found that more than half of public datasets provided with scientific papers were incomplete, preventing reproducibility tests and follow-up studies.

PHDS SUBMITTED

Jehangir (Jerry) Ahmad (Arkell group, BSB) 'ZIC3 target gene identification'.

PHDS AWARDED

Tiffany Russell (Tscharke group, BSB) 'HSV-1 lytic viral gene expression and latency'.

Su-Yin Phua (Pogson group, PS) 'Understanding the role of chloroplast signalling in plant development and drought tolerance'.

Daniel Hoops (Keogh Group, EEG) 'Structure and Evolution of Dragon brains'.

PAPERS ACCEPTED

Clark, HL, Backwell, PRY, Assortive mating in a fiddler crab, Behaviour.

Cranston, PS, Martin, J, Spies, M, Cryptic species in the nuisance midge Polypedilum nubifer (Skuse) (Diptera: Chironomidae) and the status of Tripedilum Kieffer, Zootaxa.

Fromhage, L, Jennions, MD, Kokko, H, The evolution of sex roles in mate searching, Evolution.

Henshaw, JM, Kahn, AT, Fritzsche, K, A rigorous comparison of sexual selection indices via simulations of diverse mating systems, PNAS.

Matzke, NJ, The Evolution of Antievolution Policies After Kitzmiller v. Dover, Science.

NOTICES

Emergency contacts and safety officers The ANU is officially closed between noon on Thursday 24 December 2015 and 9 am on Monday 4 January 2016. However, if you decide to work during this time, please limit this to low hazard tasks consistent with after-hours activities, and familiarise yourself with safety procedures and emergency contacts, which can be found here, as regular staff will be on leave. You can also access the emergency contact page from the 'Quick links' menu on the intranet home page

Your group leader should be your first point of contact, but for problems out of their control, please use the appropriate emergency contact. All systems that are alarmed are monitored by ANU security, who will contact the on-call officer if action is required, so please update your contact details on this equipment. Summer scholars and volunteers are not permitted to work unsupervised out of hours.

RSB Christmas Party Photos



RSB IT client services officers Haroon Asif and Victoria Zhong



Ann-Maree Catanzariti (Hardham group, PS) and Carly Conlan (Whitney group, PS)



EEG PhD students Robyn Shaw (Peakall group), Liam Bailey (Langmore and van de Pol groups), Nina McLean (van de Pol group), David Duchene (Cardillo and Bromham groups), and Zoe Reynolds (Cardillo group). Photos: Graham Hicks