

Research School of Biology Newsletter

Issue 152 | September 2023

From the Director

Welcome all to the September issue of the RSB newsletter – the first crafted by our new EA, Vienna Harkness. If you've not yet met Vienna- please drop by the RSB admin office to say hello. Among other things, I'm sure she will welcome your suggestions on content for this newsletter and how to improve how we communicate outcomes of our great research and teaching to each other and externally.

Here's the big news.... ANU will have a new VC as of January 2024 - Genevieve Bell who is presently the Director of the new School of Cybernetics and previously served as interim Dean of CECS. From her initial work on anthropology, Genevieve has achieved global recognition for her work in universities and industry on adoption of new information technologies. She is also an excellent public speaker – see here for a recent talk at the National Library on development of the Australian overland telegraph and here for her 2021 ANU Garran oration on innovation and cybernetics. Like Brian, our current VC, Genevieve has a deep connection with ANU and fully understands it values and what makes it different from other universities in Australia. Given global and local drivers, ANU will be exposed to challenges over the coming vears, and I am confident that Genevieve will inspire our staff and students to shape this future and make the most of opportunities that arise.

In the following you can see news of awards, teaching, outreach, student events, PhD students starting and completing, and publications. These are manifestations of the hard work our staff and students do all the time to keep RBS functioning as a stimulating and inclusive environment. RSB's various Committees and User Groups are a key part of this. In this issue, we have an update from the IDEA committee. Both this committee and the EMCR committee have been developing positive ideas about how to support staff, students and early-career researchers and their proposals which are now being considered by RSB Exec. More on that in a later newsletter. But, for now, I encourage you all to engage in these representative committees - see here for more information.

RSB Research Strategy Corner

Do you read journal articles? Do you aim to publish your research? Do you support open access publishing? If you answered yes to any of these questions it is worth learning about Read and Publish (RAP) agreements. The agreements bundle journal subscriptions and open access publishing fees under a single contract. In 2023 the ANU library is participating in 16 agreements; enabling ANU authors to publish articles into eligible journals without any article processing charges. Most titles incur no page charges while a few titles are eligible for a discount. Agreements with publishers include the Company of Biologists, Elsevier, Springer

Nature, Oxford University Press, and Wiley. More information is available <u>online</u>, including the complete list of publishers, titles, and FAQs.

From the IDEA Committee

CoS is looking for RSB academic groups or professional teams to host Indigenous Cadets in 2024. The Indigenous Cadetship program aims to support career development for high-school graduates or university students. Cadets will complete four three-month-long project rotations. For information or expressions of interest, contact the CoS Senior Advisor, Culture and Diversity, Nat Thomas Natalee. Thomas@anu.edu.au

Claudia Munnings, Anti-discrimination and Harassment Consultant (People and Culture, ANU) can be contacted by staff or students at staffrespect@anu.edu.au with any concern regarding discrimination or harassment. Claudia is a trained social worker with suicide and mental health first aid. She will reach out using that or her personal email address depending on the matter.

CoS is developing a 'wellbeing' website now available on the Intranet: Wellbeing | Intranet | ANU College of Science.

The CoS Community of Practice, IDEA, and Community events are listed here: I.D.E.A events | ANU College of Science. RSB can advertised IDEA-related events on that website, too. Let your IDEA Cochairs or Committee know.

RSB-catered events must provide nonvegetarian halal options to increase inclusion and access.

Congratulations

Prof Wai-Hong Tham (BSB group leader from November, 2023) has been awarded the Australian Society for Parasitology's Bancroft-Mackerras Medal for Excellence. The prestigious medal recognises an ASP member who has made an outstanding contribution to the science of parasitology, particularly in work published during the last 5 years.

As the recipient of this year's medal, Wai-Hong delivered an oration at the Society's annual conference in Darwin two weeks ago. Two previous BSB group leaders have been awarded the Bancroft-Mackerras Medal: Kiaran Kirk (2008) and Giel van Dooren (2021).



Congratulations to Capella Maguire

from the Giel van Dooren lab (BSB) for winning the best 15 minute talk at the Australian Society of Parasitology Annual



conference that occurred 5th to 8th September in Darwin. Her talk was on "investigating the role of mitochondrial dehydrogenases in Toxoplasma gondii".

There were ~193 attendees, and everyday was packed with talks from PhD and occasionally honours students from all across Australia. Awards were handed out to students at the end of the conference. The awards were winner/runner ups for 15 minute, 5 minute and 3 minute talks.

Welcome

Please welcome Laura Kennedy (pronouns they/them) who has started as a researcher officer in the Brock lab, and who will be working on our ARC Linkage project with Nourish Ingredients in collaboration with the Jackson lab.

Jesusa Aguilar-Mana joined the APPF Team as a Business Administration Manager on the 18th of September. Jesusa comes from the CSIRO Mission Program Office team and will contribute to the APPF operation and regular reporting to the Department of Education.

Shivam Bhardwaj will join the IT Team as an IT Services Officer from October 3rd. Shivam brings with him valuable experience from his previous role at the ITS Service Desk.

Farewell

Farewell to Melissa Nolch, as she has decided to return to OGTR and APS and continue exploring her options in those spheres. We would like to wish her good luck with her new position and thank her for her hard work and contributions to BSB/RSB.

News

Early September, the Theoretical and Applied Genetics RSB teaching team completed their first post COVID-19 teaching expedition to Shandong University in Weihai. It was a huge success over two weeks with 40 hrs in class room active learning, in person exams, oral follow ups, loads of small group work, countless dinners, and a weekend trip to SDU in Qingdao.



Benjamin Schwessinger (PS) would like to thank his co-teachers Katherine Caley (E&E), Zhenyan Luo (PS), Frederick Jaya (E&E), and Andreas Bachler (E&E) for their tireless work and outstanding support. SDU staff's hospitality was

second to none and everyone from RSB could not have been looked after any better. The whole team thanks Yu Pei, Xinfang Lv, Wang Lu, Isaac, Esther, and Heather in addition to SDU's leadership. We are looking forward to bringing back Theoretical and Applied Genetics to SDU in 2024.

In the Media

Caitlin Byrt (PS), Annamaria De Rosa (PS) and Samantha McGaughey (PS) were featured in a Riotact article about their receipt of the Innovation Connect grant in 2021 and updates on their biotechnology start-up Membrane Transporter Engineers.



Outreach

The Schwessinger group organized a "Biosecurity & Sustainability" professional learning workshop for ACT school teachers on 25 August in the Australian National Botanical Gardens. Centered on the iMapPest Smart Surveillance Suite recently acquired from SARDI, the team designed a range of hand-on activities to explain

the concept of plant disease and demonstrated how plant pathologists identify biosecurity threats. Led by Benjamin himself, several group members including Austin Bird, Salome Wilson, Ruoxi Lin, Marieke Moeller and Lydia Murphy assisted with running the workshop. Special thanks to Megan



Head (EE) who took charge of the insect identification activity; Ying Luo (Keogh group, EE) and the Plant Services Team who kindly provided some insect specimens for the workshop.



ANU Tuggeranong Schools Enrichment Event organized by Sarah Fletcher from Bonython Primary took place on the 4th and 5th Sept 2023. We hosted 36 year 6 students, 12 year 10 students, 2 college students and their teachers in activities ranging from a lecture on invertebrates based on BIOL1009

content, a Tour of Geophysical Fluid Dynamics laboratory in the Research School of Earth Sciences and a full day of lab work in the Gould teaching lab. The event was a great success and attracted media attention with a feature on WinTV. We are looking forward to the next event in 2024!

Students



The annual new HDR student induction was held from 6-8 September at Kioloa. It was a fun few days crammed with lots of info-get those milestones done! – and glorious weather permitting beach walks and swimming. A

massive thank you to the organisers, Kate, Roy, Marvin, Jack W, George and YC, as well as Jack Egerton making sure we get there safely. If you missed out this year, make sure you sign up next year.

PhD Submitted

Yun Li (Moritz Group, E&E) Small insects, Big pattern: macroevolution of a hyperdiverse beetle radiation

Nay Chi Khin (Pogson Group, PS) An evolutionary & biochemical approach to gain insight into SAL1-PAP retrograde signalling

Vicky Zhang (Byrt Group, PS) Characterising the regulatory effects of splice variants of transporters

PhD Commenced

Rebeccah Tyrrell (Pogson group, PS)

Nuren Natasha (Williams group, PS)

Olga Mouteira Azevedo (Sequeira Group, E&E)

Nicola Haggerty Mayers (Whitney Group, PS)

Papers

Courtney Jones SK, Geange SR, Hanea A, Nicotra AB et al. IDEAcology: An interface to streamline and facilitate efficient, rigorous expert elicitation in ecology. *Methods in Ecology and Evolution*. https://doi.org/10.1111/2041-210X.14017

Prates I, Hutchinson MN, Singhal S, Moritz C et al. Notes from the taxonomic disaster zone: Evolutionary drivers of intractable species boundaries in an Australian lizard clade (Scincidae: Ctenotus). *Molecular Ecology.* https://doi.org/10.1111/mec.17074

Skeels A. & Yaxley K. Functional endemism captures hotspots of unique phenotypes and restricted ranges. *Ecography*. https://doi.org/10.1111/ecog.06913

Turner CR, Spike M & Magrath RD. The evolution of eavesdropping on heterospecific alarm calls: relevance, reliability, and personal information. *Ecology & Evolution*. https://dx.doi.org/10.1002/ece3.10272

Valdés A, Arnold PA, Ehrlén J. Spring temperature drives phenotypic selection on plasticity of flowering time. *Proceedings of the Royal Society B: Biological Sciences.* http://doi.org/10.1098/rspb.2023.0670

Binks O, Coughlin I, Bryant C, Carle HJ, Meir P et al. Vapour pressure deficit modulates hydraulic function and structure of tropical rainforests under nonlimiting soil water supply. *New Phytologist*. https://doi.org/10.1111/nph.19257

Clark IA, Vissel B. Autocrine positive feedback of tumor necrosis factor from activated microglia proposed to be of widespread relevance in chronic neurological disease. *Pharmacology Research & Perspectives.* https://doi.org/10.1002/prp2.1136

Liang J, Finnigan J, Stuart-Williams H, Farquhar GD, MC Ball MC et al. Tansley Insight: Linking water use efficiency with water use strategy from leaves to communities. *New Phytologist*.

Mahmood MA, Mansoor S, Einkorn genomics reveals ancient roots of domesticated wheat. *Cell Genomics*. https://doi.org/10.1016/j.xgen.2023.100406

Rahimi F, Darvishi M, Talebi Bezmin Abadi A. 'The end' –or is it? Emergence of SARS-CoV-2 EG.5 and BA.2.86 subvariants. *Future Virology.* https://doi.org/10.2217/fvl-2023-0150