

# Research School of Biology Newsletter

Issue 117 | March 2020

#### ANU COLLEGE OF SCIENCE

## **DIRECTORS MESSAGE**

I hope everyone is starting to get used to our new lives working from home. I know it's a huge adjustment for many of you, it certainly is for me. But this is the way it is going to be for a while, so we have to make the best of it.

As much as possible, we want to try and keep up our normal activities via alternative means, and the Divisions are working hard to figure out how best to do that. These first few weeks will require some experimentation, but we're good at that, we will figure it out. Our first full week of online teaching went well but I think many of us are relieved to have the teaching break upon us to continue with the development of our online materials for the second half of semester.

A number of RSB staff and students are working hard behind the scenes to contribute to the global COVID-19 research efforts and all three Divisions are represented. RSB always has a great deal to be proud of, but I've been amazed at the rapid scientific response. I look forward to telling you about it in detail when the time is right.

I want to encourage all our research groups to continue with lab meetings and social meetings through online platforms. I know many of you are doing this and, from what I hear, they have been a success. It is going to be very important for everyone to stay in touch as much as possible. Look after yourselves and your colleagues, families and friends. Scott Keogh, Interim Director.

#### **NEWS**

Thank you to our Bushfire Fighters and congratulations to our ACT Citizens of the





Four of our in-house bushfire fighters were active volunteers this summer in Canberra and New South Wales: Corin Pennock



 $New \, Masters \, students \, in \, the \, BIOL8291 \, course \, with \, course \, convenor \, Rachael \, Remington \, \, and \, Camile \, Moray. \, Image: \, Sharyn \, Wragg \, (28/2/20) \, in \, Camile \, Moray. \, Camile \, Moray \, Camile \, Moray$ 

(RSB technical services team), Tony Xu (EE, Mikheyev group), Matt Mortimer (PS, Pogson group), and Tim Butler (Compliance Services





team). RSB would like to thank them for their collective effort and congratulate those in local ACT brigades who were honoured as ACT Citizens of the Year. The 2020 ACT Citizen of the Year Award is a significant honour in recognition of their outstanding efforts and cooperation in responding to the unprecedented conditions experienced during the summer of 2019-2020. Full story available here.

#### **ECOLOGY FIELD TRIP**

The second year Ecology field trip, lead by Patrick Meir (convenor) and Sasha Mikheyev, went to Kioloa in early March. The students were excellent and engaged fully with the



Ecology fieldtrip at Kioloa. Image Patrick Meir

field course (despite driving rain and wind at the start). The data from this field course sets them up for several learning outcomes that are delivered throughout the rest of the semester. This year was of particular interest as the field course took place after the January

#### **AWARDS**

Congratulations of Xiangning (Christine) Liu (Saliba group) who was awarded the prestigious Janet Elspeth Crawford Prize.



a female Honours student across the College of Science and the College of Health and Medicine who has demonstrated outstanding academic achievement.

#### PAPERS ACCEPTED

Asao, Hayes, Aspinwall, Rymer, Blackman, Bryant, Cullerne, Egerton, Fan, Innes, Millar, Tucker, Shah, Wright, Yvon-Durocher, Tissue & Atkin (2020) Intra-specific trait variation arises similarly among genotypes of Eucalyptus camaldulensis in response to seasonal change in environment rather than water availability or climate of genotype provenance. New Phytologist (accepted).

Bittencourt, Oliveira, Meir, Rowland (2020)

Amazonian trees have limited capacity to acclimate plant hydraulic properties in response to long-term drought. Global Change Biology (accepted).

Brouwer & Cockburn (2020) Experimental vacancies do not induce settlement despite habitat saturation in a cooperative breeder. Biology Letters (in press).

Eller, Rowland, Meir, Sitch, Cox (2020) Stomatal optimization based on xylem hydraulics (SOX) improves land surface model simulation of vegetation responses to climate. New Phytologist (in press).

Hajduk, Walling, Cockburn, Kruuk (2020) The 'algebra of evolution': the Robertson-Price identity and viability selection for body mass in a wild bird population citation. Philosophical Transactions of the Royal Society of London Series B (in press).

Laikre, Hoban, Bruford, Segelbacher, Allendorf, Gajardo, Rodríguez, Hedrick, Heuertz, Hohenlohe, Jaffé, Johannesson, Liggins, MacDonald, OrozcoterWengel, Reusch, Rodríguez-Correa, Russo, Ryman & Vernesi (2020) Post-2020 goals overlook genetic diversity. Science (in press).

Meir, Mencuccini, Coughlin (2020) Respiration in wood: integrating across tissues, functions and scales. New Phytologist (in press).

**Editors Choice:** 



Murray, Kócsi, Dahmen, Narendra, Le Möel, Wystrach & Zeil (2020) The role of attractive and repellent scene memories in ant homing (Myrmecia croslandi) Journal of Experimental Biology (in press).

Every month the editors select one article to highlight on the journal's website as that month's Editors' Choice. *Highlighted* papers are nominated by the Editors.

Nottingham, Meir, Velasquez, Turner (2020) Large soil carbon loss from experimental warming in a tropical forest. Nature (in press).

Onley, Gardner, Symonds (2020) Spatial

and temporal variation in morphology in Australian whistlers and shrike-thrushes: is climate change causing larger appendages? Biological Journal of the Linnean Society (in press).

Paschalis, Fatichi, Zscheischler, Ciais, incl Meir et al. (2020) Manipulation experiments as simulated by terrestrial biosphere models: where do we stand? Global Change Biology (in press).

Sen & Verma (2020) Functional annotation and curation of hypothetical proteins present in a newly emerged serotype 1c of Shigella flexneri: emphasis on selecting targets for virulence and vaccine design studies. Genes (in press).

Tiatragul, Hall, Warner (2020) Nestled in the city heat: urban nesting behavior enhances embryo development of an invasive lizard, Journal of Urban Ecology (in press).

Yadav, Shah, Tiwari, Javed, Cheng, Aiden, Broer (2020) Novel chemical scaffolds to inhibit the neutral amino acid transporter BOAT1 (SLC6A19), a potential target to treat metabolic diseases. Experimental Pharmacology and Drug Discovery & Qi article (in press).

## CONFERENCE **NEWS**

Dr Christina Spry won a Best Oral Presentation award at the prestigious Molecular Approaches to Malaria conference held recently in Lorne, Victoria (23-27 February, 2020)



#### **ALUMNI NEWS**

Find your inner entrepreneur: Qi Cheng (former PhD student, Broer Group) and her partner are setting up a lab in Shanghai, providing third-party pathology services to patients and also central laboratory tests for clinical trials, similar to services provided by Laverty in Australia. They have received an initial investment of 10 million dollars and will hire 30 employees to start the business. The analytical labs will be furnished with clinical laboratory equipment, RT-PCR, mass spectrometry and next generation sequencing systems. Based

on their background, Qi and her partner will focus on the diagnosis of neurological and endocrinological diseases, following the idea of the 'gut-brain axis'. They have received government approval and a place to run the business. The establishment of the lab and the initiation of the business is the first step. We wish Qi and her partner all the best for their future as entrepreneurs.

### WEB RESOURCES

ANU updates on Covid-19

Mental health: While we are fortunate that some of us are able to work or study from home, remote working also poses challenges to our mental and physical health, regular routines, channels of communication and productivity. So please, if you need help, reach out. The ANU has also collected advice to help us out here.

**NECTAR** online meeting place for early career academics starts Tuesday 24 March -10.30am Are you stuck at home? Would you like to connect with other ECAs? Find out what morning tea via Zoom feels like and join NECTAR's weekly online meetings. Join via Zoom every Tuesday at 10.30am.

Dont forget to tag us and follow us on twitter: @BiologyANU



## **PARENTS** CORNER

ACT libraries Home Schooling *Resources* 

Kids STEM activities for Easter Dr Jennie Mallela and her students have compiled a series of online school age activities with a marine /environmental theme. Take a look if you want to keep the kids entertained this Easter.



This newsletter is archived at biology.anu.edu.au/news-events/newsletter. Lavout: Jennie Mallela Editing: Scott Keogh & Jennie Mallela