



Barry Pogson was elected a Fellow of the Australian Academy of Science (see under 'Congratulations'). Image: Lannon Harley, ANU.

Congratulations

Barry Pogson (PS) was elected a Fellow of the Australian Academy of Science (AAS). This major honour recognises Barry's sustained and ground-breaking work on intracellular signaling in plants and how this underpins development, regulation of photosynthesis and response to environmental stress. View [Barry's AAS citation and profile](#).



Giel van Dooren (BSB) has been awarded the Australian Society for Parasitology (ASP) [Bancroft Mackerras Medal](#). The award recognises 'outstanding contribution to the science of parasitology, particularly in work published during the last 5 years'. This was announced at ASP's annual conference on 23 June (unfortunately online only) at which Giel gave his oration.

RSB recipients of [Centre for Biodiversity Analysis Ignition, Student, and Synthesis Grants](#), include **Celeste Linde** (E&E), **Madison Fink** (Head Group, E&E), **Emily Roycroft** (Moritz Group, E&E), **Pieter Arnold** (Nicotra and Kruuk Groups, E&E), and **Adrienne Nicotra** (E&E). Further details [here](#).

Joe Brock and **Aude Fahrner** (BSB), were awarded a \$30K grant from the Medical Advances Without Animals trust (MAWA), to set up a nanobody screening and production platform at ANU.

Ashley Smith (Williams Group, PS) was awarded an AINSE ([Australian Institute of Nuclear Science and Engineering](#)) Honours Scholarship stipend of \$5K to support collaborative work that the Group is undertaking with Daniel Eriksson (Beamline scientist – Australian Synchrotron – ANSTO).

Melanie Carmody (Pogson Group, PS) was shortlisted for the prestigious [L'Oréal-UNESCO For Women in Science](#) award.

Farewell



Loeske Kruuk (E&E) and **Patrick Meir** (PS and E&E) are returning to the UK after nearly a decade in Canberra. Both Group Leaders have had an extraordinary impact in RSB over the years and will be missed by many. Their new positions will be based in the University of Edinburgh, where both have been awarded prestigious grants starting later this year. Loeske has been awarded a [Royal Society Research Professorship](#) and a [European Research Council Advanced Grant](#), and Patrick has been awarded a [Royal Society Wolfson Fellowship](#).



Ryan McQuinn (Pogson Group, PS) won a permanent Level C academic position at the Western Sydney University, we wish him the best of luck with his new lab.

PhDs submitted

Lauren Ashman (Rowell Group, E&E) *Phylogeny and systematics of the longhorn beetle genus Rhytiphora (Coleoptera: Cerambycidae)*.

Fernanda Alves de Amorium (Langmore Group, E&E) *Conservation and management of the forty-spotted pardalote (Pardalotus quadragintus)*.

Weliton Menario Costa (Kruuk Group, E&E) *Personality, social environment, and maternal-level effects: insights from a wild kangaroo population*.

Rituparna Mitra (Callaghan Group, BSB) *Identifying the location of the drug binding site(s) in P-glycoprotein*.

Carlos Pavon Vazquez (Keogh Group, E&E) *From genes to communities: An integrative approach to the evolution of Varanidae*.

Thomas Rowell (Magrath Group, E&E) *Alarm calling and predator awareness training in the critically endangered Helmeted honeyeater*.

Munazza Rajput (Verma Group, BSB) *Study of O-acetyltransferase B (oacB) and three novel orfs encoded by Sf101 bacteriophage of Shigella flexneri.*

Shukhrat Shokirov (Foley Group, E&E) *Using multi-platform LiDAR to assess vegetation structure for woodland forest fauna.*

Yi-Chang Sung (Solomon Group, PS) *Dissection of the role of Tox3-PR1 interaction in the Parastagonospora nodorum-wheat interaction.*

Claire Taylor (Langmore Group, E&E) *Cracking egg investment: Maternal investment in cuckoos and their hosts.*

PhDs awarded

Lily Chen (Furbank Group, PS) *The journey from source to sink in Setaria viridis: The role of sugar exporters SWEETs.*

Haseena Khan (Solomon Group, PS) *Understanding the molecular basis of Zymoseptoria tritici-wheat interactions.*

Demi Sargent (Furbank Group, PS) *Future-proofing cotton production by building resilient photosynthetic pathways.*

Chen Wang (Solomon Group, PS) *Identifying pathogenicity factors in the wheat pathogen Zymoseptoria tritici.*

Weiwen (Raymond) Wang (Lanfear Group, E&E) *The assembly of Eucalyptus pauciflora (snow gum) genomes.*

In the media



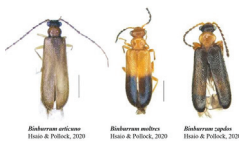
Bullock Jewel butterfly.
Image: Michael Braby.

Michael Braby (E&E), was one of 28 scientists who identified the top 26 Australian butterflies at greatest risk of extinction, and also estimated that they will be lost within 20 years. The study was published in Austral Entomology and was covered by the Global Times, SMH, Australian Geographic, and other media.

Tory Clarke (von Caemmerer Group, PS) was on a panel for Science in the Pub: Earth to Moon and Mars, on 22 June. The panel discussed setting up bases on the moon and on Mars, and the challenges of humanity moving beyond earth: how will we breathe, stay warm, and grow crops?

Merryn Fraser (Maier Group, BSB) did a radio interview with 2CC Canberra to talk about her recent PLoS Pathogens paper on lipids and the malaria parasite Plasmodium falciparum.

Yun Hsiao (Rowell Group, E&E) and colleague published a paper in The Canadian Entomologist, naming three newly-discovered Australian Binburum beetle species after rare Pokemon. Read more in Forbes.



Alex Maier (BSB) spoke with Angela Catterns on ABC Saturday breakfast radio about 'Leeches in modern medicine'.

Craig Moritz (E&E) was an author of The government's idea of 'national environment standards' would entrench Australia's global pariah status, which was published in The Conversation.

Kara Youngentob (Foley, E&E, now Fenner), was lead author on a paper published in Trends in Ecology & Evolution, which reveals how climate change could be contributing to more deaths in wildlife than previously thought: when animals are hot, they eat less, even when they have plenty of food. Read more in the ANU media release.



Jennie Mallela (E&E), gave a talk for World Oceans Day on 8 June. Jennie was one of three international scientists to speak at the event, Celebrating our oceans: From Australia to the Pacific to Antarctica.

She spoke about her research on coral reefs and climate change. A recording is available here. Jennie's 10 minute talk starts at 6:30 minutes.

Welcome

New HDR students:

Madison Fink (Head Group, E&E),
Xuan Hu (Atkin Group, PS),
Jiwon Kim (Maier Group, BSB),
Wendy Lee (Peakall Group, E&E),
Zhenyan Lou (Schwessinger Group, PS),
Amina Mustafa (Leyton Group, BSB),
Di Pan (Adamska Group, BSB),
Siwanon Paphatmethin (Keogh Group, E&E),
James Perkins (Peakall Group, E&E),
Loraine Rourke (Byrt Group, PS),
Tanya Skinner (Whitney Group, PS),
Alan Vincent (Cardillo Group, E&E),
Yan Yang (Stone Group, E&E).

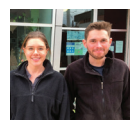
Alice (Jeeun) Shin, has started her PhD project in the Brock Group (BSB), working on the structural basis of anti-malarial drug resistance, after completing her Honours with Professor John Carver at the RSC.



Devyani Gupta has joined the BTLC (Biology Teaching and Learning Centre) as a Student Administrator until the end of the year.



Samale Mohamed and **Paul Tapueluelu** have joined the IT Team as IT Services Officers. Somale worked in the ANU ITS team, and Paul has been working in the team as a casual.



Caitlin Conroy and **Micah Stevenson** have joined the Plant Services Team. Both have come from the Yarralumla Nursery, and between them have many years of horticultural experience in the nursery industry. Caitlin and Micah will be working in all areas of Plant Services, and filling in for the occasional staff absences in Building 134 Autoclave room.

Plant Services also thank our Wonderful Weekend Watering team – **Yuzhen Fan** (Atkin Group, PS), **Reynaldi Darma** (Solomon Group, PS) and **Brad Rath** (Purchasing and Store Team)- for working the occasional weekdays and weekends during the change management process. In particular a special thanks to Brad Rath for helping us keep on top of things in the Plants area.

New appointments



Adrienne Nicotra (E&E) will be RSB's Associate Director, Research & Training, effective 1 July 2021. Adrienne will also Chair the RSB Research Strategy Committee, and join the RSB Executive Committee.

Jessica Fenker Antunes (Moritz and Cardillo Groups, E&E), has taken up a position at CSIRO with the Atlas of Living Australia (ALA).

Outreach

Dave Rowell (E&E), **Mel Trinick**, **Fiona Roxburgh**, **Tammy Gomersall** and **Mrinalini Pratap** (BTLC) hosted an outreach program for 76 year 10 students from Telopea High School on 17 June. Following a lecture on Human Genetics and Forensics, the students did a hands-on lab class exploring a forensic problem involving the use of blood group diagnosis. The students were then introduced to some of the ground-breaking research being carried out at RSB, and how this research feeds into our strategy of research-led teaching. On the basis of the enthusiastic response of the students, their teachers have requested further contributions from RSB to their science program.

Notices

The RSB Early and Mid-Career (EMCR) Committee hosted two events in June: a *Diverse Careers Seminar*, presented by the Research Office team, and a *Private Sector Careers Seminar – Business and Start-ups*, with presenters from CEAT, Capital Ecology, and Nourish Ingredients. [Read more here.](#)

Papers

Bryant C, Fuenzalida TI, Brothers N, Binks O, Ball MC *et al.* Shifting access to pools of shoot water sustains gas exchange and increases hydraulic safety during seasonal atmospheric drought. *Plant, Cell and Environment*. <https://doi.org/10.1111/pce.14080>

Bryant C, Fuenzalida TI, Zavafer A, Nguyen HT, Binks O, Ball MC *et al.* Foliar surface water uptake via cork warts in mangroves of the *Sonneratia* genus. *Plant, Cell and Environment*. <https://doi.org/10.1111/pce.14129>

Chapple DG, Roll U, Böhm M, Keogh JS *et al.* Conservation status of the world's skinks (Scincidae): Taxonomic and geographic patterns in extinction risk. *Biological Conservation*. <https://doi.org/10.1016/j.biocon.2021.109101>

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evaluative judgement in an online peer learning community. *Assessment & Evaluation in Higher Education*. <https://doi.org/10.1080/02602938.2021.1933378>

Cook CN, Beever EA, Thurman LL, Nicotra AB *et al.* Supporting the adaptive capacity of species through more effective knowledge exchange with conservation practitioners. *Evolutionary Applications*. <https://doi.org/10.1111/eva.13266>

Coopman RE, Nguyen HT, Mencuccini M, Ball MC *et al.* Harvesting water from unsaturated atmospheres: deliquescence of salt secreted onto leaf surfaces drives reverse sap flow in a dominant arid climate mangrove, *Avicennia marina*. *New Phytologist*. <https://doi.org/10.1111/nph.17461>

Donnelly M, Corben C, Curran S, Courtney Jones SK *et al.* Bats of Buton Island SE Sulawesi 2018 Occurrence Dataset. Version 1.2. Southeast Asian Bat Conservation Research Unit. Occurrence dataset <https://doi.org/10.15468/qnz3rs>

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Evans JC, Murugesan D, Post JM, Spry C *et al.* Targeting *Mycobacterium tuberculosis* CoaBC through chemical inhibition of 4'-Phosphopantothenoyl-L-cysteine synthetase (CoaB) activity. *ACS Infectious Diseases*. <https://doi.org/10.1021/acsinfecdis.0c00904>

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Fraser M, Matuschewski K & Maier AG. Of membranes and malaria: phospholipid asymmetry in *Plasmodium falciparum*-infected red blood cells. *Cellular and Molecular Life Sciences*. <https://doi.org/10.1007/s00018-021-03799-6>

Groszmann M, De Rosa A, Evans JR, *et al.* A consensus on the aquaporin gene family in the allotetraploid plant, *Nicotiana tabacum*. *Plant Direct*. <https://doi.org/10.1002/pld3.321>

Guppy M, Overs A, Guppy S. A detailed description of the breeding season of a community of birds on the south-east coast of Australia. *Australian Zoologist*. <https://doi.org/10.7882/AZ.2021.014>

Huasco WH, Riutta T, Girardin CAJ, Meir P *et al.* Fine root dynamics across pantropical rainforest ecosystems. *Global Change Biology*. <https://doi.org/10.1111/gcb.15677>

Laughlin DC, Mommer L, Sabatini FM, Meir P *et al.* Root traits explain plant species distributions along climatic gradients yet challenge the nature of ecological trade-offs. *Nature Ecology and Evolution*. <https://doi.org/10.1038/s41559-021-01471-7>

Kawasaki A, Dennis PG, Forstner C, Mathesius U, Delhaize E, Watt M, *et al.* Root exudates shape the microbiome throughout the root systems of rice and wheat. *Plant Physiology*.

Laikre L, Hohenlohe PA, Allendorf FW & MacDonald A *et al.* Authors' Reply to Letter to the Editor: Continued improvement to genetic diversity indicator for CBD. *Conservation Genetics*. <https://doi.org/10.1007/s10592-021-01359-w>

Lee H-C, Binos S, Chapman K, Pulsford SB, Ivanovici A, Rathjen JP, Djordjevic MA. A new method to visualize CEP peptide-CEP receptor interactions in vascular tissue in vivo. *Journal of Experimental Botany*. <https://doi.org/10.1093/jxb/erab244>

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Poyatos R, Granda V, Flo V, Meir P *et al.* Global transpiration data from sap flow measurements: the SAPFLUXNET database. *Earth System Science Data*. <https://doi.org/10.5194/essd-13-2607-2021>

Rahimi F. Alzheimer disease: controversies in basic science research, different theories, and reasons for failed trials. *Biomedicine*. <https://doi.org/10.3390/biomedicine9030254>.

Roycroft E, Achmadi A, Callahan CM *et al.* Molecular evolution of ecological specialisation: Genomic insights from the diversification of murine rodents. *Genome Biology and Evolution*. <https://doi.org/10.1093/gbe/evab103>

Saucedo-Garcia M, Gonzalez-Cordova CD, Ponce-Pineda, Zavafer A *et al.* Effects of MPK3 and MPK6 kinases on

the chloroplast architecture and function induced by cold acclimation in *Arabidopsis*. *Photosynthesis Research*. <https://doi.org/10.1007/s11120-021-00852-0>

Stephens C, Olmez F, Blyth H, McDonald MC, Solomon PS *et al.* Remarkable recent changes in genetic diversity of the avirulence gene *AvrStb6* in global populations of the wheat pathogen *Zymoseptoria tritici*. *Molecular Plant Pathology*. <https://doi.org/10.1101/2020.09.18.303370>

Taghvaei T, Kamali N, Abadi ATB, Rahimi F *et al.* Isolation of *dupA*-positive and clarithromycin-resistant *Helicobacter pylori* from Iranian patients with duodenal ulcer. *Gene Reports*. <https://doi.org/10.1016/j.genrep.2021.101228>.

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Wilson KA, Fairweather SJ, MacDermott-Opeskin HI, Morris RA *et al.* The role of plasmalogens, Forssman lipids, and sphingolipid hydroxylation in modulating the biophysical properties of the epithelial plasma membrane. *The Journal of Chemical Physics*. <https://doi.org/10.1063/5.0040887>

Youngentob KN, Lindenmayer DB, Marsh KJ, Foley WJ *et al.* Food intake: an overlooked driver of climate change casualties? *Trends in Ecology & Evolution*. <https://doi.org/10.1016/j.tree.2021.04.003>.

South Coast marine species photographs published in *iNaturalist*

Eldon Ball (E&E) spent a substantial chunk of his COVID year scanning, uploading to *iNaturalist*, and trying to identify, marine organisms that he photographed between 1975 and 2000. There are approximately 1000 images, taken between Jervis Bay and Eden. There were several motivations for doing this. Firstly, the coastal fauna is changing, with many species moving south as the water warms. So, this will provide documentation for the occurrence of species at various specific localities in the past. Secondly, it will make more people aware of some of the beautiful animals that occur locally. Finally, it will make photos freely available to others should they want to use them for lecturing or other purposes. For those not familiar with *iNaturalist*, you can search in many ways including by contributor, by species, or by locality.

View [Eldon's *iNaturalist* contribution](#).



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