



NEWS

Naomi Langmore awarded DL Serventy medal

Naomi Langmore (E&E) has been awarded the 2019 D.L. Serventy Medal, the highest award offered to professional ornithologists by BirdLife Australia. The medal is awarded annually, for outstanding published work on birds in the Australasian region.

The award recognises that Naomi has become one of Australia's best known avian evolutionary ecologists, with her work consistently placing Australian birds and their natural history on the world stage. To find out more, click here.



Alex Maier appointed Fellow of the ASM

Alex Maier (BSB) has been appointed a Fellow of the Australian Society for Microbiology. The Fellowship of The Australian Society for Microbiology (FASM) is the highest award conferred by the Society. It is awarded to those who have demonstrated competence and distinction in the professional practice of microbiology. Fellowships are conferred through a process of peer-assessment upon specialists in their field, who have made significant contributions to the profession.



Chris Fulton appointed to Board of STA

Chris Fulton (E&E) has been appointed to the Board of Science & Technology Australia (STA) to represent the aquatic science cluster of professional societies. Science & Technology Australia (STA) is Australia's peak body in science & technology representing more than 75,000 Australian scientists & technologists spanning all scientific disciplines.

Australian Society for Fish Biology conference

Chris Fulton (E&E) convened the 2019 Australian Society for Fish Biology conference that brought together over 250



Wearing hats at the Australian Society for Fish Biology conference this month: Alison King (ASFB Vice-President), Harry Balcombe (President), Senator The Hon Jonathon Duniam, Assistant Minister for Forestry and Fisheries, and Chris Fulton (ASFB Past President) (See: News Item)

fish & fisheries scientists and managers from across Australia and seven other nations to engage in four days of workshops, seminars and social events at the National Library of Australia. Senator The Hon Jonathon Duniam, Assistant Minister for Forestry & Fisheries officially launched the conference and got into the spirit of good communication (see main photo). A free public forum attracted over 210 people to learn about seafood mislabelling, using verbal judo to deal with science-deniers, and other current topics in fish & fisheries science.

Wombat Day 2019



Corin Pennock (Technical Services) holds baby wombat Honey on Wombat Day 2019 (Tuesday 22 October) in the image above (photo by Sharyn Wragg). Honey was brought in to ACT Wildlife after her mother was killed by a car, and is named for Honeysuckle Creek, near where she was found. She's around two - three months old,

and will be cared for for another year or so, after which she will be released in a carefully selected location. Corin co-ordinates a project to combat wombat mange in the ACT, and they are always looking for volunteers and donations. You can see more pics of Honey and her friends here, and read more about the mange project here.

The Wholesome Show



Rod Lamberts (CPAS), Hannah Carle (Meir group, PS) and Will Grant (CPAS) recording the podcast (Image Sharyn Wragg).

An episode of the Wholesome Show podcast was recorded in front of an enthusiastic audience in the Eucalyptus Room at RSB this month. The hosts, Will Grant and Rod Lamberts from the Australian National Centre for the Public Awareness of Science (CPAS) were joined by Hannah Carle (Meir group, PS) to talk about the domestication of foxes in the Soviet Union. You can listen to the episode here.

ANU Researchers and local school teachers join forces to help science teachers in Timor-Leste



Rob Sharwood demonstrated the uptake of water through the xylem of a herbaceous plant

At the beginning of October, **Robert Sharwood** (Furbank group, PS), **Habiba Hossain** (RSPHys), **Carly Conlan** and **David Johns** (both from John-Paul College in Gungahlin) embarked on their annual trip to Maliana, Timor-Leste. This program has been operating now for four years from the generous support of RSB, ARC Centre of Excellence for Translational Photosynthesis and RSPHys to help teachers design scientific experiments that underpin key fundamental science principals. In the first two years we focused on plant biology, chemistry and teaching pedagogy and this has now expanded to include physics. Teachers in Timor-Leste are focused on rote learning whereby the teacher only teaches from the textbook with no experiments to reinforce concepts. We have strived to design experiments that only require materials that are present in Timor-Leste and at low cost. This year we had 20 teachers with varying experience – 3 months to 6 years. We extended our 2018 program of “process by design” that enabled us to explore various principles of gravity, force, motion, experimental design, fair tests and plant biology. At the end of the 3 day masterclass, we asked the teachers to construct a lesson plan that incorporated a scientific experiment. We recorded their lesson plan so this could be distributed to other teachers from around the Maliana Diocese. This was a rewarding trip for both the teachers and ourselves and teachers were presented with certificates of participation.



The 20 teachers who received their certificates after the 3-day masterclass in science teaching and pedagogy.

We were very fortunate to meet with the Australian Ambassador in Timor-Leste which enable us to make further connections within the education system. We look forward to returning in 2020. - **Rob Sharwood**, Furbank group, PS.

German Research Foundation (DFG) delegation visit RSB

Peter Strohschneider, the president of the German Research Foundation (Deutsche Forschungsgemeinschaft – German ARC equivalent), and his delegation visited RSB on this month (see image at the bottom of page 3). The DFG is a key funder of the International Research Training Group “Molecular Interactions in Malaria” – an international graduate school and collaboration between ANU and Humboldt-University Berlin. The aims of the IRTG are to provide molecular insights into infection by the malaria parasites with the view to develop novel intervention strategies (e.g. drugs or vaccines) and to train independent, innovative and interdisciplinary researchers that are able to deal with complex problems and can perform on an international stage. The delegation met with students and staff of the IRTG to receive an update on its activities. The DFG delegates were also interested in discussing ideas how to improve the IRTG funding program in general and how they could help to facilitate the future careers of students and how to strengthen the bilateral relationships between Australia and Germany. - **Alex Maier**, BSB.

Awards



Yi-Yang Chen, Chris Fulton and David Ellis after the award presentation. Image: Twitter.

Yi-Yang (Alex) Chen (Fulton group, E&E) won the John Lake Poster Award for his fantastic poster presentation, and **David Ellis** (Fulton group, E&E) was awarded the Michael Hall Student Innovation Award at the Australian Society for Fish Biology at the ASFB conference 2019 held in Canberra this month.

Haochen Wei (Solomon group, PS) was recently awarded a British Society for

Plant Pathology Travel Award to attend the upcoming European Conference on Fungal Genetics in Rome, Italy.

Outreach News

Maja Adamska (BSB) delivered an outreach talk to Year 11 biology students at Daramalan College this month. The students found the talk interesting and challenging, according to their teacher, **Simon Aylott**, and they felt they had gained some insight into the work of a real biologist, and of what Biology might look like at ANU.

“We really appreciated your passion and deep knowledge of this topic area and it has enriched my understanding of this topic as a teacher”, Simon said.



Jennie Mallela (3rd from left) and three marine science communication interns, at Kaleen Primary School.

Jennie Mallela (Rodrigo group, CBBU) and a group of ANU marine science communication interns: Laura, Luke and Sofia, visited Kaleen Primary school to run a series of educational science events with school children. Multiple classes participated in hands on activities learning about sustainability, marine pollution, and trophic interactions.

Jennie Mallela (Rodrigo group, CBBU) and four science communication interns hosted a screening of the documentary 'Chasing Coral' this month. A Q&A expert panel discussion followed the screening, which was attended by more than 100 people.

IN THE MEDIA

A story about **Naomi Langmore's** (E&E) research on song in female birds, written by **Tabitha Carvan** from the College of Science, reached 7.8K people on Facebook and attracted over 200 comments, likes and shares. Click here to read 'Wait, we're sexist towards birds now?'

Arun Yadav (Pogson group, PS), **Adam Carroll** (Joint Mass Spec manager) and **Barry Pogson** (PS) have featured in a broad range of radio, print and online media in Australia including ABC radio Country Hour, ABC radio AM program,

2GB, and overseas media outlets about their work to develop a new crop tool to help in breeding drought resilient crops to secure global food security under challenging weather and climate extremes. Some of their media appearances and interviews include *Canberra Times*, *ABC Radio Canberra* (interview starts at 1hr 34m), *Business Standard* (India).

Connie Leon (Head group, E&E), **Jessica Fenker** (Moritz group, E&E) and **Weli Menario** (Kruuk group, E&E) featured in an SBS news story about how Australia is recruiting more students from Latin America. You can watch the story [here](#).

WELCOME

The Farquhar Group (PS) welcomes **Jie Liang** as a Postdoctoral Fellow. She obtained her PhD in Ecology from Tsinghua University, China in 2019, focusing on the hydrological issues of mangrove forests using stable isotope techniques and process-based models. She will now be working on isotope discriminations of leaf water.



PHDS SUBMITTED

Jing Cui (Tcherkez group, PS) 'Metabolic responses to potassium availability and waterlogging in two oil-producing species: sunflower and oil palm.'

Jack Simpson (Zeil group, E&E) 'High throughput behavioural and characterisation of the honey bee super-organism.'

PHDS AWARDED

Buddie Nanayakkara (Gordon group, E&E) 'Phenotypic and genotypic characteristics for *Escherichia coli* strains responsible for bacterial bloom events in Australia.'

Kathryn Parker (van Dooren group, BSB) 'Defining the apicomplexan amino acid transporter (ApiAT) family.'

Sophie Johns (Jennions group, E&E) 'Modelling host evolutionary responses to infection.'

PAPERS ACCEPTED

Au J, Clark RG, Allen C, Marsh KJ, Foley WJ, Youngentob KN, A nutritional mechanism underpinning folivore occurrence in disturbed forests, *Forest Ecology and Management*.

Bonnet T, Morrissey MB, Morris A, Morris S, Clutton-Brock TH, Pemberton JM, Kruuk LEB, The role of selection and evolution in changing parturition date in a red deer population, *PLOS Biology*.

Braby M, First record of *Neohesperilla xiphiphora* (Lower, 1911) (Lepidoptera: Hesperidae) from Western Australia, *Australian Entomologist*.

Bromham L, 'Causes of variation in rate of molecular evolution', in Simon YW Ho (ed) *The Molecular Evolutionary Clock. Theory and Practice*, Springer.

Bromham L, 'Substitution Rate Analysis and Molecular Evolution' in N Galtier, F Delsuc, C Scornavacca (eds) *Phylogenetics in the age of genomics*, OpenAccess Series in Informatics, Dagstuhl Publishing, Germany.

Cranston PS, Identification guide to genera of aquatic larval Chironomidae (Diptera) of Australia and New Zealand, *Zootaxa*.

Cranston PS, An enigmatic Chironomidae (Diptera): first larval description for *Nandeva* Wiedenbrug, Reiss and Fittkau and evidence for phylogenetic position in Tanytarsini, *CHIRONOMUS Journal of Chironomidae Research*.

Domingo R, van der Westhuyzen R, Hamann AR, Mostert KJ, Barnard L, Paquet T, Tjhin ET, Saliba KJ, van Otterlo WAL, Strauss E, Overcoming synthetic challenges in targeting coenzyme A biosynthesis with the antimicrobial natural product CJ-15,801, *RSC Medicinal Chemistry*.

Hoi PTT, Tyerman SD, Schnell N, Tucker M, McGaughey SA, Qiu J, Groszmann M, Byrt C, Roles for aquaporins in seed water relations, *Journal of Experimental Botany*.

Khoshravesh R, Stata M, Busch FA, Saladié M, Castelli JM, Dakin N, Hattersley PW, Macfarlane TD, Sage RF, Ludwig M, Sage TL, The evolutionary origin of C4 photosynthesis in the grass subtribe Neurachninae, *Plant Physiology*.

Lin Y-C, Lin R-J, Braby M, Hsu Y-F, Evolution and losses of spines in slug caterpillars (Lepidoptera: Limacodidae), *Ecology and Evolution*.

López-Márquez V, Cushman SA, Templado J, Wan HY, Bothwell HM, Kruschel C, Macik V, Machordom A, Seascape genetics and connectivity modelling for an endangered Mediterranean coral in the northern Ionian and Adriatic seas, *Landscape Ecology*.

Nanayakkara BS, O'Brien CL, Gordon DM, Phenotypic characteristics contributing to the enhanced growth of *Escherichia coli* bloom strains, *Environmental Microbiology Reports*.

Tang H-Q, Cranston PS, A phytophagous *Polypedium* Kieffer (Diptera: Chironomidae) new to Australia and Japan: taxonomy and expanded Asian distribution, *Austral Entomology*.

Vilas MP, Adams MP, Ball MC, Meynecke O, Santini NS, Swales A, Lovelock CE, Night and day: shrinking and swelling of stems of diverse mangrove species growing along environmental gradients, *PLOS ONE*.



Members of the German Research Foundation delegation with colleagues from ANU: Seated, left to right: Katrin Mandic (German Embassy), Klaus Wehrberger (DFG), Johanna Kowol-Santen (DFG), Raoul Wagner (DFG) and Daniel Brown (ANU International Partnerships Development). Standing: Parnika Mukherjee (JCSMR), Theresa Storiko (Maier group, BSB), Adele Lehane (BSB), Christina Spry (Saliba group, BSB), Ian Cockburn (JCSMR), Kevin Saliba (BSB), Julie-Anne Gaebelich (Maier group, BSB), Alex Maier (BSB), Giel van Dooren (BSB) and Kai Pohl (JCSMR).

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