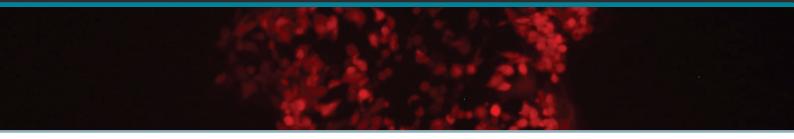


RESEARCH SCHOOL OF BIOLOGY NEWSLETTER



NEWS

NEW LAUREATE FELLOW

RSB will welcome new Laureate Fellow <u>Craig Moritz</u> mid-next year. Currently Director of the Museum of Vertebrate Zoology at the University of California, Berkeley, Craig will be based in EEG and will hold a joint appointment with CSIRO Ecosystem Sciences.



NEW APPOINTMENTS

Following the recent RSB recruitment round, the following people will start as lab leaders in the New Year.

Justin Borevitz (PS), currently at the University of Chicago, working in the area of the genetics of plants' adaptation to their environment.

Ben Corry (BSB), presently an ARC Australian Research Fellow at UWA, working on membrane ion channels.

Sylvain Foret (EEG), currently a Research Fellow with the ARC Centre of Excellence for Coral Reef Studies, at JCU. Sylvain is interested in invertebrate evolution and has extensive expertise in the analysis of biological sequence data.

Alex Maier (BSB), presently an ARC Australian Research Fellow at La Trobe University, working on molecular mechanisms of malaria pathogenesis.

<u>Sarah Pryke</u> (EEG), currently a Research Fellow at Macquarie University, working in the area of bird behavior, ecology and evolution. Giel van Dooren (BSB), currently an ARC QEII Fellow at the University of Melbourne, working on the biology of the protozoan parasite, toxoplasma.

Richard Callaghan (BSB; ANU Medical School), presently at the University of Oxford, working in the area of anticancer drug resistance and membrane proteins

RSB'S NEW TALL POPPY

Gonzalo Estavillo (Pogson lab, PS) was awarded an ACT Tall Poppy award in August for his work on plant drought defence mechanisms and his teaching role with 'the Plant Detectives'.



EDITOR-IN-CHIEF

Kevin Saliba (BSB) has been appointed as Editor-in-Chief of a new open-access Elsevier journal, *International Journal for Parasitology: Drugs and Drug Resistance.*

NEW BUILDING NAMED

The Vice-Chancellor has approved the naming of Building 134, The Linnaeus Building.

OPEN DAY

RSB participated in the ANU
Open Day on 27 August with a
microscope exhibit of insects
and flowers and a slide show.
Thanks to Dave Rowell for the
"Introduction to Biology" talk and
also to Susan Howitt, Kiaran
Kirk, Casey Hamilton, Barbara
van Leeuwen, Andras Keszei,
Juliey Beckman, Audrey Chan,
Esther Rajendran, Tiffany
Russell and Dan Starr for

answering many questions from prospective students and their parents.

WELCOME

Jessica McLaughlin joined the Magrath Lab (EEG) to carry out fieldwork for her Masters research at the University of Bristol.

Heather Volk joins us as Academic Coordinator for the joint Bachelor of Medical Sciences degree with UniSA.

Warangkhana Pruksarojanakul is joining the Cooper lab (PS) as a PhD student.

Nicola Aitken will be joining the Nicotra lab (EEG) as a technical officer.

Panit Thamsongsana is the new Team Leader of the Teaching and Learning Administration Team.

FAREWELL

Nicolas Ballois (Solomon lab, PS) is returning to France after a 2-month stay quantifying *Mycosphaerella graminicola* levels in susceptible and resistant wheat varieties.

PhD student Victoria
Ludowici (Hardham, PS) will
be leaving Canberra in order to
write up in the warmer clime of
Sydney.

Marie McNamara has left the Teaching and Learning Centre to join the JAG Finance team.

Megan Waldhuber has left the Teaching and Learning Centre to pursue a Master of Pharmacy at the University of Canberra.

ISSUE 31 | 13 SEPTEMBER 2011

CONGRATULATIONS

Mike Crisp (EEG) has won the Nancy Burbidge Medal of the Australian Systematic Botany Society.

Julianne Livingston (Jennions Lab, EEG) and Catherine Hayes (Backwell Lab, EEG) were awarded University Medals for Biology at the July Graduation Ceremony.

Christina Spry (Kirk & Saliba labs, BSB), was awarded best oral presentation at the ASMR ACT New Investigator Forum.

Honours student, **Zarshis Avari** (Verma lab, BSB) was awarded the Australian Society for Microbiology NSW-ACT branch Undergraduate Student Encouragement Award.

Ashley Jones (Searle lab, PS) received a 2011 John Stocker award

MEDIA

Rob Magrath and Tom Bennett (EEG) had significant media coverage in response to their media release on eavesdropping wrens, including print and online media, and a radio interview on ABC mornings.

Rowena Martin (BSB) was interviewed on <u>ABC Radio</u> in a segment on how the antimalarial drug chloroquine was lost due to drug resistance, but found again due to Rowena's work.

Stefan Broer (BSB) <u>commented</u> on stricter labelling food labelling laws.

Gonzalo Estavillo (PS) was featured in an ANU <u>media release</u> and the <u>online</u> and print Canberra Times for being awarded an ACT Tall Poppy award.

Celeste Linde (EEG) commented on the Tasmanian truffle industry in an interview on Landline.

Anastasia Dalziell (EEG) <u>commented</u> on lyrebird communication on ABC online.

Ashley Jones (Searle lab, PS) was mentioned in <u>The Australian</u> for being the recipient of a 2011 John Stocker award.

GRANT AWARDED

Susan Howitt and Anna Wilson, in collaboration with Pam Roberts, Gerlese Akerlind, Pauline Ross and Betty Gill, have been awarded a Teaching Research - Evaluation and Assessment Strategies for Undergraduate Research Experiences (TREASURE) grant of \$182,000 from the Australian Learning and Teaching Council.

PRESENTATION

Science and the world's future
Bruce Alberts, Professor Emeritus
of Biochemistry and Biophysics,
University of California; Editor-inchief, Science magazine; United
States Science Envoy
When: 5 - 7 pm, 27 Sept. 2011
Location: CSIRO, Discovery
Lecture Theatre
RSVP required. Further
information.

LAB LEADER SPOTLIGHT - HANNA KOKKO, EEG

Lab members

- Andrew Kahn, PhD
- · Jussi Lehtonen PhD
- · Kate Umbers, Post-Doc
- · Luke Holman, Post-Doc

Currently researching: Evolutionary ecology. "We are trying to take both parts of that phrase seriously because the two levels interact in important ways".

Lab's greatest achievement: The Kokko lab is in its early days, but Hanna is proud of her work with Michael Jennions (EEG), investigating spectacular exceptions to the general rules governing sex roles in the animal kingdom.

The next big thing: Applying positive and negative feedback principles to individuals and the populations they live in. Hanna says that to date, ecologists have mostly been interested in negative feedbacks, neglecting positive feedback.

"Positive feedback in evolutionary ecology can be quite common, but people don't often call it that. Therefore, similar phenomena can happen in different areas and get overlooked," she explains.

Science hero: Having recently read Leaps in the Dark: The making of science reputations, Hanna questions the idea of science heroes, saying that "hero might be too strong a word".

"Basically [the book] dismissed the myth that everyone is against you and your idea," she explained.



Bolton, J., Callender, S., Jennions, M.D., and Backwell, P.R.Y. Even weak males help their neighbours: defence coalitions in a fiddler crab. Ethology.

Byrne, M., Steane, D., Loseph, L., Yeates, D., Jordan, G.J., Crayn, D., Sniderman, K., Aplin, K., Cook, L. G., Crisp, M. D., Keogh, J. S., Melville, J., Moritz, C., Porch, N., Sniderman, J. M. K, Sunnucks, P., and Weston, P. H. Decline of a biome: Evolution, contraction, fragmentation, extinction and invasion of the Australian mesic zone biota. *Journal of Biogeography*.

Catullo, R.A., Doughty, P., Roberts, J. D., and Keogh, J. S. Multi-locus phylogeny and taxonomic revision of Uperoleia toadlets (Anura: Myobatrachidae) from the western arid zone of Australia, with a description of a new species. *Zootaxa*.

Dubey, S., Sumner, J., Pike, D., Keogh, J. S., and Shine, R. Genetic connectivity among populations of an endangered snake species from southeastern Australia (Hoplocephalus bungaroides, Elapidae). *Ecology and Evolution*.

Fernie, A.R., Aharoni, A., Willmitzer, L., Stitt, M., Tohge, T., Kopka, J., Carroll, A.J., Saito, K., Fraser, P.D. and Deluca, V. Recommendations for reporting metabolite data. *The Plant Cell.*

Heinsohn, R., Langmore, N.E., Cockburn, A. and Kokko, H. Adaptive secondary sex ratio adjustments via sex-specific infanticide in a bird. *Current Biology*.

Hinton R.A., Papathanasiou P., and O'Neill H.C. Distinct in vitro myelopoiesis is dependent on the self-renewal of hematopoietic progenitors. *Scandinavian Journal of Immunology*.

Hu, Y. Y., Zhang, Y. L., Luo, H. H., Li, W., Oguchi, R., Fan, D. Y., Chow, W. S. and Zhang, W. F. Important photosynthetic contribution from the non-foliar green organs in cotton at the late growth stage. *Planta*.

Jayatilaka, P., Narendra, A., Reid, S.F., Cooper, P., and Zeil, J. Different effects of temperature on the foraging activity schedules in sympatric Myrmecia ants. *Journal of Experimental Biology*.

Koeck, M., Hardham, A.R., and Dodds, P.N. The role of effectors of biotrophic and hemibiotrophic fungi in infection. *Cellular Microbiology*. Lukoschek, V., Keogh, J.S., and Avise, J. C. Evaluating fossil calibrations for dating phylogenies in light of rates of molecular evolution: a comparison of three approaches. *Systematic Biology*.

Melo-Silva, C.R., Tscharke, D.C., Lobigs, M., Koskinen, A., Wong, Y.C., Buller, R.M., Müllbacher, A. and Regner, M. The Ectromelia virus SPI-2 protein causes lethal mousepox by preventing NK cell responses. *Journal of Virology*.

O'Neill, H., Griffiths, K.L., Periasamy, P., Hinton, R.A., Hey,Y. Y., Petvises, S. and Tan, J.K.H. Spleen as a site for hemaopoiesis of a distinct antigen presenting cell type. Stem Cells International, Special Issue: Heterogeneity, Self-renewal, and Differentiation of Hematopoietic Stem Cells.

Pepper, M., Doughty, P., Hutchinson, M.N., and Keogh, J. S. Ancient drainages divide cryptic species in Australia's arid zone: Morphological and multi-gene evidence for four new species of Beaked geckos (Rhynchoedura). *Molecular Phylogenetics and Evolution*.

Pepper, M., Fujita, M. K., Moritz, C., and Keogh, J. S. Palaeoclimate change drove diversification among isolated mountain refugia in the Australian arid zone. *Molecular Ecology.*

Pepper, M., Ho, Y. W. S., Fujita, M.K., and Keogh, J.S. The genetic legacy of aridification: Climate cycling fostered lizard diversification in Australian montane refugia and left low-lying deserts genetically depauperative. *Molecular Phylogenetics and Evolution*.

Renfree, M.B., Papenfuss, A.T., Deakin, J.E., Lindsay, J., Heider, T., Belov, K., Rens, W., Waters, P.D., Pharo, E.A., Shaw, G., et al. Genome sequence of an Australian kangaroo, Macropus eugenii, provides insight into the evolution of mammalian reproduction and development. *Genome Biology.*

Scafaro, A. P., Von Caemmerer, S., Evans, J. R., and Atwell, B. J. Temperature response of mesophyll conductance in cultivated and wild Oryza species with contrasting mesophyll cell wall thickness. *Plant, Cell and Environment.*

Simon, G. A., Brown, P., Van Eeden, M. D., Wiese, R. J., Mullins, G. O., Solley, R. P., Taylor, R.W. and Heddle, R. J. Causes of ant sting anaphylaxis in Australia: the Australian Ant Venom Allergy Study. *Medical Journal of Australia*, 195: 69-73.

Solomon, P.S. Assessing the mycotoxigenic threat of necrotrophic pathogens of wheat. *Mycotoxin Research*.

Yuan-Yuan Hu, Ya-Li Zhang, Hong-Hai Luo, Wei Li, Riichi Oguchi, Da-Yong Fan, Wah Soon Chow and Wang-Feng Zhang. Important photosynthetic contribution from the non-foliar green organs in cotton at the late growth stage. *Planta*.

This newsletter is published monthly, and is archived at http://biology.anu.edu.au/newsletter. Please contact Casey Hamilton to submit material for future issues, or to be added to our newsletter mailing list.

Compilation and layout by Casey Hamilton. Banner image: mCherry + Plaque, David Tscharke