



## NEWS

### New Australian Academy of Science Fellows

**Hanna Kokko** (EEG) and **Craig Moritz** (EEG, and Director of the Centre for Biodiversity Analysis), have been elected as [Fellows of the Australian Academy of Science](#).



Hanna was elected for her significant contributions to ecology and evolutionary biology using novel mathematic methods.



Craig was elected for his work to improve our understanding of evolutionary biology, particularly how new species arise and develop in different contexts.

### Memorial service for Warwick Hillier



A memorial service for Warwick Hillier was held on 11 March at the Margaret Whitlam Pavilion at the National Arboretum.

The event was attended by some 150 of Warwick's colleagues, friends and family.

### ANU Education Fellowship

**Chris Fulton** (EEG) has been awarded an ANU Research-led Education Fellowship for his research into 'Fostering functional creativity and research literacy in undergraduate scientists via multimedia communication.' Chris will collaborate with artists and scientists across the ANU to help undergraduate science students learn key aspects of the research process, while expressing creativity in how they interpret and communicate scientific research to a general audience.

### Crawford Prize

**Kathryn Parker** (van Dooren and Kirk Labs, BSB) has been awarded the [Janet Elspeth Crawford Prize](#) for her 2013 Honours thesis, entitled 'The novel putative transporter family in *Toxoplasma gondii*'.

### FRDC Science and Innovation Award

**Danswell Starrs** (Fulton Lab, EEG) has been awarded \$19K by the [Fisheries Research and Development Corporation \(FRDC\)](#), to explore if



A female Superb-fairy-wren singing. A new study overturns long-held theories that bird song is an exclusively male trait. (see item under MEDIA). Photo: John Young.

Computed X-ray Tomography (CT scanning) can be employed to examine otolith growth rings and reveal the age and growth rates of fishes. Danswell will work with Marta Vidal-Garcia and Scott Keogh (EEG).

### Director/ Acting-Director arrangements

Kieran Kirk will step down from the role of Director of the School on April 18, to take up the role of Dean of the College of Medicine, Biology and Environment. The Director's position will be advertised in the coming weeks. The three Heads of Division will rotate the Acting-Directorship over the period encompassing the appointment process, with Stefan Bröer taking on the role from Tuesday April 22.

### School seminar

**Andrew Cockburn** (EEG), the outgoing Director of the College of Medicine, Biology and the Environment will deliver a School seminar entitled '[Should I go or should I stay: the evolutionary causes and consequences of dispersal](#)' on Wednesday 16 April 4-5pm in the R.N. Robertson Theatre, R.N. Robertson Building (Bldg 46).

## PHDs SUBMITTED

**Pamela Fallow** (Magrath Lab, EEG) submitted her thesis entitled 'Interspecific eavesdropping and alarm call identification by superb fairy-wrens (*Malurus cyaneus*).'

**Danswell Starrs** (Fulton Lab, EEG) 'An ear for records: can otoliths unveil the early life history mysteries of freshwater fishes?'

## PHDs AWARDED

**Jixun Luo** (CSIRO-Miller Lab, PS) 'Understanding the impact of starch synthase IIa on starch structure and function in the cereal endosperm'.

## MEDIA

A [paper](#) published in *Nature Communications* by **Naomi Langmore** (EEG) and colleagues has been featured [in the media](#). The study shows that, contrary to conventional wisdom, song in female passerines is both common and ancestral.

**Linda Rayor**, a Visiting Fellow in the Rowell Lab (EEG), has been featured in the *Canberra Times* in an article about social huntsman spiders, entitled '[Spiders' paradise in our backyard](#)'.

## WELCOME

**Adam Taranto** has started a PhD in the Solomon Lab (PS). Adam has come from Melbourne where he completed Honours at LaTrobe University. He is studying the role of epigenetics and small RNAs in plant pathogenesis.

## FAREWELL

**Andrew Chew** (IT) has left RSB and has taken up the role of IT Manager at the ANU Mathematical Sciences Institute.

## Lab Leader profile: Michael Jennions (EEG)



### Lab research focus:

Bizarre evolutionary games arise when species evolve to have males and females. These

include resolving sexual conflict, choosing mates, battles over parental care, how to allocate sperm and whether to make sons or daughters. In jargon: we study the consequences of anisogamy.

### Greatest achievement:

Scientifically it would be presumptuous for me to say. My favourite projects have, however, always involved collaborating with extremely talented women and men: fieldworkers, statisticians and theoreticians. In hindsight, convincing them I have some skill to bring to these project seems like a major achievement.

### Next big thing:

I hope a student that I have supervised going on to make a major contribution to evolutionary theory. I suppose the boring answer is something to do with harnessing new technology to address key questions... but I am old-fashioned enough to believe a smart person with creative insights ultimately does more to advance science.

### What do you see as future challenges for your field of research?

Pessimistically, I'd say convincing the taxpayer to continue to fund evolutionary biology that does not have any immediately obvious applied angle. Optimistically, I'd say reminding colleagues in all fields (from economics to linguistics to medicine) of the amazing insights that can be gained by including an evolutionary perspective. It makes sense of nonsense.

**Chris Cazzonelli** (Pogson Lab, PS), has left RSB and taken up a new position as Senior Lecturer in Plant Molecular Biology at the University of Western Sydney, Hawkesbury Institute for the Environment. Chris and his team will investigate how molecular regulatory mechanisms determine crop acclimation and adaptation to a changing environment. He will maintain strong collaborations with colleagues from ANU and the ARC Centre of Excellence in Plant Energy Biology.

**Brani Igic** (Magrath Lab, EEG) has left for a two-year postdoc at the University of Akron, USA, to work on avian egg colour and mimicry.

## PAPERS ACCEPTED

Barratt, KS, Glanville-Jones, HC, & Arkell, RM, The *Zic2* gene directs the formation and function of node cilia to control cardiac situs, *Genesis*

Binning, SA, Barnes, JI, Davies, JN, Backwell, PRY, Keogh, JS, & Roche, DG, Ectoparasites modify escape behaviour, but not performance, in a coral reef fish, *Animal Behaviour*

Bradbury, JH, & Denton, IC, Mild method for removal of cyanogens from cassava leaves with retention of vitamins and protein, *Food Chemistry*

Charmantier, A, Garant, D & Kruuk, LEB, (eds), *Quantitative genetics in the wild*, Oxford University Press

Dalziel, AH, Welbergen, JA, Igic, B, & Magrath, RD, Avian vocal mimicry: a unified conceptual framework, *Biological Reviews*

Dobson, BM, Procter, DJ, Hollett, NA, Flesch, IEA, Tschärke, DC, *et al.*, Vaccinia virus F5 is required for normal plaque morphology in multiple cell lines but not replication in culture or virulence in mice, *Virology*

Hanna, E, & Cardillo, M, Clarifying the relationship between torpor and anthropogenic extinction risk in mammals, *Journal of Zoology, London*

Hanna, E, & Cardillo, M, Predation selectively culls medium-sized species from island mammal faunas, *Biology Letters*

Henshaw, JM, Marshall, DJ, Jennions, MD, & Kokko, H, Local gamete competition explains sex allocation and fertilization strategies in the sea, *American Naturalist*

Kokko, H & Jennions, MD, The relationship between sexual selection and sexual conflict, In *Sexual conflict* (S Gavrillets & WR Rice, eds.) Cold Spring Harbor Press

Layton, C, & Fulton, CJ, Status-dependent foraging behaviour in coral reef wrasses, *Coral Reefs*

Lehtonen, J, & Kokko, H, What is sex? *Current Biology*

Leigh, A, Hill, R, & MC Ball, Leaf shape influences spatial variation in photosynthetic function in *Lomatia tinctoria*. *Functional Plant Biology*

Li, J, Reichel, M, & Millar, A, Determinants beyond both complementarity and cleavage govern strong miR159 efficacy in *Arabidopsis*, *PLoS Genetics*

Noble, MM, Pratchett, MS, Coker, DJ, Fulton, CJ, *et al.*, Foraging in corallivorous butterflyfish varies with wave exposure, *Coral Reefs*

Marsh, KJ, Moore, BD, Wallis, IR, & Foley WJ, Continuous monitoring of feeding by koalas highlights diurnal differences in tree preferences, *Wildlife Research*

Marsh, KJ, Moore, BD, Wallis IR, & Foley WJ, Feeding rates of a mammalian browser confirm the predictions of a "foodscape" model of its habitat, *Oecologia*

Moore, BD, Andrew, RL, Kulheim, C, & Foley, WJ, Review: Explaining intraspecific diversity in plant secondary metabolites in an ecological context, *New Phytologist*

Myburg, AA, Grattapaglia, D, Tuskan, GA, *et al.*, (+65 authors including Kulheim, C & Foley, WJ), Genome sequence of *Eucalyptus grandis*: A global tree crop for fiber and energy, *Nature*

Nemri, A, Saunders, DG, Anderson, C, Jones, D, *et al.*, The genome sequence and effector complement of the flax rust pathogen *Melampsora lini*, *Frontiers in Plant Science*

Pinho, P, Patenaude, G, Ometto, JP, Meir, P, *et al.*, Ecosystem protection and poverty alleviation in the tropics; an historical evolution of policy making in the Brazilian Amazon, *Ecosystem Services*.

Pink, J, & Fulton, CJ, Right tools for the task: intraspecific modality in the swimming behaviour of coral reef fishes, *Marine Biology*

Smith, NE, Vrieling, A, Attwood PV, & Corry B, Binding and channelling of alternative substrates in the enzyme DmpFG: a molecular dynamics study, *Biophysical Journal*

Smith, NE, Swaminathan Iyer, K, & Corry B, The confined space inside carbon nanotubes can dictate the stereo- and regioselectivity of diels-alder reactions, *Physical Chemistry Chemical Physics*

van de Weg, MJ, Meir, P, Williams, M, *et al.*, Gross primary productivity of a high elevation tropical montane cloud forest, *Ecosystems*

Whitaker, J, Ostle, NJ, Nottingham AT, Meir, P, *et al.*, Microbial community composition explains soil respiration responses to changing carbon inputs along an Andes-to-Amazon elevation gradient, *Journal of Ecology*.