Australasian Evolution Society

24-27 November 2019

UNSW, Sydney

Welcome to AES2019

On behalf of the conference organisers, I'd like to welcome you to Sydney! We would also like to take this opportunity to show our respects and acknowledge the Bedegal and Gadigal people of the Eora Nation and the Elders past and present who are the Traditional Custodians of the Land on which this meeting takes place. We're all very excited to host you this year and it's been an incredible turnout! **As you would have seen from recent emails, we will be voting on changes to the association during the Business Meeting on Wednesday during lunch. I urge you all to attend to we have the best possible representation of the Australasian evolutionary community.**

A few house rules during the conference:

1. **Please make sure your talk is uploaded at the registration desk no later than the break before your session.** Loading it during your talk session is not possible.
2. The Twitter hashtag for the conference is **#AES19** but please respect no hashtag / no camera symbols on slides / posters.
3. There will be a photographer taking candid photos during the poster session, so if you do not wish to be photographed, please speak to one of the conference organisers. These photos will be posted on our website following the conference.
4. We've tried very hard to be 100% sustainable so **please recycle your plastic badge sleeve** in the receptacles at the front door before leaving the venue on Wednesday.

Enjoy the conference! - Michael Kasumovic

Plenaries

Dr. Michael Whitehead is a Postdoctoral Research Fellow in the School of Biological Sciences at the University of Queensland. His research aims to understand the influence animal behaviour exerts on plant evolution and ecology, as well as the reciprocal effects plants have on animal perception and cognition. His discoveries contribute to a basic understanding of how plan biodiversity is generated and maintained, how the sensory ecology of animals is shaped by plants, and how landscape and ecology combine to influence gene flow and diversity in both plants and animals.

Dr. Emma Sherratt is an ARC Future Fellow in the School of Biological Sciences at the University of Adelaide. Her research aims to understand how the diversity of animals and plants we see around us today came about. She is an expert in morphometrics - the statistical analysis of organismal form (shape and size), which she applies to the study of morphological trait evolution at macroevolutionary scales. She also uses these methods to answer questions pertaining to systematics and phylo-genetics, biogeography, environmental adaptation, developmental biology and palaeontology.

Dr. Oliver Griffith is the AES Early Career Research Award winner and an ARC DECRA Fellow in the School of BioSciences at the University of Melbourne. His research uses wildlife models to address critical questions in ecology and evolution. Most notably, he aims to address how mutation and selection support the evolution of complex traits in animals, such as the evolution of new organs. To achieve this, his research integrates genomics, developmental biology, ecology, and ecophysiology using terrestrial vertebrates. His current projects use genetic, genomic, and cell biology techniques to identify how complex components of pregnancy have evolved.

Winners of the AES Student Research Awards are featured in the Student Plenary session and include **Emily Roycroft** from the University of Melbourne for her paper, "Phylogenomics uncovers confidence and conflict in the rapid radiation of Australo-Papuan rodents", published in *Systematic Biology*; **Damien Esquerré** from the Australian National University for his paper, "How mountains shape biodiversity: The role of the Andes in biogeography, diversification, and reproductive biology in South America's most species-rich lizard radiation (Squamata:Liolaemidae)", published in *Evolution*; and **Erin Macartney** from the University of New South Wales for her paper, "Effects of nutrient limitation on sperm and seminal fluid: a systematic review and meta-analysis", published in *Biological Reviews.*

SUNDAY NIGHT OPENING NIGHT SOCIAL will be held at The Whitehouse on the UNSW campus (map of campus on back cover). Please join us for drinks and nibbles from 6pm onwards. Registration will be available during the social.

	Day 1, Monday, November 25th		
8:00	Registration (8:00-8:45)		
8:45	Welcome (8:45-9:10) - Michael Kasumovic		
9:10	Student Plenaries: Erin Macartney, Damien Esquerré, Emily Roycroft (9:10-10:10); Chair - Lisa Schwanz		
	Room 5	Room 6	Room 7
	Co-Evolution Genomics; Chair - Rebecca Adrian	IUSSI; Chair - Simon Robson	Genetic Rescue; Chair - Timothee Bonnet
10:15	**Carla Sgro** - Sex-specific adaptation to environmental change	**Simon Tierney** - Social biology of an allodapine bee from the Blue Mountains Range	**Georgina Wood** - Combining genomics and meta'omics with phenotypic and environmental associations to facilitate future-proofing strategies in marine forest restoration
10:30	**Tom Keaney** - Do males matter for mitochondrial genome evolution?	**Ben Oldroyd** - A single gene defines a subspecies: the thelytoky locus of the Cape honey bee	**Yael Rodger** - Past and present genetic connectivity of a highly fragmented, endangered grassland daisy, *Rutidosis leptorrhynchoides*
10:45	**Mikko Kivikoski** - Effects of crossing-over interference on genomic recombination landscape	**Paul Broekhuyse** - A single gene is driving a sub-speciation event in South African honey bees	**Paul Rymer** - Adaptive capacity to climate change through genomic variation and phenotypic plasticity
11:00	Coffee break (11:00-11:30)		
	Diversity and Variation; Chair - Rose Andrew	IUSSI; Chair - Simon Tierney	Plasticity; Chair - Dan Noble
11:30	**Alyssa Weinstein** - Reproductive isolation among allopatric and sympatric sexually deceptive Cryptostylis orchids that share a pollinator	**Chris Reid** - Weaver ant-inspired rules for self-assembly and swarm robotics	**Loeske Kruuk** - Will selection result in trait evolution? Examples from the wild
11:45	**Carlos Joaquin Pavon Vazquez** - Confirming the Australian origin of the Komodo dragon and revealing ancient gene flow with Australian monitor lizards through an integrative approach	**Boris Yagound** - Do honey bees faithfully transmit epigenetic marks to their offspring?	**Erik Wapstra** - Developmental plasticity: within and between population variation in phenological reaction norms in a lizard
12:00	**Runa Kvamme Ekrem** - Aiming for the moon: Maintenance of local adaptation to tidal regime	**Carmen da Silva** - Thermal adaptation with altitude in Fijian bees	**Belinda van Heerwaarden** - Constraints in upper thermal fertility limits suggest increased vulnerability to climate change
12:15	**Julia Ryeland** - Parent-offspring conflict and selection on integrative traits in emus	**Thomas Gillard** - Honey bee STDs: under-reported, under-studied, or a non-issue?	**Vanessa Kellermann** - Comparing thermal performance curves across traits: how consistent are they?
12:30	**Simon Griffith -** Colour, sperm and chromosomal inversions across the contact zone of two sub-species of finch in northern Australia	**Daisy Kocher** - Queen pheromones and the evolution of eusociality	**Daniel Noble** - Plastic responses to novel environments are biased towards phenotype dimensions with high additive genetic variation

Long talks; short talks

	Room 5	Room 6	Room 7
12:35	**Jason Kennington** - A long goodbye – a genomic view of a species extinction	**Tarli Conroy** - Social immunity in the honeybee: self-sacrifice and forced ejection	**Luke Amjah** - Redundancy analysis identifies environmental drivers of phenotype in a recent invasion
12:40	**Oliver Stuart** - Glacier genetics: phylogenetic placement and species delimitation of the Rocky Mountain locust, *Melanoplus spretus*, using glacier-preserved samples		
12:45	**Lunch / IUSSI Meeting (12:45-1:45) (Room 4)**		
	Parental Effects; Chair - Angela Crean	**Sexual Selection; Chair - Bruno Buzatto**	**Adaptation; Chair - Paul Rymer**
1:45	**Madeleine Beekman** - Ectothermic vertebrates are too cool to care – explaining the absence of parental provisioning in reptiles, amphibians and fish	**Thomas White** - Flies exploit predictable perspectives and backgrounds to enhance iridescent signal contrast and mating success	**Collin Ahrens** - Adaptation to temperature among closely related tree species with similar distributions is driven by divergent evolution
2:00	**Mylene Mariette** - Embryonic eavesdropping on parental calls: implications for parent-offspring conflict	**Pietro Pollo** - When should male mate choice evolve?	**Brodie Foster** - Anthropogenic deforestation drives flight loss in a wing-polymorphic stonefly
2:15	**Nathan Burke** - Intralocus sexual conflict explains diverse patterns of inheritance of parental effects	**Upama Aich** - Should females mate with experienced males? Indirect effects of sexual experience on offspring fitness.	**Beatrice Apirajkamol** - Effect of oxidative stress on phenotype, gene function, and telomere length in *Helicoverpa armigera* (Lepidoptera: Noctuidae)
2:30	**Joanna Rutkowska** - How strong are non-genetic paternal effects compared to maternal ones? A meta-analysis of studies with dietary exposure in full-factorial experimental setup	**Suzanna Gooley** - Understanding the effect of demographics and background on mate preference and courtship investment in humans.	**Mitchell Hodgson** - Genetic and Non-genetic sources of variation in thermal traits in a Temperate Australian Lizard
2:45	**Sarin Tiatragul** - Anolis lizard nesting behaviour enhances embryo survival and development in urban areas	**Michaela Parascandalo** - Effects of increased sexual interaction on female reproductive success in Drosophila melanogaster are contingent on the history of sexual selection	**Alizee Meillere** - Effects of early-life anthropogenic noise exposure on development in the zebra finch
3:00	**Robert Laird** - Parental age effects and the evolution of senescence	**Jon Evans** - Dietary stress increases the total opportunity for sexual selection and modifies selection on condition-dependent traits	**Jake Martin** - Sex and drugs: impacts of the pharmaceutical pollutant fluoxetine on female mate choice in the guppy, *Poecilia reticulata*
3:05	**Renee Firman** - Maternal stress leads to offspring sex ratio skews that mitigate male-male competition	**Maider Iglesias-Carrasco** - Sex in the City: sexual selection and urban colonization in passerines	**Lucinda Aulsebrook** - Evolutionary impacts of the pharmaceutical pollutant fluoxetine on *Daphnia magna*
3:10	**Xiyan Xiong** - Modelling the effect of caesarean section and formula feeding on the development of human gut microbiota		**Claudia Crowther** - Examining the link between seasonal differences in pivotal temperature and egg mass in the freshwater turtle, *Chrysemys picta*
3:15	**Coffee break (3:15-3:45)**		

	Room 5	Room 6	Room 7
	Population Genetics; Chair - Mark de Bruyn	**Plasticity; Chair - Dan Noble**	**Adaptation; Chair - Mylene Mariette**
3:45	**Rosalyn Gloag** - Do invasive honey bees benefit from the high mutability of their sex locus?	**Stephen Bonser** - Costs and benefits of plasticity in the size at reproduction in short-lived plants	**Christina Miller** - Using genetically divergent populations of zebrafish to better understand the interaction of genetic and thermal determinants of performance
4:00	**Katarina Stuart** - Local signatures of founding populations confound examination of adaptive divergence in invasive populations	**Hayley Cameron** - Can competitive asymmetries maintain offspring size variation	**Chun-Chia Chou** - Effects of temperature on reproductive timing in a tropical ectotherm
4:15	**Iva Popovic** - Twin introductions by independent invader mussel lineages are both associated with recent admixture with a native congener in Australia	**Lisa Schwanz** - Extreme temperatures and loss of canalization	**Brooke Zanco** - The role of nutrition in mediating larval trait responses to temperature is population specific in *Drosophila melanogaster*
4:30	**Joshua Thia** - The scale of genotype-phenotype-environment associations in panmictic marine populations	**Geoff While** - Co-evolutionary dynamics between life history, ecology and social living in lizards	**Anais Pessato** - Early acoustic experience affects adult thermoregulation in the heat in zebra finches
4:45	**Arndt Haeseler** - Model finding in sequence evolution	**Atsumi Keisuke** - Hybridization reduces the variation of male sexual phenotype in F1 hybrids: A meta-analysis	**Avishikta Chakraborty** - How does genetic variation modulate developmental plasticity in response to changing environmental conditions?
5:00	**Stephanie Chen** - Advancing genomic resources for myrtle rust research and management	**Louise Noergaard** - Experimental evolution of parasite dispersal strategies in spatially dynamic landscapes	**Luke Holman** - The genetic architecture of sex- and age- specific fitness
5:05	**Sarah Leeson** - Population genetics of Australia's introduced dung beetles		**Rebecca Fox** - Mate choice decisions and parenting strategies in degrading environments: mind the evolutionary trap
5:10	**Jessica O'Hare** - Signatures of selection in the Sydney rock oyster		**Fonti Kar** - Life in cold blood: What can we learn from snakes and lizards about the evolution of life-history trade-offs?
5:15	**Careers in Science Communications, Olivia Majorin, Target Malaria, Imperial College London (5:15-6:15); Chair - Lee Rollins** **Sponsored by the University of New South Wales Faculty of Science**		

	Day 2, Tuesday, November 26th		
8:00	Registration (8:00-8:45)		
8:45	Plenary, Dr. Michael Whitehead (8:45-9:35); Chair - Michael Kasumovic		
	Room 5	Room 6	Room 7
	Speciation; Chair - Jason Kennington	Reproduction - Chair; Boris Yagound	Mitochondrial Evolution; Chair - Ondi Crino
9:40	**Melanie Wilkinson** - Divergence in the auxin pathway mediates convergent evolution and speciation in an Australian wildflower	**Camilla Whittington** - Gene expression and facultative oviparity in an Australian lizard	**Ekta** - The role of mito-nuclear interactions in conferring resistance to extreme heat stress in *Drosophila melanogaster*
9:55	**Rose Andrew** - Genomic and spatial landscapes of speciation in Eucalyptus	**Charles Foster** - Convergent evolution of placental function in the Australian sharpnose shark	**Rebecca Adrian** - Dropping like flies: mitochondrial genetics, Mother's Curse, and climbing performance in the fruit fly
10:10	**Caroline Dong** - When polymorphism and monomorphism meet: secondary contact between divergent lizard lineages	**Joshua Christie** - The evolution of self-incompatible mating types	**Venkatesh Nagarajan Radha** - Sometimes, it is not okay to be selfish! Selection against selfishly replicating mitochondrial plasmids in the slime mould
10:25	Coffee break (10:25-10:50)		
	Behaviour; Chair - Emily Remnant	Sexual Selection; Chair - Jon Evans	Life History; Chair - Alistair Senior
10:50	**Claudio Fichtel** - Do cognitive abilities predict survival in wild grey mouse lemurs, *Microcebus murinus?*	**Angela Crean** - Boosting sperm performance with seminal fluid supplementation	**Christofer Clemente** - Using a bio-inspired climbing robot to explore the evolution of optimality in climbing lizards
11:05	**Dominic Mason** - Repeatability of Aversive Learning in Zebrafish	**Jessica Hadlow** - Context-dependent selection and ejaculates	**Anastasia Shavrova** - What works best? Life history trade-offs for early and late life fertility in extreme conditions
11:20	**Lizzie Speechley** - Investigating the relationship between sociality and cognition in the Western Australian magpie	**Joe Moschilla** - Identification of seminal fluid proteins responsible for the inhibition of remating in female *Teleogryllus oceanicus*	**Julian Beaman** - On the evolutionary potential of metabolic allometry and growth rate
11:35	**Jules Smith-Ferguson** - Slime moulds 'learn' when taking a risk is safe	**Megan Head** - How do early and late life stress ineract to affect senescence?	**Justin Chan** - When to disperse in a patchy world: Exploring life history trade-offs for a saprotrophic fungus
11:50	**Celine Frere** - Inheritance pathways of social plasticity in nature	**Tejinder Singh Chechi** - Does sexual conflict mediate female effect on sperm competition?	**Mariana Alvarez Noriega** - Macroecological patterns in reproductive scaling
12:05	**Caitlin Creak** - Learning in predation	**Malgorzata Lagisz** - Research weaving: bringing meta-analysis, mapping and bibliometrics together	**Michael Garratt** - Mating without fertilization promotes a reproduction versus lifespan trade-off in female mice
12:10	Lunch (12:10-1:00)		

	Room 5	Room 6	Room 7
	Behaviour; Chair - Susi Zajitschek	**Life History; Chair - Alizee Meillere**	**Adaptation; Chair - Rebecca Fox**
1:00	**Terry Ord** - Predation on animals with conspicuous ornamentation and behaviour: a field test using robotic prey	**Goncalo Igreja Andre** - Quantitative genetics insight into the coevolution male and female genitalia in house mouse (*Mus musculus domesticus*)	**Nathan Butterworth** - The smelly sex lives of blowflies
1:15	**Bob Wong** - Territorial aggression and the maintenance of colour morphs in cichlid fishes	**Meng-Han Chung** - When to produce and release sperm? An experimentally ablation surgery clarifying how male mosquitofish control over his ejaculate traits	**Evatt Chirgwin** - Physical and physiological impacts of ocean warming alter phenotypic selection on sperm form
1:30	**Lauren Harrison** - Aggressive males and friendly females? Sex differences in the variation and repeatability of animal personalities	**Jake Penny** - Development of microfluidic devices as a platform for sperm chemotaxis analysis	**Adriana Rebolledo Navarro** - Assessing thermal performance of early life stages of a marine ectotherm
1:45	**Rose O'Dea** - Animal Personality and Behavioural Syndromes in both Means and Variance	**Rowan Lymbery** - Environmental effects on ejaculates and the consequences for offspring fitness	**Teresa Kutz** - Diet mediates adaptation to increased temperature
2:00	**Ivan Vinogradov** - "Handedness" in fish: stimuli-dependence and repeatability	**Matthew Hall** - How sex differences in a host can alter the evolution and epidemiology of a pathogen	**Amanda Pettersen** - Investigating mechanisms underlying countergradient adaptation to cool climates in wall lizard embryos
2:15	**Rachel Irwin** - Thermoregulatory behaviour as a function of habitat patchiness	**Sally Drapes** - Effect of habitat ephemerality on life-history	**Zac Wylde** - Sexual asymmetry in the condition-dependence of genitalic and somatic trait integration
2:20	**Coffee break (2:20-2:45)**		
	Co-Evolution; Chair - Martino Malerba	**Life History; Chair - Matt Hall**	**Adaptation; Chair - Katheryn Hodgins**
2:45	**Shinichi Nakagawa** - What explains co-phylognetic divergence between hosts and symbionts?	**Dustin Marshall** - Why do organisms grow?	**Maddie James** - The nature of parallel evolution in an Australian wildflower
3:00	**Alexander Mikheyev** - Ecological success by parasites in spite of massive bottlenecks during host shifts	**Carlos Aguilar-Trigueros** - Measuring fungal life-history traits to predict fungal ecology	**Sean Layh** - Mitochondrial experimental evolution: testing the role of thermal selection and nuclear background in shaping population frequencies of mitochondrial haplotypes
3:15	**Nicole Fortuna** - Modelling host-shift dynamics in coevolving host-parasite systems	**Andre Nogueira Alves** - From Food to an Egg – How does protein affect egg production and development in *Drosophila melanogaster*	**Kiara L'Herpiniere** - The effect of solar radiation on the evolution of egg pigmentation in Australian passerines
3:30	**Perry Beasley-Hall** - Parallel gene losses in an endosymbiont are associated with independent host transitions to a subterranean lifestyle	**Alexander Gangur** - Eco-evolutionary consequences of resource abundance	**Lachlan King** - Effects of genetic drift on additive genetic variance can promote rapid adaptation to environmental change
3:45	**Environmental genetics for biodiversity, biosecurity and monster hunting - Prof. Neil Gemmell (3:45-4:30); Chair - Lee Rollins**		
4:30	**Upstairs Bar / Poster Session and Drinks (4:30-5:30)**		
5:30	**Using Gene Drive in Wild Populations (5:30-6:45); Chair - Lee Rollins** **A University of New South Wales Grand Challenges Event**		

You are invited to the event: Using gene drive in wild populations
26 Nov | 5.30pm | The Roundhouse, UNSW Kensington Campus

Synthetic gene drive technology has the potential to spread an edited gene throughout a population over a small number of generations. Some modifications could lead to the elimination of entire populations.

The potential benefits of this technology to humanity are substantial - we could control the spread of invasive species and even eradicate mosquito-borne diseases like malaria. But what are the barriers to creating successful gene drives? And what are the risks and unintended consequences of releasing self-driving, quick-spreading gene technologies into the wild? Under which conditions should we consider the use of this technology?

This event assembles experts from across the globe leading both the science and the debate around this technology:

- Professor Neil Gemmell, Department of Anatomy, University of Otago
- Olivia Majorin, Target Malaria, Imperial College London
- Dr Owain Edwards, Environmental & Synthetic Genomics, CSIRO (Perth)
- Chair - Associate Professor Lee Rollins, School of Biological, Earth and Environmental Sciences, UNSW

Neil Gemmell is the Professor of Reproduction and Genomics at the University of Otago. His research blends ecology, population, conservation and evolutionary biology with leading-edge genomics technologies. A recurring theme in his research is that of reproduction, with past and current projects spanning mating systems and mate choice, sperm function, sex determination, sex allocation and inter-sexual genomic conflict. A strong commitment to conservation has led Neil to develop new tools and research services for key end users in the conservation and biosecurity arenas, with the genetic control of pests a prominent research focus. Neil has recently gained global recognition for a modern-day investigation of one of the world's most mysterious bodies of water, Loch Ness, using the latest environmental DNA approaches.

Olivia Majorin is the Communication Manager of Target Malaria, a non-for profit research consortium composed of 14 institutions across three continents aimed at developing and sharing an innovative vector control tool using genetic technologies to modify mosquitoes to save millions of lives from malaria in sub-Saharan Africa. After receiving her Master's Degree in Journalism from the Institute des Hautes Études des Communications Sociales in Brussels, Belgium she worked as a Communication Manager for a Foundation and Art Centre in Brussels. She then worked for *Verbatims*, an NGO specialising in the prevention of identity conflicts in Côte d'Ivoire. She then joined the communication team of *Avocats Sans Frontières*, an international NGO specialising in defending human rights and access to justice across the world. In 2016, she joined Target Malaria as the Communication Manager and works with teams in Burkina Faso, Ghana, Mali and Uganda, and at the global level to grow the communication of Target Malaria.

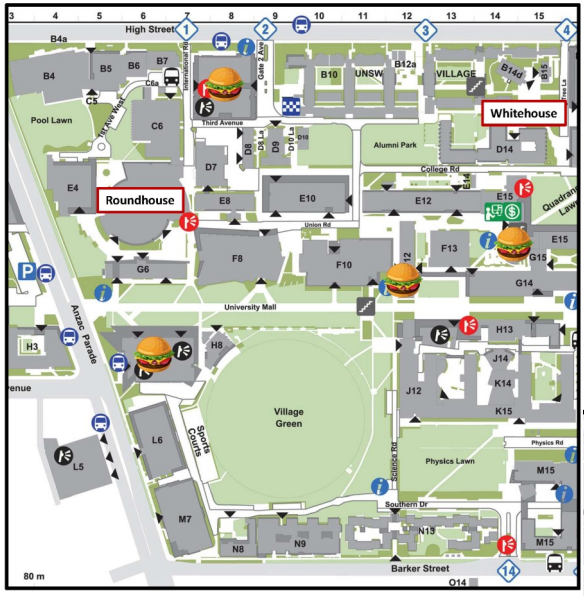
Owain Edwards is the leader of the *Environment & Biocontrol Domain* of CSIRO's Future Science Platform in Synthetic Biology. Within this platform, Dr Edwards oversees projects delivering environmental outcomes including gene drives for biological control, and engineering resistance/resilience in threatened ecosystems. Dr. Edwards' research focused initially on the ecological and molecular basis of aphid-host plant interactions, then expanded to investigate molecular interactions of aphids with their environment more broadly – including epigenetic regulation of aphid polyphenism. Building on his expertise in invertebrate genomics, he leads a CSIRO research group in Environmental Genomics, which includes a research team focused on genetic pest control technologies.

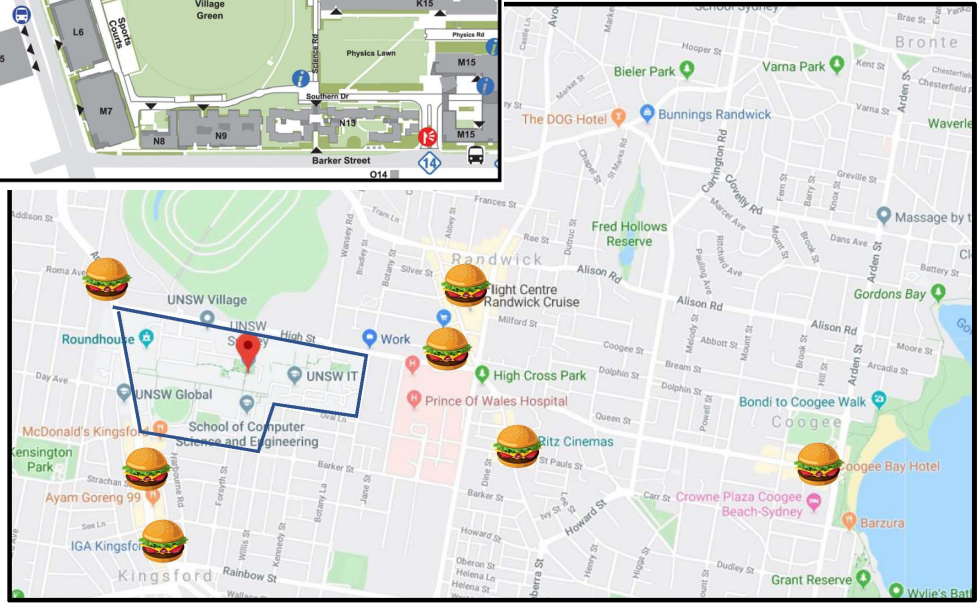
	Day 3, Wednesday, November 27th		
8:00	**Registration (8:00-8:45)**		
8:45	**Plenary, Dr. Emma Sherratt (8:45-9:35); Chair - Michael Kasumovic**		
	Room 5	**Room 6**	**Room 7**
	Microbial Evolution; Chair - Essi Havula	**Co-Evolution Genomics; Chair - Robert Dugand**	**Adaptation; Chair - Jessie Tanner**
9:40	**Wai Hoe Chin** - From test-tubes to the gut: Does bacteriophage T4 evolve to persist in a life-like mucus layer of a gut-on-a-chip?	**Tim Connallon** - Quantifying maladaptation during the evolution of sexual dimorphism	**Christopher Friesen** - Experimental examination of telomere length in a polymorphic dragon
9:55	**Amanda Norton** - Accumulation and competition amongst Deformed wing virus genotypes in naïve Australian honeybees	**Filip Ruzicka** - Is the X chromosome a hotspot for sexually antagonistic polymorphisms? Biases in current empirical tests of theory	**Szymon Drobniak** - Evolving rainbows: deriving a spectrum of phylogenetic signals in avian colour evolution
10:10	**Md Imtiazul Islam** - Exploring the adaptation of the bacterial flagellar motor using ancestral sequence reconstruction and synthetic microbiology	**Robert Griffin** - Why does male-biased gene expression evolve so rapidly?	**Ian Gooi** - Predicting adaptive evolution in heterogeneous environments from standing genetic variation
10:25	**Matt Baker** - Directed evolution of the ion channels of the bacterial flagellar motor	**Richard Edwards** - Investigating the evolution of complex, novel traits using whole genome sequencing and molecular palaeontology	**Iliana Medina** - Understanding ontogenetic variation in warning signals
10:30	**Coffee break (10:30-11:00)**		
	Life History; Chair - Thomas White	**Plasticity; Chair - Rosalyn Gloag**	**Sexual Selection; Chair - Megan Head**
11:00	**Alistair Senior** - Dietary Macronutrient Content, Age-Specific Mortality and Lifespan	**Hamza Anwer** - Obesogenic diets as a novel evolutionary stressor: the effects on phenotypic variation and its evolutionary implications	**Rob Brooks** - Gendered Fitness Interests: A Proposal Explaining How Family Composition Affects Socio-Political Attitudes and Behaviours
11:15	**Essi Havula** - Gene-diet interaction in the evolution of macro-nutrient tolerance and lifespan – lessons from the fruit fly	**Cameron Hosking** - Transgenerational Integration of Nutritional cues into Phenotype Development	**Susi Zajitschek** - Sex and Power: sexual dimorphism in trait variability and its evolutionary and statistical implications
11:30	**Ilaria Venturelli** - The evolution of life-history trade-offs: disentangling the effects of development time and body size on the evolution of lifespan	**Ondi Crino** - Mitochondria as the powerhouses of life-history strategies: testing links between the develop-mental environment, cellular metabolism, and fitness	**Bruno Buzatto** - Morph-specific artificial selection and correlated evolution between fighters, scramblers and females in a male dimorphic mite
11:45	**Jussi Lehtonen** - The evolution of longevity and the drift barrier	**Harrison Eyck** - Birds from matched developmental environments breed faster	**Ifeoma Ugwuanyi** - Connecting the pieces: evolution of genitalia in Cimicoidea (Heteroptera: Cimicomorpha)
12:00	**Vanessa Higham** - Complex interactions involving mitochondrial haplotype, nuclear genotype, sex and diet shape lifespan in Drosophila	**Roshmi Rekha Sarma** - DNA methylation levels affect performance, behaviour, morphology and mortality in larval amphibians	**Samuel Lymbery** - The outcome of sexual conflict depends on the social environment
12:15	**Felix Zajitschek** - Direct and cross-generational effects of nutritional and temperature stress	**Corinne Letendre** - The Evolution of Immune Function With Dietary Manipulation in the Decorated Cricket (*Gryllodes sigillatus*)	**Khandis Blake** - Sexual selection, mating markets, and female-female competition in humans: A tale of sexy selfies

12:30	Lunch (12:30-1:30) and AES Business Meeting (Room 4)		
	Room 5	Room 6	Room 7
	Life History, Chair - Felix Zajitschek	Diversity and Variation, Chair - Andrew Robinson	Phylogenetics, Chair - Will Cornwell
1:30	**Russell Bonduriansky** - Does ageing proceed similarly in natural and captive populations?	**Cara Conradsen** - Repeatability of spontaneous mutational parameter estimates in *Drosophila serrata*	**Caitlin Cherryh** - A new test for treelikeness in phylogenetic data
1:45	**Eve Cooper** - Diversity of ageing patterns in a highly promiscuous cooperative breeder	**Juliet Byrnes** - The relationship between neutral genetic diversity and species diversity: Four models	**Jason Bragg** - A macroscopic view of cryptic lineage diversity
2:00	**Uddyalok Bangabash** - The cost of being cool	**Heidi Wong** - Fitness consequences of a selfish supergene	**Rob Lanfear** - Confidence and truth in phylogenomics
2:15	**Helma Nirubini Niranjan** - Among-genotype variation and the role of diet in reproductive senescence	**Robert Dugand** - Does mutation explain standing genetic variation in complex phenotypes?	**Simon Ho** - Testing for correlations in evolutionary rates
2:30	**Joe Tomkins** - Towards an evolutionary understanding of human twinning	**Alexander Sentinella** - Seeing the forest for the genes: Using the q-profile to better detect landscape patterns of genetic differentiation	**Timothee Bonnet** - How fast are wild vertebrate populations evolving today?
2:45	**Emily Richardson** - Testing Werner's complex life cycle theory: measuring energy fluxes across ontogeny	**Bill Sherwin** - Evolution of Information or Entropy	**Michael Jennions** - The Selfish Reference Gene
3:00	Coffee break (3:00-3:30)		
	Microbial Evolution, Chair - Matt Baker	Adaptation, Chair - Szymon Drobniak	Eco-Evolution, Chair - Jason Bragg
3:30	**Mike McDonald** - Tracking horizontal gene transfer in experimental microbial populations	**Kathryn Hodgins** - Mating system impacts the genetic architecture of adaptation to heterogeneous environments	**Yi-Kai Tea** - Angels in disguise: Hybridisation in the marine angelfishes is widespread and occurs between highly divergent lineages
3:45	**Nathan Lo** - Genome erosion is linked to increased mutation rate in Blattabacterium endosymbionts	**Isobel Booksmyth** - No support for the fitness-associated sex hypothesis in natural Daphnia populations	**Will Cornwell** - Ecosystem consequences of Darwin's abominable mystery: how angiosperms changed the global C cycle
4:00	**Andrew Robinson** - Evolution on the microscope: observing the development of antibiotic resistance in individual bacterial cells in real time	**Gowri Rajaratnam** - Sex brushes and dirty flies: The development and evolution of a novel abdominal appendage in male sepsid flies	**Matthew Symonds** - Phylogeny and ecology predict medicinal use in Australian plants
4:15	**Emily Remnant** - Virus sex in a honey bee pathogen		**Martino Malerba** - Many small or few large? How prey size evolution affects food web productivity
4:30	Plenary Dr. Oliver Griffith (4:30-5:20), Chair - Lisa Schwanz		
5:20	Student Awards and Closing Comments (5:20-5:45) - Mike Kasumovic		
5:45	Conference Dinner (5:45 - 10:30)		

Posters

1. **Henry Arenas-Castro** - Conspecific gamete precedence: theory and data
2. **Elroy Au** - Beating the heat? Population genomics of recent climate change in an Australian bird
3. **Andrew Berg** - Mitogenomics of the recently extinct Australasian southern elephant seal
4. **Michael Charleston** - Splitspace: a crazy idea to do phylogenetic inference
5. **Damian Dowling** - X chromosome genotype, zygosity status, and Wolbachia infection status affect life-history outcomes in Drosophila melanogaster
6. **Robin Hare** - Not always fairer: intrasexual competition and sexual selection in female bushcrickets with temporary sex role reversal
7. **Frederick Jaya** - Genetic population structure and potential reproductive character displacement within a cryptic species complex of *Uperoleia toadlets* (Anura: Myobatrachidae)
8. **Sara Loo** - An evolutionary model of within-host mutation and between-host pathogen transmission
9. **Yeuk Man Movis Choy** - The combined effects of temperature and nutrition on thermal tolerance and sensitivity to climatic change
10. **Justin McNab** - Bridge building behaviour of weaver ants
11. **Thi Nhu An Nguyen** - The evolution of antibiotic resistance through horizontal gene transfer in Helicobacter pylori
12. **Katharine Prata** - Cryptic and porous species boundaries in mesophotic corals
13. **Alex Skeels** - Distinct phases of diversification shaped the radiation of a large plant genus (Hakea: Proteaceae) and the origin of the Southwest Australian biodiversity hotspot
14. **Kalya Subasinghe** - Reliability and validity of linear measurements for trait size estimations in birds
15. **Jessie Tanner** - The evolution of genital morphology: baculum shape diversification in muroid rodents
16. **Amy Tims** - A phylogeny of Australian freshwater fishes
17. **Ana Caroline Vasconcelos** - Can your grandparents' life stressors influence how sexy you are?
18. **Blake Wyber** - The Impact of Environmental Context on Sexual Conflict in the Seed Beetle *Callosobruchus maculatus*
19. **Zhuzhi Zhang** - Does elicitation of anti-predator defence during development affect long-term fitness?
20. **Yong Zhi Foo** - The impact of sexual selection on sex differences in immune function: A meta-analysis
21. **Zac Wylde** - Parental breeding age effects on descendants' longevity interact over two generations in matrilines and patrilines





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