



Australasian Evolution Society



ANU - CANBERRA
DECEMBER 14TH TO DECEMBER 16TH 2022



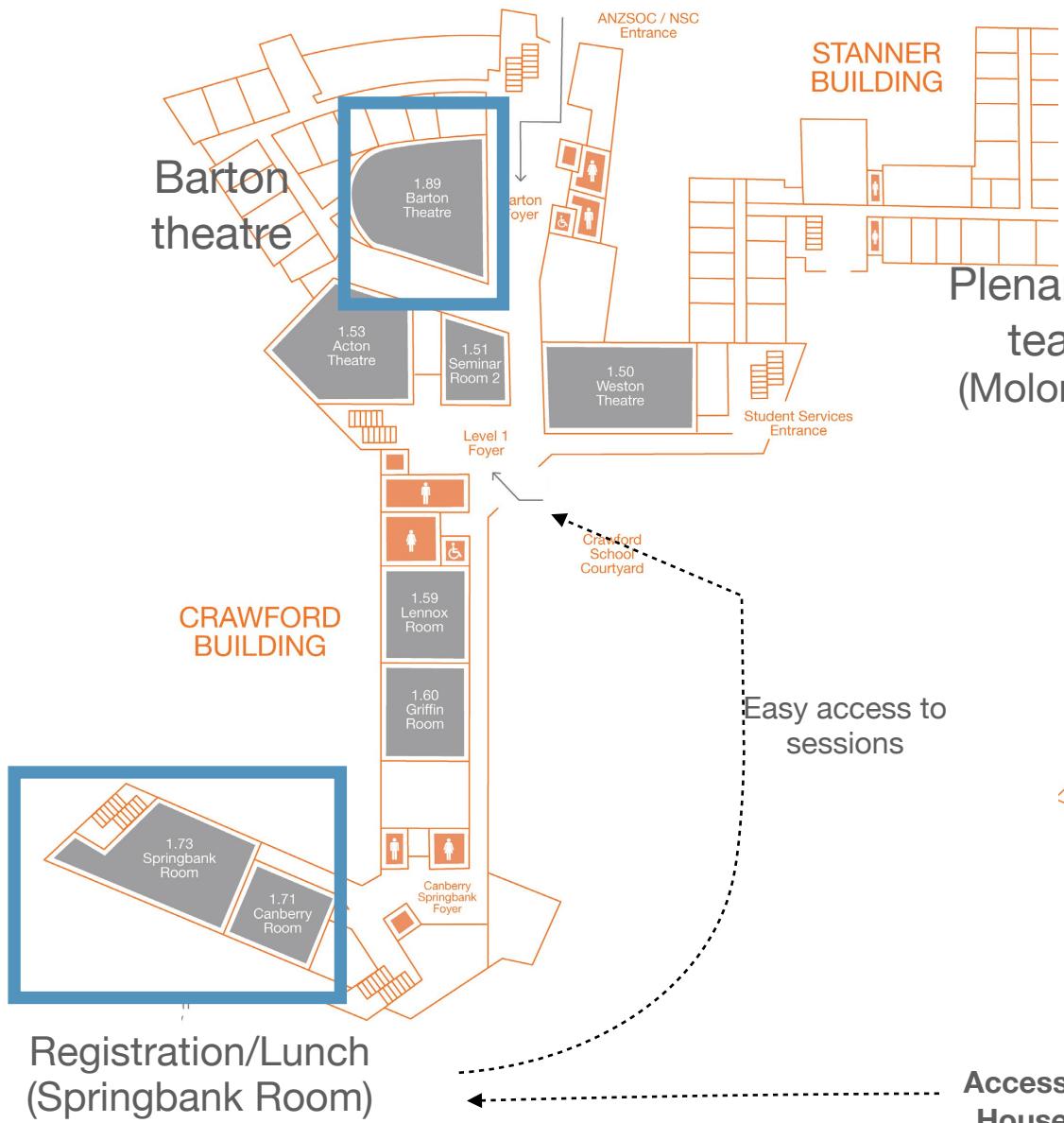
1. Map of venue
2. General program
3. Long talks schedule
4. Flash talks schedule
5. Details of social events
6. COVID safety

1. MAP OF VENUE

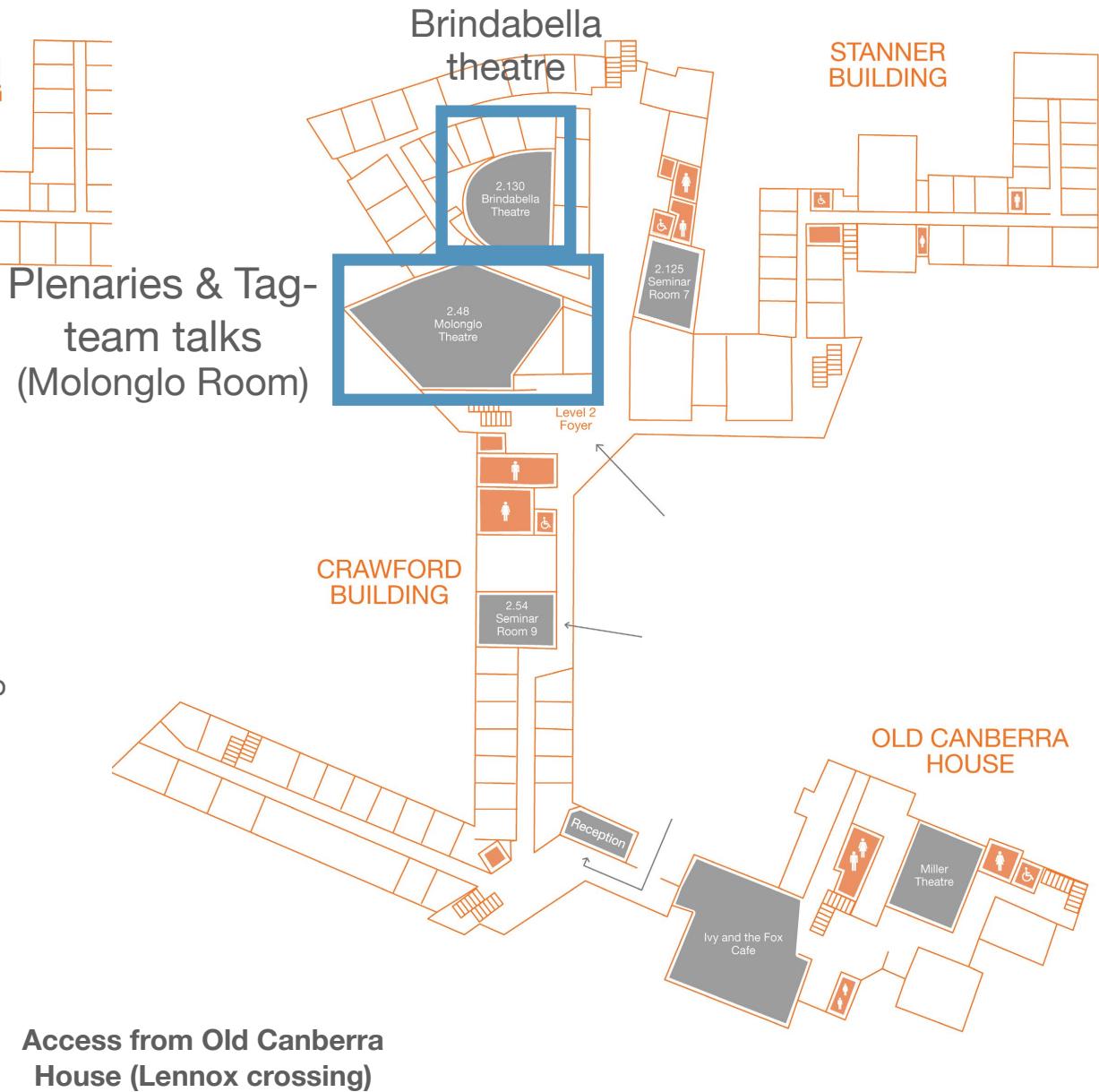


1. MAP OF VENUE

LEVEL 1



LEVEL 2



2. GENERAL PROGRAM

AEST	DAY 1 (Dec 14th)	DAY 2 (Dec 15th)			DAY 3 (Dec 16th)		
09:00		HOUSEKEEPING 9:00 AM - Molonglo room			HOUSEKEEPING 9:00 AM - Molonglo room		
09:15		Melanie Wilkinson - Adaptive divergence in shoot gravitropism creates hybrid sterility in an Australian wildflower			Patrice Pottier - Developmental plasticity in thermal tolerance		
09:30							
09:45					How does climate shape traits, distributions and diversity of insects? Lessons from native bees (R. Gloag, V. Kellerman, C. Da Silva, M. Elmer)		
10:00							
10:15							
10:30							
10:45							
11:00							
11:15							
11:30							
11:45							
12:00							
12:15							
12:30							
13:30							
13:45							
14:00	Welcome (2 to 2:30pm, Molonglo room)						
14:15							
14:30							
14:45							
15:00	Evolving microbial communities in the lab (M. McDonald, S. DeScally, C. Blake, G. Howells, S. Huda)	Behaviour 1 (Molonglo)	Macroevolution 1 (Barton)	Sexual selection 1 (Brindabella)	Behaviour 2 (Molonglo)	Macroevolution 2 (Barton)	Conservation (Brindabella)
15:15							
15:30	ARVO BREAK 3:30 PM to 3:45 PM						
15:45							
16:00	Phylogenetic methods (Molonglo)	Evolutionary Ecology (Barton)	Plasticity (Brindabella)	Flash talks 1 (Molonglo)	Flash talks 2 (Molonglo)		
16:15							
16:30							
16:45							
17:00	Social event at Badger & Co (Kambri)			ECR Chat: Successes, rejections and lessons as an early career researcher			
17:30					Awards and closing event at Botanic Gardens		
later							

3. LONG TALKS

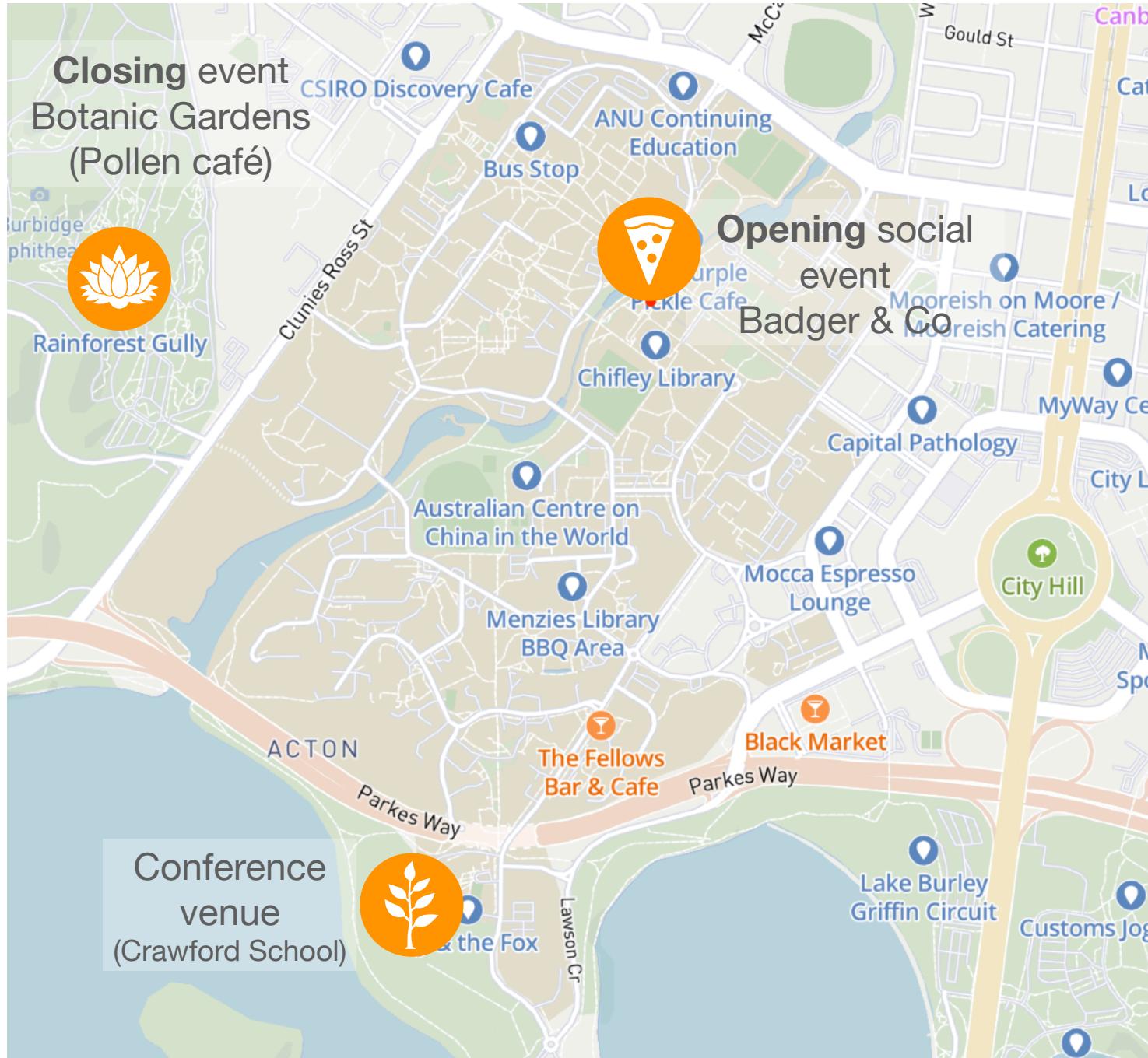
DAY 1				DAY 2				DAY 3		
TIMES	MOLONGLO	BARTON	BRINDABELLA	TIMES	MOLONGLO	BARTON	BRINDABELLA	MOLONGLO	BARTON	BRINDABELLA
→	Phylogenetic methods	Evolutionary ecology	Plasticity	→	Behavioural evolution	Genomics	Life-history 1	Infection & Host-parasite interaction	Sexual selection 2	Life-history 2
15:45 - 16:00	Frederick Jaya Finding tree topologies from an alignment using site-rate variation	Andrew Letten Why resource dynamics matter in microbial communities	Movis Choy How long-term adaptation to combined thermal-nutritional stress affects plasticity of thermotolerance	11:00 - 11:15	Shinichi Nakagawa The future of meta-analysis in ecology and evolution	Chuan Lei Prevalence, extent and predictors of introgressive hybridisation in anemonefishes	Alistair Senior Genes, Diet and Lifespan in <i>Drosophila</i>	Alexander Mikheyev Origins of honey bee viruses	Daniela Wilner Are some populations of facultatively parthenogenetic stick insects becoming obligately asexual?	Amanda Pettersen How does the cost of brooding scale with offspring size?
16:00 - 16:15	Caitlin Cherryh A comparison of methods for quantifying treelikeness	Kristoffer Wild Metabolic consequences of sex-reversal in two species of lizard: a test of the like genotype and like phenotype hypotheses	Jared Lush Anticipating change: the impact of seasonal heterogeneity and local adaptation on thermal tolerances	11:15 - 11:30	Adam Bode Romantic love evolved by co-opting mother-infant bonding: Introducing a new model	Lachlan King The influence of genetic background on the mutational variance of body size in <i>Drosophila serrata</i>	Dustin Marshall Quantifying the costs of ontogenetic transitions	Emily Remnant Antiviral RNAi profiles reveal replicating viruses in a honey bee parasite	Soleille Miller Genetic and phenotypic consequences of asexual reproduction in wild populations of a facultative parthenogen	Luisa Fitzpatrick Senescence in a viviparous reptile
16:15 - 16:30	Thomas Wong MAST: Phylogenetic Inference with Mixtures Across Sites and Trees	Alexandros Sotiropoulos Global genomic analyses of wheat powdery mildew reveal association of pathogen spread with historical human migration and trade	Claudia Crowther Is being plastic actually fantastic? How plasticity shapes the evolution of environmental sex determination.	11:30 - 11:45	Rob Brooks How Might Artificial Intelligence Influence Human Evolution	Jennifer Evans Assessing eco-evolutionary dynamics and inbreeding depression in an iconic Australian bird using genomic methods	Laura Wilson Sex differences in allometry for phenotypic traits in mice indicate that females are not scaled males	Nathan Butterworth Sex differences shape susceptibility to infection	Emily Beasley An intergeneric comparative investigation into the courtship behaviour of three <i>Stigmatopora</i> species of pipefish	Russell Bonduriansky Dietary restriction fails to extend life in stressful environments
16:30 - 16:45	Simone Blomberg Models for the evolution of trait covariance matrices using Lie group methods	Geoff While Do maternal thermal effects on basking behaviour facilitate adaptive divergence?	Simon Hart Phenotypic plasticity promotes species coexistence	11:45 - 12:00	Rachael Brown Cultural Canalisation: Robust inheritance beyond the germline	Coley Tosto Sex-biased gene expression reveals how sexual dimorphism evolves in pipefish	Caitlin Andrews The Nutritional Ecology of Human Mortality	Upama Aich Effects of psychoactive pollution on sex-specific behavioural variation	Sarah Flanagan What can behaviour, ecology, and genetics tell us about the evolution of sexual dimorphism? A case study using pipefish	Carlos Aguilar SYMBIOSIS SHAPES EVOLUTION OF SIZE AND FUNCTION OF SPORES ACROSS THE FUNGAL KINGDOM
16:45 - 17:00	Xia Hua Modelling speciation process on phylogeny	Avneet Kaur Genetic basis of adaptation in contrasting environments of an Australian wildflower	Greg Walter Hidden genetic variation in plasticity provides the potential for rapid adaptation to novel environments	12:00 - 12:15	Lindell Bromham Why do hot countries have spicy food? The challenges of testing evolutionary hypotheses using cross-cultural data	Jane Melville Integrating fossils and genomics to reconstruct the decline of the threatened Mountain Dragon, <i>Rankinia diemensis</i>	Chris Barker In silico evidence for the evolution of ageing driven by fluctuating environments	Vayani Abeyasinghe The evolutionary trajectory of invading pathogens in sexually dimorphic host populations	Michael Kearney Parthenogenesis without costs	Ekta Ekta The relative contribution of mitochondrial interactions to male reproductive success at different temperatures
				12:15 : 12:30	Alex Jordan Behavioural Evolution in Lake Tanganyikan Cichlids	William Sherwin Improved Detection of Selection in Genomes (^A)A cuts down false positives/negatives	Gregory Taylor No effect of testosterone or sexual ornamentation on telomere dynamics in free-living superb fairy-wrens: a case study and meta-analysis	Lucinda Aulsebrook Does pharmaceutical pollution alter the spread of infectious disease? A case study using fluoxetine.	Rowan Lumby Direct and indirect transfer of paternal effects across generations via ejaculates	Samuel Ginther How costly is reproduction, really?

3. LONG TALKS

TIMES	DAY 2			DAY 3		
	MOLONGLO	BARTON	BRINDABELLA	MOLONGLO	BARTON	BRINDABELLA
→	Behaviour 1	Macroevolution 1	Sexual selection 1	Behaviour 2	Macroevolution 2	Conservation
14:00 - 14:15	Bruno Buzatto Selection on fighting legs and the outcome of fights in a bulb mite	Keaghan Yaxley Global variation in the relationship between avian phylogenetic diversity and functional dispersion is driven by environmental constraints	Tom Keaney Sex-limited evolution does not reveal intralocus sexual conflict	Chun-Chieh Liao Asymmetric information in mobbing: Everyone matters, but why are leaders special in mixed-species flocks?	Matthew McGee Using Australasian fish biodiversity to illuminate the genomic basis of key innovation	Shiro Ozeki The impacts of a common agricultural pollutant on foraging behaviour and growth in the spotted marsh frog
14:15 - 14:30	Eleanor Hay Environmental and phenotypic constraints of song in honeyeaters	Sarin Tiatragul Blind snakes: Australia's hidden rapid Miocene radiation	Ashley Potter Larger sperm live longer	Jim McLean Cheetahs run fast: how general is the life-dinner principle?	Rhiannon Eastment The convergent evolution of pregnancy in vertebrates	Jarrod Sopniewski Minimising biases in genetic diversity estimates
14:30 - 14:45	Claire Taylor The Fecundity Costs of Building Complex Nests in Birds	Rocio Aguilar Impacts of Quaternary climate change on shaping past reptile and frog communities along a 3000km latitudinal gradient	Anastasia Shavrova Why would you eat your mate? The evolution behind sexual cannibalism.	Marilia Fernandes Erickson The distribution of warning coloration across climate zones in Australia	Living Li The rise of darklings	Oliver Stuart Mutation load in the endangered Lord Howe Island stick insect
14:45 - 15:00	Caitlin Creak Will he walk 1000 miles to fall down at her door? Movement patterns of male Sydney Funnel Web Spiders	Fabian C. Salgado-Roa Ecological consequences of colour polymorphism in spiders	Jess Hadlow The interactive effects of ejaculate age and egg chemical cues on sperm motility	Sanni Silvasti Dynamic colour flashing in moving animals , can it be antipredator defence?	Ryan O'Donnell Detangling the Diurideae (Orchidaceae): Phylogenomics and fungal symbionts provide an updated evolutionary framework	Kelton Cheung Provenance may confound studies of rapid evolution during invasion
15:00 - 15:15	Nikolas Willmott Exploring evolutionary consequences for spider brains through the use of micro-CT	George Jarvis Macroevolutionary patterns in metabolism and development	Chathuranga Dharmarathne Coevolution of morphology and behaviour in sperm transfer context	Ivan Vinogradov General intelligence and its effect on paternity in mosquitofish	Huaiyan Ren The estimation and application of mixture models in phylogenetics	Paige Matheson Population genomics of the invasive pink bollworm, and determining its biosecurity risk to Northern Australia
15:15 - 15:30	Vanessa Penna Goncalves Exploring the social brain hypothesis in spiders	Katarina Stuart Genetics and plasticity are responsible for climate induced ecogeographical patterns in a recent invasion	Callum McDiarmid The genetic architecture of sperm morphology in the long-tailed finch	Scarlett Howard Misperceiving number: Perception of a numerosity illusion in European honeybees and wasps	James Nankivell Genome wide SNPs reveal widespread mitochondrial discordance and convergent evolution in <i>Hydrophis</i> (Elapidae: Hydrophiinae) sea snakes	Luis Mijangos Fragmentation by major dams and implications for the future viability of platypus populations

	DAY 2	DAY 3
TIMES	MOLONGLO	
16:05	Chenke Zang Exploring the winner-loser effect in mosquitofish: Does losing decrease the willingness to approach potential rivals?	Jenna Diehl Physiological response to increasing temperature in two fairy-wren species inhabiting tropical and temperate climates
16:08	Hung Tan The impacts of an agricultural pollutant on sexual traits in male fish	Md Mahmud Al Hasan Is there a difference in the effect of developmental warm temperature stress on inbred and outbred guppy fish (<i>Poecilia reticulata</i>)?
16:11	Jenny Wang The reproductive microbiome during male pregnancy in seahorses	Md Tangigul Haque Variation of thermal tolerance across latitudes in damselflies.
16:14	Lisa Schwanz Climate change, sex reversal and lability of sex determining systems	Rebecca Raynal Impact of fluctuating developmental temperatures on phenotypic traits in reptiles: a meta-analysis
16:17	Q & A	Q & A
16:27	Michael Jennions Alternative reproductive tactics and sperm	Kei-Lin Ooi How does conspicuous colouration affect rates of diversification in Nymphalid butterflies?
16:30	Jigmildmaa Boldbaatar Pathogens and parasites in natural populations of a facultatively parthenogenetic insect	Patricia Henriquez-Piskulich A supermatrix phylogeny of the world's bees (Anthophila): A tool for macroevolutionary analyses
16:33	Jess Herbert A Spider in Ants Clothing - The Pros and Cons of Ant-Mimicry	Silvia Colombo Evolutionary drivers of nest architecture in birds
16:36	Mariel Beiers Experimental evolution of the pangenome	Sam Passmore Cultural categories for kin reflect behavioral differences in English and Hindi
16:39	Q & A	Q & A
16:49	Shatabdi Paul Consequences of ectoparasite infection in damselflies	Diego de Moura Campos Effects of early life diet restriction in different temperatures - a test for reproductive and immune costs
16:52	Emma Sherratt The abridged tale of Peter Rabbit down under	Pablo Recio Santiago Testing the effect of early environment on personality and learning
16:55	Iva Popovic De novo mutation rate in a marine invertebrate	Vibhuti Nandel Can Lithium Power Motility Machinery in E.coli ?
16:58	Q & A	Q & A

5. SOCIAL EVENTS



Wednesday 14th - 5:30 pm



Opening social event
Badger & Co

Drinks & food included

Thursday 15th - 5pm to ~6:30 pm



Successes, rejections and
lessons as an ECR (Barton
theatre)

The aims of this informal chat are to (a) help ECRs feel that they are not alone, and that we all have failures and hurdles; and (b) help ECRs find a good perspective and discuss strategies/approaches people have used to deal with the high stress environment. We will have a panel of early-mid career researchers followed by an informal Q&A/ discussion in which the audience can participate.

Organisers: Sara Ryding & Rowan Lymbery

Friday 16th - 7pm to ~11pm



Closing social event
Botanic Gardens
Canapés, Drinks & Music



Please do not attend unless you are vaccinated (two doses)* & **DO NOT** attend if you have any symptoms of illness (cough, sore throat, feeling unwell). All talks will be streamed online.

We will be wearing **masks indoors** as per ANU policy. We recommend KN95/P2 masks, and these will be provided at the venue. *We will also kindly ask you to wear one if you've forgotten to do so.*

We will provide RATs in case anyone wants to get tested. We encourage testing before attending the conference.

*We will accept medical reasons