



CONFERENCE PROGRAMME 2019

Programme – Saturday 30 November

09:00 – 16:30 **Career Development Workshop for Women** (University of Queensland, Goddard Building [8], room 501)

Programme – Sunday 1 December

08:15 – 15:30 **Pre-conference tour** (Bribie Island Butterfly House)

10:30 – 15:30 **Editorial Board meeting**, *Austral Entomology* (Brisbane Convention & Exhibition Centre, Concord Board Room)

14:00 – 17:00 **Registration desk open** (Brisbane Convention & Exhibition Centre, Plaza Foyer)

17:30 – 19:30 **Conference opening mixer** (Queensland Museum, Grey Street, Level 2 main foyer, access via Whale Mall)

Programme – Monday 2 December

08:00 – 17:00 **Registration desk open** (Brisbane Convention & Exhibition Centre, Plaza Foyer)

08:30 – 09:00 **Welcome to Country and conference opening** (Plaza Room 9-11)

09:00 – 09:45 **Invited presentation**. 2019 SASB Distinguished Career Award, by **Craig Moritz** (Plaza Room 9-11)

09:45 – 10:45 **Keynote presentation** (*sponsored by AES*). Making taxonomy and collections-based research relevant in a changing world, by **Bryan Lessard** (Plaza Room 9-11)

10:45 – 11:15 Morning Break

CHAIR: Geoff Allen
Plaza Room 8

Pest management

11:15 – 11:30 **Hugh Brier**, A lifetime in summer pulse entomology – a field entomologist's memories and perspectives of 40+ years of ever changing pest outbreaks and challenges

11:30 – 11:45 **Piotr Trebicki**, Yield losses associated with Russian wheat aphid infestation; field experiments in Horsham, Victoria

11:45 – 12:00 **Pingyang Zhu**, Exploring the relevance of the ecological traits of parasitoid wasps and nectariferous plants: the new frontier for conservation biological control of pests
[STUDENT]

12:00 – 12:15 **Shamli Shamli**, Testing alternative host *Opuntia* species as potential target for biocontrol agents (*Dactylopius* sp.) previously established in Queensland

12:15 – 12:30 **Geoff Allen**, Australian *Eadya* (Braconidae) as larval endoparasitoids for classical biocontrol of globally invasive Paropsine leaf beetles

CHAIR: David Yeates
Plaza Room 9

SYMPOSIUM: Insect declines

Francisco Sánchez-Bayo, Drivers of the worldwide decline of the entomofauna

Francisco Sánchez-Bayo,
Continued: 30 min presentation

Michael Braby, Are insects and other invertebrates in decline in Australia?

Michael Braby,
Continued: 30 min presentation

Manu Saunders, The Insect Apocalypse narrative: evidence, engagement ethics and research opportunities

CHAIR: Elizabeth Williams
Plaza Room 10

SYMPOSIUM: Invasive ants

Elizabeth Williams, The good in amongst the bad and the ugly: how invasive species further knowledge on understudied native species

Peter Yeeles, Fipronil concentration, forager exposure, and bait shyness in yellow crazy ant management

Chris Burwell, Eradication of African big-headed ant, *Pheidole megacephala* (Formicidae) from Tryon Island, a coral cay in the southern Great Barrier Reef, and accompanying changes in the island's ant fauna

Hadley Keast, Utilising molecular techniques to aid eradication of Red Imported Fire Ants (*Solenopsis invicta*)

Erin Wallace, Monitoring for invasive insects in the Anthropocene: increasing border detection rates to mitigate risk of pest species establishment

CHAIR: Nerida Wilson
Plaza Room 11

Systematics & evolution

Alicia Toon, Species boundaries in *Macrozamia* cycads

Michael Crisp, A phylogenetic analysis of the eucalypts using targeted genes

Paige Maroni, Grasping the diversity of the *Doris* 'kerguelenensis' species complex within the Southern Ocean
[STUDENT]

David Juskiewicz, Phylogeography of *Plesiastrea versipora* (Cnidaria: Scleractinia: Plesiastreidae): an integrated taxonomic approach reveals a cryptic species
[STUDENT]

Nerida Wilson, Australia's first monoplacophoran (Mollusca): diving deep off Western Australia

12:30 – 13:15 Lunch

CHAIR: Andrew Hayes
Plaza Room 8

Pest management

13:15 – 13:30 **Dave Voice**, Diagnostics response to the 2019 detection of Queensland fruit fly *Bactrocera tryoni* on Auckland's Northshore, New Zealand

CHAIR: Michael Braby
Plaza Room 9

SYMPOSIUM: Insect declines

Geoff Gurr, Conservation biological control as a response to global declines of arthropod ecosystem service providers

CHAIR: Elizabeth Williams
Plaza Room 10

SYMPOSIUM: Invasive ants

Andrew Cox, Preventing new invasive insects: a community contribution to biosecurity

CHAIR: Joel Huey
Plaza Room 11

Systematics & evolution

Łukasz Trębicki, Integrative species delimitation of the Australian jumping spider genus *Cytaea* (Araneae: Salticidae)

13:30 – 13:45	Andrew Hayes , An external attractant trap for the small hive beetle (<i>Aethina tumida</i>), a pest of European honeybees	Jesse Wallace , The Australian Bogong moth (<i>Agrotis infusa</i> , Lepidoptera: Noctuidae) 1951-2020: decline and crash	Matt McKinney , Using non-target "citizen science" detections to infer absence of red imported fire ants	Mark Harvey , A molecular phylogeny of the fealloid pseudoscorpions (Feallidae and Pseudogarypidae) reveals ancient Pangean diversification
13:45 – 14:00	Jessica Vereijssen , The introduction, establishment and spread of <i>Tamarixia triozae</i> , a parasitoid of <i>Bactericera cockerelli</i> , in New Zealand	Michael Kearney , A grave situation for Key's Matchstick Grasshopper?	Melinda McNaught , Join the Ant Hunt: the power of passive surveillance in the search for red imported fire ants in South East Queensland	Cor Vink , New Zealand pirates: evolutionary origins and diversity of Zealandia's mimetid spider fauna revealed through morphology and molecular data
14:00 – 14:15	Syed Rizvi , Field management to support beneficial arthropods for IPM on vegetable farms	Heloise Gibb , Long-term responses of desert ant assemblages to climate	Gary Morton , Join The Electric Ant Hunt: where size really does matter	Michael Rix , Phylogeny and biogeography of the open-holed trapdoor spider genus <i>Namea</i> : a highly diverse mygalomorph lineage from Australia's tropical eastern rainforests
14:15 – 14:30	Bob Brown , The pathway to the new classical biological control of invasive <i>Vespula</i> in New Zealand	Chris Sanderson , Reigniting interest: citizen science as a platform for addressing declines in insects and entomologists	Adelaide Power , Foraging of the Leyburn ant in bulloak woodland near Leyburn, Queensland [STUDENT]	Ethan Briggs , A test of the proposed synapomorphies defining the tarantula genera <i>Coremiocnemis</i> and <i>Psednocnemis</i> [STUDENT]
14:30 – 14:45	Dianne Taylor , Biological control of Queensland weeds: long-term achievements	Gary Taylor , Strategic nomination of insects and allied invertebrates for conservation management in Australia	Alihan Katlav , Endosymbionts manipulate sex allocation through adjustment of egg size in a haplodiploid thrips [STUDENT]	Joel Huey , Phylogenomic data reveal a complex biogeographic history for tropical and arid zone trapdoor spiders

14:45 – 15:15 Afternoon Break

	CHAIR: Greg DGLISH Plaza Room 8 Pest management	CHAIR: Gary Taylor Plaza Room 9 SYMPOSIUM: Insect declines	CHAIR: Dianne Taylor Plaza Room 10 Behaviour #1	CHAIR: Catherine Byrne Plaza Room 11 Systematics & evolution
15:15 – 15:30	Greg DGLISH , Flight activity and frequency of phosphine resistance genes in <i>Rhyzopertha dominica</i> (Coleoptera: Bostrichidae) at two nearby bulk grain depots	Melinda Moir , Coextinction risk of herbivorous insects in a biodiversity hotspot	David Yuan , Hymenopteran game of thrones: power shifting in nests of Mud dauber wasp <i>Sceliphron formosum</i>	Matthew Shaw , Deciphering the dermanyssine mites (Acari: Dermanyssinae)
15:30 – 15:45	Ritesh Jain , Combinatorial RNAi: a potential tool for the management of whitefly [STUDENT]	Katja Hogendoorn , The conservation of the green carpenter bee in current and future climates	Shun-ichiro Takano , Host discrimination of a larval parasitoid - millisecond behaviour of <i>Microplitis demolitor</i>	Juanita Rodriguez , Evolution of chemical defences in dalodesmid millipedes
15:45 – 16:00	NO SPEAKER SCHEDULED	Remko Leijds , Conservation success: provision of nesting substrate for green carpenter bee <i>Xylocopa aerata</i> on Kangaroo Island	Dianne Taylor , Impact of cage size on the oviposition of <i>Stomphastis</i> sp. (Lepidoptera: Gracillariidae)	Catherine Byrne , The Caterpillar Key - An interactive key for identifying families of Lepidoptera larvae, including those of Australian biosecurity concern

16:00 – 16:15 Interval and **conference photo (assemble in Plaza Foyer)**

16:15 – 17:30	Rapid-fire talks , chaired by Andy Austin (Plaza Room 9-11)
	Dona Kireta , Does bee diversity improve with restoration effort? [STUDENT]
	Elisabeth Williamson , Reliability of feral honey bee hive density estimates using drone sampling [STUDENT]
	Oliver Stuart , Glacier genetics: phylogenetic placement and species delimitation of the Rocky Mountain locust, <i>Melanoplus spretus</i> Walsh (Orthoptera: Acrididae), using glacier-preserved samples [STUDENT]
	Rocky Putra , How silicon indirectly affects plant nutritional quality for an insect herbivore via impacts on nitrogen-fixing bacteria [STUDENT]
	Yun Hsiao , The second species of <i>Demysus</i> Pascoe, 1872: an Australian cycad weevil pest's one hundred years of solitude (Coleoptera, Curculionidae, Molytinae) [STUDENT]
	Alana Delaine , Systematics of the chalcid wasp genus <i>Psyllaephagus</i> (Hymenoptera: Encyrtidae): parasitoids of lerp insects [STUDENT]
	Braxton Jones , Investigating behavioural challenges for environmental generalists through a study of Australian stick insects [STUDENT]
	Rebecca Vandegeer , Double trouble: can silicon improve plant resistance to insect herbivory and drought?
	Ian Newton , How are we going to protect the coffee industry from Coffee Berry Borer (<i>Hypothenemus hampei</i> (Ferrari); Coleoptera: Curculionidae: Scolytinae) in Papua New Guinea and Australia?
	Martin Brummell , Preparation of honey bees (<i>Apis mellifera</i>) for scanning electron microscopy to image microbial passengers
	Jodie Cheesman , Effect of tree architecture and planting density on mango scale, <i>Aulacaspis tubercularis</i> Newstead and its natural enemies
	Yun Li , Macroevolution of a hyperdiverse invertebrate group at continental scales
17:30 – 18:30	Poster session (Brisbane Convention & Exhibition Centre, Plaza Foyer & Plaza Terrace North)
17:30 – 18:00	General meeting of the Australasian Arachnological Society (meet at Plaza Room 8)
18:30 –	Student Quiz Night 2019 (Hotel West End, 10 Browning Street, South Brisbane)

Programme – Tuesday 3 December

08:45 – 09:00 **Announcements & housekeeping** (Plaza Room 9-11)

09:00 – 10:00 **Keynote presentation** (sponsored by SASB). Fossils, phylogenies and the age of insects, by **Seraina Klopstein** (Plaza Room 9-11)

10:00 – 10:30 **Invited presentation**. Breaking through the barriers – taxonomy and systematics in the Anthropocene, by **Kevin Thiele** (Plaza Room 9-11)

10:30 – 11:00 Morning Break, **Sponsored by Australian Entomological Supplies** (<https://www.entosupplies.com.au/>)

CHAIR: Simon Lawson
Plaza Room 8

Pest management

11:00 – 11:15 **Lara Senior**, Efficacy of ethyl formate against coffee bean weevil, *Araecerus fasciculatus* (Coleoptera: Anthribidae)

11:15 – 11:30 **Helen Nahrung**, Predicting *Sirex* biocontrol success in subtropical Australia: can *Deladenus siricidicola* take the heat?

11:30 – 11:45 **Alexander Piper**, Towards quantitative and high-throughput insect surveillance using DNA metabarcoding
[STUDENT]

11:45 – 12:00 **Mark Blacket**, Detection of invertebrate pests using LAMP (loop-mediated isothermal amplification) assays

12:00 – 12:15 **Muhammad Asrar Chaudhary**, Selectivity of some novel insecticides against *Trichogramma chilonis* Ishii. (Hymenoptera: Trichogrammatidae)

12:15 – 12:30 **Simon Lawson**, Biological control of Australian-origin eucalypt plantation pests requires international collaboration

CHAIR: Geoff Gurr
Plaza Room 9

SYMPOSIUM: Chemical ecology

John Pickett, Chemical ecology for managing ecosystem services in conservation biological control of insect pests

John Pickett,
Continued: 30 min presentation

Philip Stevenson, Sex, Drugs and Ecosystem Services: the paradox of plant toxins in nectar

Philip Stevenson,
Continued: 30 min presentation

Jian Liu, The role of plant volatile organic compounds in mediating the response of sweet potato weevil (*Cylas formicarius* (Fabricius)) to crop-protecting barrier plants

Geoff Gurr, Patterns of volatile compound emission among parasitoid-attracting angiosperms

CHAIR: Michael Kearney
Plaza Room 10

SYMPOSIUM: Orthoptera

Hojun Song, From cricket songs to swarming locusts: elucidating patterns and processes of orthopteran evolution

Hojun Song,
Continued: 30 min presentation

Michael Kearney, Matchstick grasshoppers as model systems for studying local adaptation

Anwar Hossain, Preparing a database of range maps for Australian grasshoppers from 54 years of field observations
[STUDENT]

Ian Aitkenhead, Comparative heat and desiccation tolerance in two genera of matchstick grasshopper (Morabidae)

Kate Umbers, Australia's high-country Orthoptera

CHAIR: Nik Tataric
Plaza Room 11

Systematics & evolution

Daej Arab, Are the evolutionary rates of cockroaches and their *Blattabacterium* symbionts correlated?
[STUDENT]

Perry Beasley-Hall, Digging deeper: parallel genetic evolution in a cockroach symbiont is associated with the repeated acquisition of host burrowing behaviour
[STUDENT]

Craig Rathjen, A potential new genus of scale insects that induce galls on *Melaleuca*
[STUDENT]

Penelope Mills, Ten species in one: no single data source differentiates all species of the *Apiomorpha ovicola* species complex

Yen-Po Lin, An undescribed species of soft scale (Hemiptera: Coccidae) found in Brisbane city centre

Nikolai Tataric, Molecular phylogeny of the minute water bug genus *Nesidovelia* (Hemiptera: Veliidae)

12:30 – 13:15 Lunch

13:15 – 14:15 **Keynote presentation** (sponsored by AAS). Mites on insects: the other other 99%? by **Owen Seeman** (Plaza Room 9-11)

14:15 – 15:00 **Phil Carne Student Prize**, presented by Phil Weinstein (Plaza Room 9-11)
Finalists: **Olivia Davies**, **Braxton Jones** and **Marisa Stone**

15:00 – 15:15 Afternoon Break

CHAIR: Trevor Volp
Plaza Room 8

Pest management

15:15 – 15:30 **Lee-Anne Manning**, Host-recognition of *Cotesia urabae*: enhancing risk analysis of biological control agents through electrophysiological and chemical profiling

15:30 – 15:45 **Nicholas Collinson**, Fungal endophytes producing Lolitrem B and ergovaline offer protection against *Metopolophium dirhodum* on perennial ryegrass
[STUDENT]

15:45 – 16:00 **Nicola Sullivan**, Optimising a combined mealybug pheromone lure for use in New Zealand vineyards

16:00 – 16:15 **Samantha Ward**, Understanding and incorporating aphid parasitoids within IPM strategies in Australian grain crops
[STUDENT]

16:15 – 16:30 **Steven Rice**, A mycoinsecticide for lesser mealworm (*Alphitobius diaperinus*) control

16:30 – 16:45 **Sunita Pandey**, Pesticide regime can negate the positive influence of native vegetation on natural enemy abundance in adjacent crop fields
[STUDENT]

16:45 – 17:00 **Trevor Volp**, Managing *Helicoverpa* spp. in north-eastern Australian grain crops: what is the current state of play?

CHAIR: Jian Liu
Plaza Room 9

SYMPOSIUM: Chemical ecology

Maarten van Helden, New chemistry testing on beneficials

Shirin Roohigohar, Physiological and molecular interactions between Queensland fruit fly larvae, *Bactrocera tryoni*, and tomato fruit
[STUDENT]

Natalia Souza, Exploring a chemo-discrimination tool for *Gonipterus* weevils

Insects and humans #1

Rocio Ponce-Reyes, Entomophagy in Australia: could insects solve the impending food security challenge?

Behaviour #2

Emma Aspin, Come fly with me: searching behaviour of the parasitoid wasp *Goniozus jacintae* in response to susceptible instars of *Epiphyas postvittana*
[STUDENT]

Jorgiane Parish, Why do honey bees collect fungal spores?
[STUDENT]

Lucas Hearn, Extreme parasitism in a social bee: using a whole-of-life-cycle approach to assess selection dynamics at different stages of a bee's life-cycle
[STUDENT]

CHAIR: Michael Kearney
Plaza Room 10

SYMPOSIUM: Orthoptera

Sonu Yadav, Environmental effects on local adaptation, and genetic connectivity of generalist (*Phaulacridium*) versus specialist (*Kosciuscola*) Australian grasshoppers
[STUDENT]

David Hunter, The effects of human activity on outbreaks of wingless grasshoppers (Orthoptera: Acrididae) in the Tablelands of New South Wales

Douglas Lawton, Land degradation and grasshoppers: a hierarchical patch dynamics approach
[STUDENT]

Insects and humans #2

Christine Lambkin, Collecting permits, ethical Research, and Native Title

Ecology and interactions #1

Bernard Doube, Farmer nurseries for the Australia-wide dispersal and establishment of the newly introduced spring-active dung beetle *Onthophagus vacca*

Agasthya Thotagamuwa, Challenges of mass rearing of dung beetles in controlled environments

NO SPEAKER SCHEDULED

CHAIR: Steve Cooper
Plaza Room 11

Systematics & evolution

Jérôme Constant, Changes in Australian large planthoppers or evolution of our knowledge?

James Bickerstaff, Population genomics of the uniquely eusocial beetle, *Austroplatypus incompertus* (Curculionidae: Platypodinae) – cryptic species complex or diverging populations?
[STUDENT]

Lauren Ashmen, Phylogeny and systematics of the longhorn beetle genus *Rhytiphora* (Coleoptera: Cerambycidae)

Linda Semeraro, Taxonomy and identification of *Carpophilus* (Nitidulidae, Coleoptera) species from south eastern Australian almond orchards

Mengjie Jin, Genomic mining of museum collections: mitogenomic phylogeny of Australian longhorn beetles (Coleoptera: Cerambycidae: Prioninae)
[STUDENT]

Ben Parslow, Phylogenomics and biogeography of the parasitic wasp family Gasteruptionidae (Hymenoptera: Evaniioidea)
[STUDENT]

Steve Cooper, Speciation underground in desert aquifers or just another case of hybridisation by blind beetles?

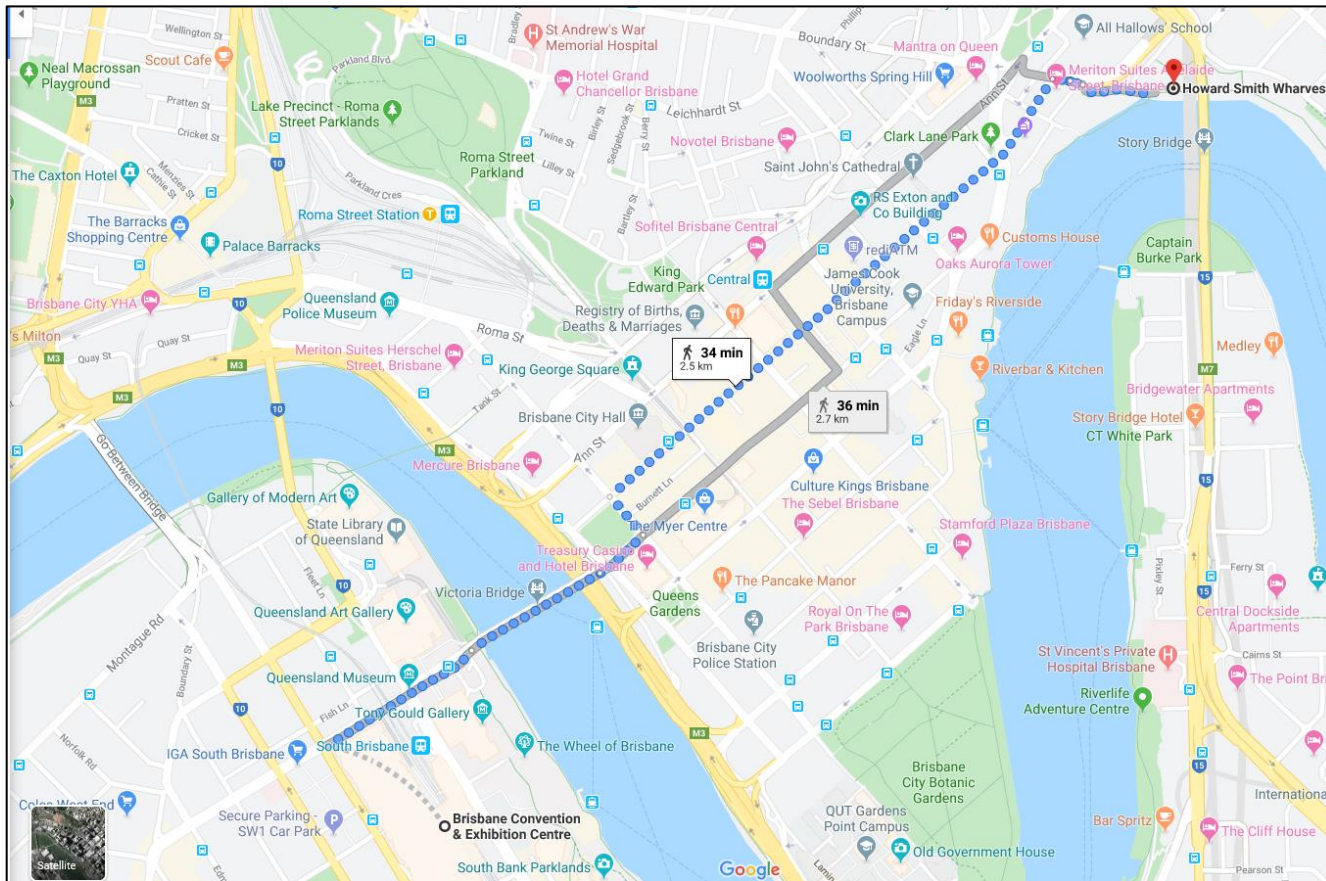
17:00 – 17:05 Interval

17:05 – 17:20 **Invited presentation.** Navigating the daunting grants process – tips from the Australian Biological Resources Study, by **Anthony Whalen** (Plaza Room 9-11)

17:20 – 17:30 Interval

17:30 – 18:30 **Concurrent Annual General Meeting: Australian Entomological Society AGM.** Chaired by **Phil Weinstein** (Plaza Room 8) **Concurrent Annual General Meeting: Society of Australian Systematic Biologists AGM** Chaired by **Mike Rix** (Plaza Room 9)

19:00 – 23:00 **Conference Dinner** (The Rivershed Room, Howard Smith Wharves, 5 Boundary Street, Brisbane City; see map below) *35 minute walk from BCEC via Victoria Bridge (see map below)* *10 minute drive from BCEC via taxi or Uber*



RIVERSHED GUEST ACCESS SITE MAP. Includes a site map, a welcome message, and transportation options: WALKING & CYCLING, CAR, TAXI OR RIDESHARE, and CITYCAT.

Programme – Wednesday 4 December

08:45 – 09:00 **Announcements & housekeeping** (Plaza Room 9-11)

09:00 – 10:00 **Keynote presentation** (sponsored by AES). Bees are not the only flower visitors to global food crops, by **Romina Rader** (Plaza Room 9-11)

10:00 – 10:30 **Pat Marks Medal**, presented by Phil Weinstein (Plaza Room 9-11)

10:30 – 10:45 Morning Break

Table with 4 columns of presentations. Each entry includes a time slot, a chair name and room, a topic title, and a speaker name with a brief abstract. Some entries are marked as [STUDENT].

12:15 – 12:30	NO SPEAKER SCHEDULED	Saba Sinai , Revisiting the status of morphologically divergent populations of <i>Amblyomma triguttatum</i> (Acari: Ixodidae)	NO SPEAKER SCHEDULED	James Lumbers , Taxonomy and phylogenomics of the Australian bristle fly genus <i>Rutilla</i> Robineau-Desvoidy (Diptera: Tachinidae) [STUDENT]
12:30 – 13:15 Lunch				
	CHAIR: Martin Steinbauer Plaza Room 8 Insects and plants	CHAIR: Steve Barker Plaza Room 9 SYMPOSIUM: Ticks and lice	CHAIR: Aimee McKinnon Plaza Room 10 Ecology and interactions #2	CHAIR: Matt Krosch Plaza Room 11 Systematics & evolution
13:15 – 13:30	Ximena Cibils-Stewart , Impacts of endophytic and mycorrhizal fungi on silicon uptake and anti-herbivore defences: threesomes can have unintended consequences? [STUDENT]	Samuel Kelava , Phylogenies from mitochondrial genomes of 120 species of ticks: insights into the evolution of families of ticks and of the genus <i>Amblyomma</i>	Shahrina Tasnin , Population demographic of Queensland fruit fly in subtropical region of Australia [STUDENT]	Zack McIntyre , Phylogeographic structure in Tasmanian glow-worms [STUDENT]
13:30 – 13:45	Scott Groom , Bee community composition relative to crop quality across Australian apple production areas	Telleasha Greay , How much do we really know about tick-borne pathogens in Australia? [STUDENT]	Ngoc Hoan Le , An under-recognised achievement of Australian parasitoids: new data confirms occurrence of <i>Megastigmus zvimendeli</i> in China, India, Israel and Kenya [STUDENT]	Xuankun Li , A preliminary phylogeny of Bombyliidae using anchored enrichment data (Brachycera)
				Insects and humans #3
13:45 – 14:00	Lyn Cook , Birds and bees and how they shape peas	Gerrut Norval , The lesser known members of the ecto-parasitic communities from a long-term study of sleepy lizards across an ecological gradient in South Australia [STUDENT]	Marianne Coquilleau , Seasonality and community composition of parasitoid wasps of four agromyzid leafminers (Diptera: Agromyzidae) in Victoria [STUDENT]	Matt Krosch , Variation in decomposition stages and carrion insect succession in a dry tropical climate and its effect on estimating post-mortem interval
14:00 – 14:15	Jessa Thurman , Natural edge effects on larval mortality of the Diamondback Moth [STUDENT]	Renfu Shao , Mitochondrial genome analysis provides novel insights into the high-level phylogeny and classification of parasitic lice	Jay Iwasaki , Fungicides and their effects on bees: a review of assessments, impacts and interactions	Majeed Shahid , Conspecific density and diet dependent effects on development rate and survival of <i>Aedes aegypti</i>
14:15 – 14:30	Julia Smith , The composition of psyllid communities in Bell miner-associated dieback [STUDENT]	Yalun Dong , Fragmented mitochondrial genomes of two blood-sucking lice of Old World (monkeys, <i>Pedicinus obtusus</i> and <i>Pedicinus badii</i>) (Phthiraptera) [STUDENT]	Matt Elmer , Why are <i>Homalictus</i> bees stuck on mountains in Fiji? Modelling climate and niche with NicheMapR [STUDENT]	Stephen Doggett , Edward Scissorhands and habitat jumping larvae; World's Weirdest Mosquitoes
14:30 – 14:45	Flávia Bonora , Does <i>Paropsis atomaria</i> larval feeding induce chemical responses in <i>Corymbia citriodora</i> subsp. <i>variegata</i> ? [STUDENT]	Wei Wang , Rapid host expansion of the introduced spiny rat louse <i>Polyplox spinulosa</i> (Phthiraptera) among endemic rodents in Australia [STUDENT]	Aimee McKinnon , Monitoring honey bee health during pollination services	Stephen Doggett , Bed bug deltiology: a history to erotica
		Behaviour #3		
14:45 – 15:00	Martin Steinbauer , Specialisation on old eucalypt leaves by <i>Cardiaspina albitextura</i> (Hemiptera: Aphalaridae): characterising sources of variation in the quality of hosts and possible implications for nymphs	Nathan Butterworth , The blowfly waltz: field and laboratory observations of novel and complex dipteran courtship behaviour [STUDENT]	NO SPEAKER SCHEDULED	NO SPEAKER SCHEDULED
15:00 – 15:15	NO SPEAKER SCHEDULED	Shannon Close , Adenotrophic viviparity in an Australian bat fly (Nycteribiidae)	NO SPEAKER SCHEDULED	NO SPEAKER SCHEDULED

15:15 – 15:45 Afternoon Break

15:45 – 16:30 **Wrap-up and prizes** (Plaza Room 9-11)

16:30 – 17:00 **SASB incoming Council meeting** (meet at Plaza Room 8)

Symposia

Monday 2 December

Population declines and the conservation of insects and other terrestrial invertebrates (organisers David Yeates, Gary Taylor & Michael Braby)

ImportANT – invasive ants and insects in the Australasian region (organiser Elizabeth Williams)

Tuesday 3 December

Insect chemical ecology for ecosystem services (organisers Geoff Gurr & Jian Liu)

Orthoptera as model organisms in ecology and evolution (organiser Michael Kearney)

Wednesday 4 December

Ticks and lice (organiser Steve Barker)