

# AES 2025 Day 2

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| 9:00  | Housekeeping  |  |
| 9:15  | <b>ECR Plenary</b><br><b>Paul Battlay</b><br><b>Genomic structural variation drives rapid adaptation in invasive plants</b>                   |  |
|       | <b>Room 1</b>   | <b>Room 2</b>  |
|       | <b>Plasticity. Chair: Dan Noble</b>   | <b>Sexual selection. Chair: ????????</b>   |
| 10:00 | <b>Jade Kannangara:</b> The evolutionary implications of mitochondrial heteroplasmy   | <b>Mathilde Le Levier:</b> The role of iridescent colours in butterfly sexual selection  |
| 10:15 | <b>Giulia Ghedini:</b> Evolving with competitors: what do species maximise and what are the consequences for communities?                     | <b>Taylor Hoster:</b> Thermal plasticity of sexually and naturally selected traits and the influence on adaptation.  |
| 10:30 | <b>Tahlia Fulton:</b> Adaptive nutrition: Cross-protection by amino acid restriction  | <b>Hyoseul Hyun:</b> How sex differences balance genome-wide fitness of facultative asexual organisms?   |
| 10:45 | Morning tea   |  |
|       | <b>Nutrients, guts, antibiotics, immunity. Chair: Damian Dowling</b>  | <b>Morphological evolution/speciation. Chair: Kris Wild</b>  |
| 11:15 | <b>Yu-Pei Tseng:</b> The impact of resource fluctuations on coexistence in a gut microbial community  | <b>Putter Tiatragul:</b> Evolution of Australia's endemic diplodactylid geckos   |
| 11:30 | <b>Alistair Senior:</b> The effects of macronutrients on age-specific mortality. A replicable effect!   | <b>David Brito:</b> Insights on the evolution of skull shape in Australian fossorial elapids   |
| 11:45 | <b>Christopher Brown:</b> Optimising antibiotic, resource covariance and frequency to minimise resistance evolution                           | <b>Ammresh:</b> How would a snake wear a tie? Regionalisation within the elapid vertebral column   |
| 12:00 | <b>Alicia Williams:</b> What does it cost to resist antibiotics? The fitness landscape of rifampicin mutations                                | <b>Sam Campbell:</b> Heavy Metal Predators: diverse patterns of metal enrichment in scorpion weapons   |
| 12:15 |   | <b>Kenzie Melanson:</b> Comparison of sperm availability in hybridizing male <i>Fundulus heteroclitus</i> and <i>F. diaphanus</i> in Porters Lake, Nova Scotia, Canada   |
| 12:30 | Lunch   |  |
|       | <b>Conservation/Phylogenetics. Chair: Giulia Ghedini</b>  | <b>Tag Team Talk. Lead: Daniel Ortiz-Barrientos</b>  |
| 13:30 | <b>Matthew Silcocks:</b> Retracing the stepwise evolution of a deadly human pathogen using ancestral sequence reconstruction                  | 15m <b>Daniel Ortiz-Barrientos:</b> Ecotypes as natural experiments: the making of adaptive traits in <i>Senecio</i><br>5m <b>Jack Price:</b> Defining complexity as an evolvable trait<br>12m <b>Zoe Broad:</b> The role of gene expression during adaptation<br>5m <b>Yulin Sun:</b> Evaluating gene flow inference with forward simulations: A case study of ABBA-BABA<br>10m <b>Maddie James:</b> When does local adaptation lead to reproductive isolation?<br>5m <b>Aparna Thulaseedharan:</b> Leveraging local adaptations for crop improvement: the future from the past |
| 13:45 | <b>Kamryn Carter:</b> Genomic management of a captive breeding program of endangered Southern Stuttering Frogs ( <i>Mixophyes australis</i> ) |  |
| 14:00 | <b>Zenon Czenze:</b> Bridging the gap: combining thermal physiology, ecology and biophysics for conservation                                  |  |
| 14:15 | <b>Patra Petrohilos:</b> When Cells Rebel: using comparative genomics to investigate cancer susceptibility in marsupials                      |  |

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| 14:30                | Anupama Nayak: A global comparative analysis links PFAS contamination with marine fish functional traits   | 5m <b>Charles Zhou</b> : Making the Most of Less in Imputation for Non-Model Species<br>15m Questions |
| 15:00                | Afternoon tea  |   |
|                      | Flash Talks (various topics). Chair: Damien Esquerre   |   |
| 15:30                | Thomas Veldhuis; Apoorva Gopinath; Andres Porras; Claire Larroux; Tina Wu; Arlie Macdonald; Emma Holvast; Jackson Rendall; Peisong Tian; Diana Fisher; Avantika Sharma; Angi De Silva; Matthew Baker |   |
| 16:45<br><br>(~1 hr) | Zoe Kean: How to become a great science communicator   |   |
| 19:00                | Dinner at The Burrow, 52 Russell Street, West End  |   |