

OR194*Phylogenetics and evolution of Australian Nasutitermitinae***Daej Arab**, Stephen Cameron, Theo Evans, Anna Namyatova, Nathan Lo

In Australia, Termites are keystone species and ecosystem engineers in many environments, particularly in arid areas. Australia contains a total of 260 termite species, representing 5 of the 7 generally recognized families worldwide. One important group in Australia is Nasutitermitinae. There are 6 representative genera with over 44 representative species in Australia (of over 200 species worldwide), which are found all across the Australian continent in various ecoregions including temperate forests, semi-deserts, savannah woodland and others. Australian Nasutitermitinae are particularly known for their variability in nest architecture and construction. Despite the ecological and economic importance of the Australian termite fauna, their systematics and evolution is poorly understood. We are constructing a comprehensive phylogeny of the Australian Nasutitermitinae based on mitochondrial and nuclear gene markers and will report our most recent results.