



The University of Hong Kong
School of Biological Sciences

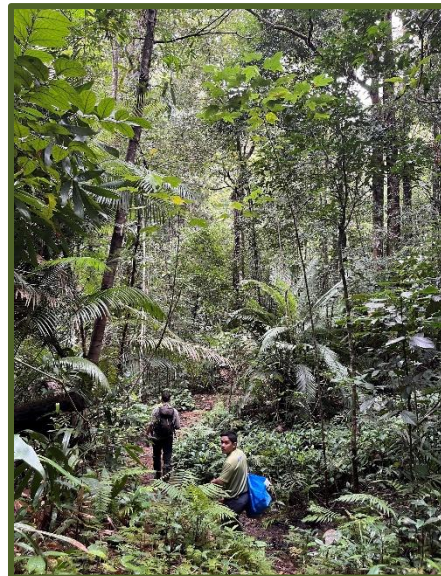
**Qualifying
Seminar**

Taxonomy, Diversity & Responses of Asian Ants Along Latitudinal & Disturbance Gradients

Date: 19th December 2025

Time: 09:30 am

Venue: 3N-01



About the speaker:

Matt Hamer is a PhD candidate within the Insect Biodiversity and Biogeography Laboratory, supervised by Benoit Guénard. Matt's research focuses on the taxonomy of Asian ants and their responses to habitat disturbance across large spatial scales.

Abstract:

Deforestation and subsequent land-use change have disastrous consequences for biodiversity. Drastic shifts in local climate following land conversion is a key driver of community change for ectothermic insects. However, community wide responses may vary according to the assemblage sampled. Low latitude tropical climate adapted communities, with narrow thermal tolerances, may show greater responses to land-use change relative to high latitude communities with broader thermal tolerances. Disturbance sensitivity may therefore be stronger with progressively lower latitudes. Despite the likely disproportional vulnerability of tropical insects, our understanding of disturbance responses with latitude has yet to be fully investigated. A synergy of challenges, such as continent-wide standardised sampling protocols, long-term sampling time frames, and both insect taxonomic and distribution knowledge shortfalls combine to thwart our understanding of continent spanning disturbance responses within insects.

In my thesis I aim to produce a robust dataset comprising 1000 plots of leaf litter ants from 0-40° N, sampling three habitat types within each sampling locality representing site level disturbance gradients. Multiple dimensions of diversity including alpha, beta and gamma diversity, as well as various functional diversity will be investigated. I will then use specimens obtained from our sampling, as well as museum visits, to revise an ant genus (*Leptogenys*) within the Indomalayan region, providing much needed taxonomic resolution for a group of speciose, and behaviourally diverse predatory ants.