

Qualifying Seminar

Tropical forest microclimate buffering and its effect on distribution of ectotherms

Date: 11/06/2021 (Friday)

Time: 1300

Venue: 6N-11 + ZOOM

About the speaker:

Bartosz Majcher is a PhD student in Dr. Louise Ashton's lab. He is interested in forests and microclimates they provide. He is intergrating aspects of thermal biology, ecophysiology and LIDAR-based remote sensing into his research

Abstract:



With a stronger focus on microclimate studies in the last decade scientists are getting better at detecting the variability in temperature and humidity at increasingly finer spatial scales. Despite an improvement in modelling the microclimate, our knowledge of its realised effect on organisms remains lacking.

My thesis aims to improve our understanding of distribution and functioning of ectotherms by integrating forest microclimate modelling with measurements of insect thermal biology (CTMax). My thesis will focus on investigating the role of feng shui woods (primary-like forests) in Hong Kong in providing microclimate buffering in a matrix of disturbed habitats; exploring this role in affecting distribution of butterflies and ants in the landscape; as well as by incorporating LIDAR remote sensing, modeling the vertical shift in microclimate conditions and a vertical habitable space within the canopy.