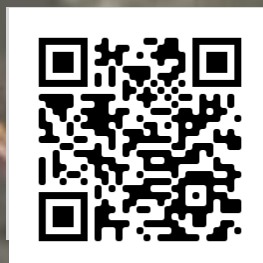


Testing the exposure hypothesis – how spiders’ life history traits shape their thermal vulnerability

Date	25 th Nov 2022
Time	16:00 (UTC+8)
Venue	3N01 + Zoom



You can also email us to require the Zoom link
(check SBS website → NEWS & EVENTS)

Spiders are dominant predators present in majority of terrestrial ecosystems, but their vulnerability to climate change remains understudied—particularly in tropical Asia. We explored spiders’ thermal ecology across Hong Kong’s habitats, utilising their unique life history characteristics to develop a mechanistic understanding of how their thermal tolerance evolves and varies. We created a novel and valuable thermal dataset on a previously underrepresented taxon and developed generalisable predictions of how behavioural traits translate to climate vulnerability in arthropods in habitats they occupy. We exposed novel patterns in thermal tolerance of spiders and with these findings illustrate how characteristics determining arthropods’ exposure to larger range and higher temperatures can reflect in their higher thermal tolerance. By testing this exposure hypothesis, we can better predict winners and losers following climate change



Bartosz Marek Majcher

I am a PhD candidate in Biodiversity and Environmental Change Lab at The University of Hong Kong. In my research I focus on understanding thermoregulation and drivers of temperature vulnerability and preferences of ectotherms and their implications for ecosystem functioning. I combine fine scale thermal physiology measurements of arthropods and plants with a variety of field methods involving canopy access, habitat microclimate measurements, and forest structure modelling using LIDAR. I aim at better understanding the realised impacts of global warming, identifying temperature vulnerability, and exploring the importance and conservation potential of microclimate-buffered habitats. In my free time I like walking and listening to folk music.