



The University of Hong Kong  
School of Biological Sciences

# Public Seminar

## Movement ecology, animal personalities, and the conservation of endangered freshwater turtles

**Date: 27 March 2025 (Thu)**

**Time: 14:00**

**Venue: KBSB 6N11**



### About the speaker:

Wing Sing (Vincent) Chan is a PhD candidate in the Global Change and Tropical Conservation Lab at The University of Hong Kong. His research focuses on the movement and behavioural ecology of freshwater turtle.



### Abstract:

Due to a multitude of human-induced rapid environmental changes, freshwater turtles present one of the most threatened vertebrate groups globally. By integrating advanced biologging technologies with robust analytical frameworks, this thesis aimed to provide detailed conservation-guiding questions regarding animal movements and behaviours in two sympatric species of freshwater turtles in Hong Kong: the Beale's eyed turtles (*Sacalia bealei*) and the big-headed turtles (*Platysternon megacephalum*). Through biotelemetry, I characterized space use in a population of *S. bealei*. Home range and displacement vary by reproductive class and body size, with males showing larger ranges and greater movements. Findings also suggested greater preference for pool-riffle systems and behavioural flexibility with seasonal changes. Additionally, I quantified the activity profiles of *P. megacephalum* through accelerometers, revealing low activity in the species, with sex-specific activity pattern. I further demonstrated that temperature and precipitation positively influenced their activity budgets, with potential ramification in future climatic scenarios. Lastly, I explored animal personalities in *S. bealei* through standardised behavioural assays. Findings indicated personality traits along bold-shy and exploration-avoidance continuums, with unwarranted links between personality and trappability. Overall, this thesis enhances understanding of movement and behaviours in endangered freshwater turtles, informing conservation strategies that address intrinsic and environmental factors affecting their ecology.