



The University of Hong Kong
School of Biological Sciences

**Qualifying
Seminar**

Investigating the impacts of water catchment on ecosystem functioning and fauna connectivity in Hong Kong freshwater ecosystem: implications to habitat restoration and biodiversity enhancement

Date: 29 January 2024

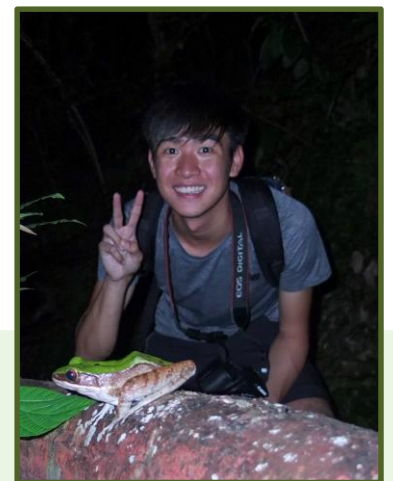
Time: 1500

Venue: KBSB 6N-11



About the speaker:

Wai Ho Cheng is an MPhil student supervised by Dr. Simon Sin. He studies the impacts of artificial water catchment on the community structure, ecological functioning and population connectivity in the local freshwater ecosystem.



Abstract:

Freshwater ecosystems are classified as one of the most important habitats, nurturing an exceptionally high number of organisms worldwide. Meanwhile, they are also among the most threatened ecosystems, facing various anthropogenic disturbances such as water pollution, overexploitation, and habitat destruction. Flow regulation through damming has been reported to have adverse impacts on biodiversity, ecological functioning, and the genetic diversity of aquatic fauna. In Hong Kong, water catchment is the most common water conservation strategy, extending across 33% of the territory. The potential impacts of these catchments have been increasingly recognized throughout the years. However, the disturbance of catchwaters on the local freshwater ecosystems remains understudied. Thus, this project aims to evaluate the impacts of artificial catchwater on freshwater ecosystems, specific to (1) Evaluate the impacts of water catchment on community structure and ecosystem functioning of the obstructed streams; (2) Scrutinize the impact of artificial water catchment on genetic connectivity and diversity of targeted freshwater fauna. The results of this project are expected to provide insights into the improvement of catchwater structures to benefit future habitat rehabilitation projects in Hong Kong.