The University of Hong Kong
School of Biological Sciences

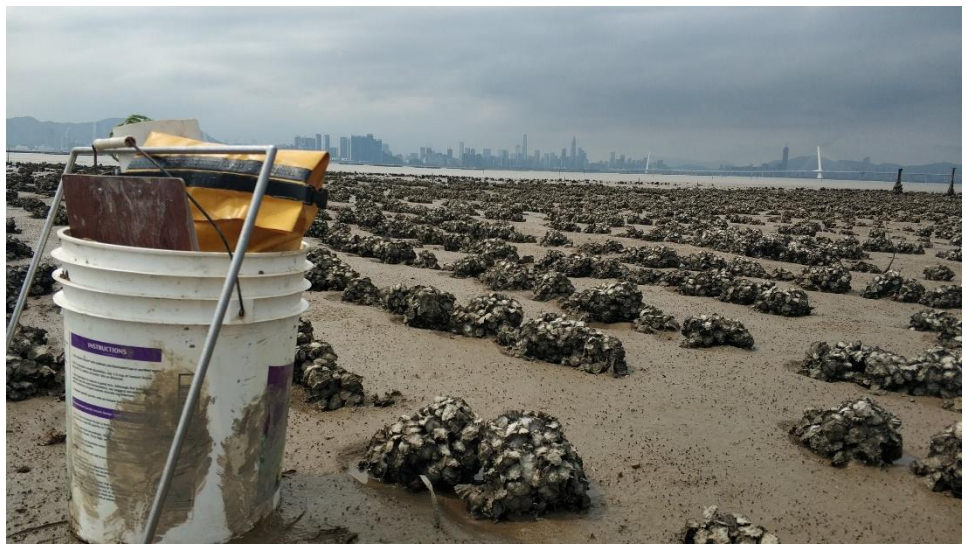
Public Seminar

INTEGRATED APPROACHES IN THE CONSERVATION OF FOUNDATION SPECIES IN HONG KONG'S INTERTIDAL MUDFLATS

Date: 8 Jan 2026 (Thu)

Time: 1000

Venue: KBSB 6N-11



About the speaker:

Khan Cheung is a PhD student under the supervision of Prof. Bayden Russell and Prof. Juan Diego Gaitán-Espitia. He has broad interest in a variety of research topics and mainly focuses on studying ecological dynamics using molecular biology techniques.

Abstract:

Biodiversity is the basis of healthy and functional ecosystems. Yet, we are experiencing a wave of extinction events, threatening many ecosystem functions that our society depends on. Foundation species are species that facilitates local biodiversity by modifying the physical state of their habitat and modulate the availability of resources to other inhabitants. By prioritizing the conservation of foundation species, restoration of degraded habitats could be performed in a much more effective manner.

In this seminar, I will present my studies on the spatial and temporal biodiversity dynamics in two intertidal mudflat habitats shaped by co-occurring foundation species: oyster habitats and seagrass meadows. By integrating field surveys and molecular biology techniques, my study shows the modulating effect of oysters on mudflat biodiversity and describes the diversity of oysters in HK's intertidal mudflats. Through thermal physiology experiments and population genetics studies, the temporal dynamics in local seagrass populations were investigated. These advancements in our knowledge on the biology and ecology of key foundation species in HK's mudflats will enable more effective conservation of tropical mudflat habitats.