



The University of Hong Kong
School of Biological Sciences

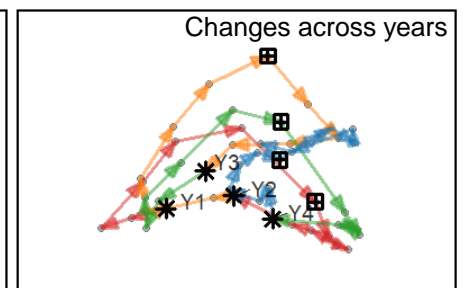
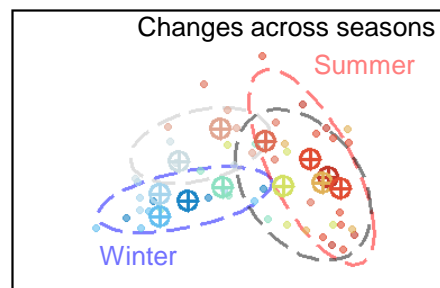
**Public
Seminar**

Spatio-temporal community dynamics of Hong Kong rocky shores

Date: 7 January 2026 (Wed)

Time: 14:30

Venue: 6N11



About the speaker:

Jackson Lau is a PhD student supervised by Prof. Gray A. Williams. He uses rocky shores as a model system to investigate how ecological communities vary across time and space.



Abstract:

Community ecology has been described as a “mess” because ecological communities vary naturally across multiple dimensions at different scales. Elucidating these complexities requires thorough documentation of local community dynamics at a variety of spatial and temporal scales. By applying diversity and time-series analyses on multiple community datasets, this thesis quantitatively described how community structures varied across rocky shores in Hong Kong, and how they changed over different timescales (months and years). One consistent and predictable pattern was that many species, including ecologically important foundation species, suffered summer decreases in abundance. Building on this information, the responses of two foundation species (an oyster and a mussel species) to the common threat of summer thermal stress was assessed. This was experimentally studied from the species (i.e. their thermal physiology) to the community level (i.e. how their mortalities influence their associated communities), revealing different cascading effects amongst the two foundation species. Combining these different aspects of complexities allowed the development of a multi-dimension (spatio-temporal) framework to understand intertidal community dynamics in the relatively understudied monsoonal tropics.