E&B Seminar Series

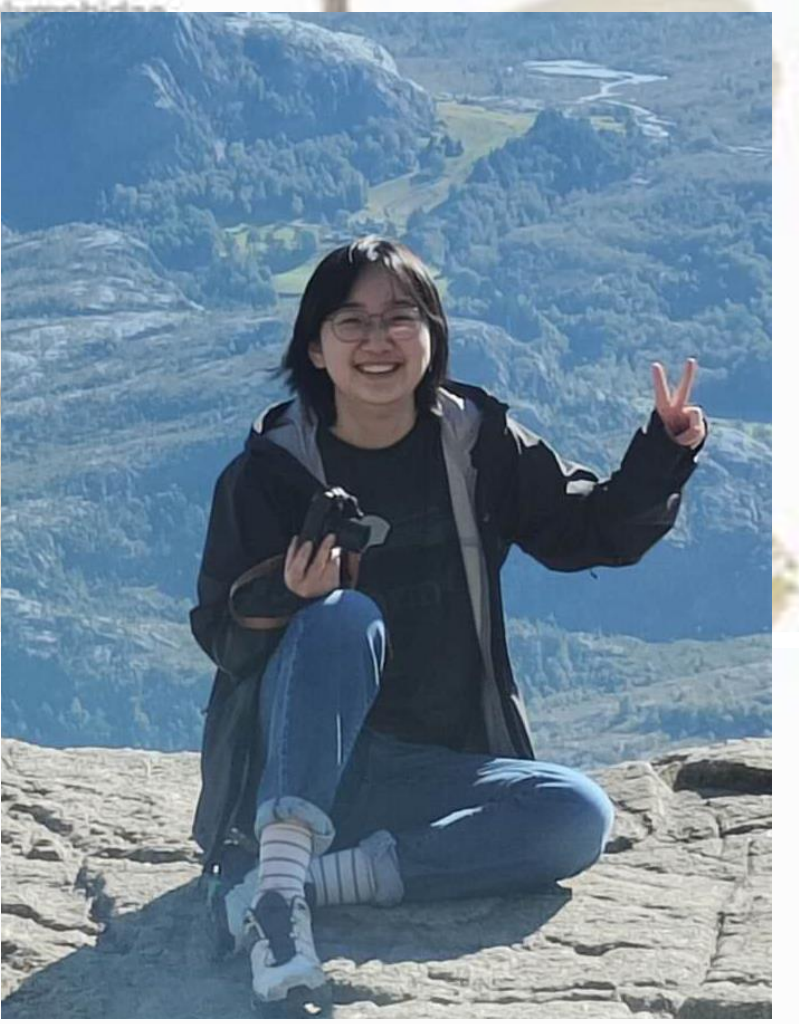
SCHOOL OF BIOLOGICAL SCIENCES THE UNIVERSITY OF HONG KONG 香港大學生物科學學院 SHKU Science

ECOLOGY & BIODIVERSITY

Analyzing the evolution of disparity and functional optimality of insect wing shapes using a theoretical morphospace approach

Date	**Mar 22nd (Fri.)**
Time	**16:00 (UTC+8)**
Venue	**Zoom**

The wing is the key evolutionary innovation of pterygote insects and wing morphology is commonly envisaged as finely attuned to functional performance. Herein, we use the theoretical morphospace methods to investigate how wings are adapted for flight and how varied factors constrain wing shape. This involves constructing a shape space that includes potential wing forms based on the collected empirical wing shapes. By mapping the biomechanical performance of theoretical morphospace, performance surfaces can be generated to explore the evolutionary trajectory of wing morphology under functional constraints.



About speaker:

Yuming Liu, a PhD student in palaeobiology at The University of Bristol, primarily focuses on establishing the theoretical morphospace for insects and analyzing the various evolutionary constraints on insect wing shape. She has also previously worked on taxonomic studies of Mesozoic Dipteran fossils.