



中央研究院生物多樣性研究中心

Biodiversity Research Center, Academia Sinica

biodiv@gate.sinica.edu.tw

02-2789-9621

# Using Thermal Performance to Understand Life-History Reorganization Under Environmental Change



**Dr. Min-Chen Wang**  
**王敏真 博士**

**Marie Skłodowska-Curie Postdoctoral Fellow**  
**Christian-Albrechts-University Kiel, Germany**

**Time: 2026. 06. 02 Tue. 15:00**

**Venue: Auditorium, 1st Floor**

**Interdisciplinary Research Building**

**跨領域科技研究大樓1樓演講廳**

**Host: Dr. Chien-Hsiang Lin 林千翔副研究員**



## Abstract

Climate-driven environmental change is reshaping physiological stability and life-history trajectories across ecosystems. This talk presents a conceptual framework linking energetic allocation, physiological organization, and life-history trajectories across biological scales. Biological functions respond asynchronously to environmental fluctuations, reflecting differences in sensitivity and buffering capacity across biological systems and life stages. Laboratory experiments, physiological assays, and ecological reconstructions are integrated using marine organisms as model systems. Asynchronous physiological responses may reveal stage-specific functional prioritization under environmental perturbation and help predict life-history reorganization under environmental change. This framework aims to connect physiological mechanisms with ecological forecasting. The ultimate goal is to identify general energetic rules underlying resilience, vulnerability, and future life-history trajectories under ongoing environmental change.