



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

Life Through the Lens of Energy Flow in Changing Environments



Dr. Min-Chen Wang
王敏真 博士

Postdoctoral Fellow

Christian-Albrechts-University Kiel, Germany

Time: 2025. 03. 26 Wed. 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. Tzu-Hao Lin 林子皓副研究員



Abstract

Energy, the essence of life, drives biological processes such as physiological homeostasis and locomotion, enabling animals to meet their daily requirements. An animal's preferred form of energy usage and storage, along with its capacity for energy transport, are critical endogenous factors in maintaining energy homeostasis and sustaining fitness in a changing environment. Furthermore, animals must continuously reallocate their limited energy budget across physiological systems to adapt to environmental changes and different life stages. Understanding the dynamics of energy flow in animals, as well as its relationship with physiological system changes, provides insights at both individual and ecosystem levels. It reveals an animal's energy requirement and priority in physiological systems under certain conditions; it also helps predict a species' impact on the flow of energy through the food web. In this talk, I will demonstrate how I apply energy dynamics to uncover animal survival strategies in changing environments and discuss potential future directions.