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Ancient Oceans to Modern Challenges: Fish Fossils as Windows into Marine Ecosystem Changes



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Time: 2024. 11. 14 Thu. 15:30

Venue: Auditorium, 1st Floor,

Interdisciplinary Research Building

跨領域科技研究大樓1樓演講廳

Host: Dr. Yin-Ru Chiang 江殷儒研究員



Abstract

I am a broadly trained marine paleontologist specializing in fish fossils, focusing on using fish otoliths for taxonomic and ecological studies. My research primarily centers on deep-time marine fossils to understand how environmental change and global events have shaped marine biodiversity over geological timescales. In this presentation, I will first demonstrate my research achievements over the past five years and then talk about plans for future initiatives. Key areas in my previous and current studies include: 1. Describe spatiotemporal patterns of biodiversity using marine fossils, with a particular focus on the subtropical-tropical West Pacific region. The documentation of these fossils enhances our knowledge of deep-time ecosystems, filling critical gaps in our understanding of the evolution of life in the Indo-West Pacific; 2. Establish baseline data and evaluate anthropogenic impact, assessing human and natural disturbances on fish communities. In this area, I focus on studying fossils from periods before significant human disturbances and aim to disentangle the natural variability of fish communities from anthropogenic impacts. This will provide critical information about the marine ecosystem resilience and adaptability of organisms. My plans for the future involve strengthening my current research programs and exploring new avenues incorporating advanced analytical techniques.