中央研究院生物多樣性研究中心
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Marine Biodiversity and Ecosystems

Marine Biodiversity Exploration, Conservation and Evolution of the Indo-West Pacific Fishes and other Organisms

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Time: 2021. 12. 06 Mon. 09:00

Venue: Auditorium, 1st Floor,
Interdisciplinary Research Building
跨領域科技研究大樓1樓演講廳

Host: Dr. Benny K. K. Chan 陳國勤研究員

~Attendee must wear mask~
~與會者請配戴口罩~

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Abstract

In the past decades, human disturbances have extensively altered oceanic communities that we rely on for food, transportation, and recreation, but such kind of the attention has not been fully paid, especially for the deep-sea ecosystems where there is a growing interest to exploit oil, mineral or biological resources. Continuing our wise use of the seas depends on a better understanding of the marine biodiversity, the evolution of marine organisms and the consequences of our intrusion on the workings of marine ecosystems. In this context, my current research is conducted to fill the gap of our knowledge of these regards by taking sampling strategy from two international cooperation programs that I'm participating, the *phylogeography and systematics of emperors and large-eye seabreams and other coral reef fishes* and the *Tropical Deep-Sea Benthos* (TDSB), and by the data analyses for the collected samples through an integrated approach in systematic biology. In today's talk, I'll firstly introduce the TDSB program that was launched in the early 1980s to explore the deep-sea benthos of the tropical Indo-West Pacific and the advanced results. The survey area is focused around the golden triangle of marine biodiversity in the South-Eastern Asia that extends to Taiwan in the North and to New Caledonia in the South. This region was firstly recognized as a hotspot of diversity for coral reef organisms. More recently it was shown that this gradient of diversity is also observed for deep-water coral species. The series of the TDSB expeditions have allowed the establishment of an impressive collection of tropical deep-sea animals that is studied thanks to an informal network of taxonomists. In second half of my talk, I'll show our empirical studies for the test of hypotheses that explain the marine biodiversity centered in the golden triangle and for the investigations of the underlying evolutionary mechanisms of species or genetic diversifications of the marine taxa occurring in the IWP. To end my talk, I will present how the emerging technologies and integrated approaches may help for today's research in marine biology and conservation.