Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2022-64
Project Title:	Environment and Conservation Fund - Nature-based greening solutions for insect pollinator conservation and sustainable agriculture development
Principal Investigator:	Dr Lee Ho, Roger, Science Unit, Lingnan University
Total Approved Grant:	$889,000
Duration:	1/8/2023 to 31/7/2026
Project Status/Remarks:	On-going
Project Scope:	Sustainable urban agriculture provides a wide range of benefits to people and biodiversity. It is dependent, however, on a rich community of pollinators which themselves rely on floral resources available within urban green spaces. From a pollinator's perspective, however, not all flowers are equally rewarding; in this context, selecting the right plant species is paramount, but often overlooked. Therefore, to advise nature-based greening strategy, establishing a baseline understanding of pollinator diversity and their floral preferences should be perceived as essential, with such information currently limited in Hong Kong. To fill this gap, this project will combine taxonomic and molecular approaches to establish the first urban baseline for six main insect pollinator groups (i.e. bees, wasps, flies, butterflies, diurnal moths, and beetles) in major types of urban green spaces. Their floral preferences will be investigated to prepare the first Hong Kong plant-insect catalogue that incorporates flower nectar supply as quantitative information to inform greening practices and support urban farming. In addition, through a 'Young Entomologist Scheme', selected university students will be involved in establishing museum specimen collection and DNA-barcode database for public education, research and monitoring programs. Ultimately, the project findings will provide ecological insights into nature-based greening solutions.
Summary of the Findings/ Outcomes:	To be available upon completion of the project