

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2022-113
Project Title:	Environment and Conservation Fund - Exploratory Study of the Impact of Artificial Light at Night on Birds at Mai Po Nature Reserve
Principal Investigator:	Dr Ng Chi Yung Stephen, Department of Physics, The University of Hong Kong
Total Approved Grant:	\$499,880
Duration:	1/7/2023 to 30/6/2025
Project Status/Remarks:	On-going
Project Scope:	<p>This research project aims to conduct an exploratory study on the impacts of artificial light at night (ALAN) at the Mai Po Nature Reserve, an internationally significant wetland that is home to a host of wildlife. This ecologically sensitive now faces a growing threat of light pollution from the intense urbanisation nearby. This project uses light sensors to measure the intensity of ALAN at Mai Po via measuring the night sky brightness (NSB) and installs monitoring cameras to identify sources of the light and their varying patterns. The project will also conduct the first comprehensive nocturnal survey of the usage by birds and their behaviour at Mai Po. These provide the basis for studying the impacts of light pollution on the nocturnal ecology and habitats. Results from this study also provide a baseline for future reference as developments in the Greater Bay Area and new towns in Hong Kong, including the Northern Metropolis, are actively planned and proceeding. The project also hopes to provide insights on possible directions and strategies for lighting usage to strive for dark sky preservation in ecologically important areas in Hong Kong.</p>
Summary of the Findings/ Outcomes:	To be available upon completion of the project