

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2022-122
Project Title:	Environment and Conservation Fund - Using eDNA metabarcoding to monitor the changes in fish communities after the deployment of artificial reefs in South Lantau Marine Park
Principal Investigator:	Dr Ip Chi Ho, Department of Biology, Hong Kong Baptist University (transferred to Lingnan University before project commence)
Total Approved Grant:	\$798,500
Duration:	1/1/2024 to 30/6/2026
Project Status/Remarks:	To be commenced
Project Scope:	Artificial reefs (ARs) will be deployed in the South Lantau Marine Park (SLMP) by the end-2023. To assess the effectiveness of the ARs to enhance the fish resources, the government will monitor the fish communities using conventional diving- and fishing-based methods. This project proposes environmental DNA (eDNA) metabarcoding as a complementary method to monitor the changes in fish and epibenthic invertebrate communities in this AR project. It will conduct eDNA surveys in the AR area and nearby natural reefs before and after the AR deployment, trace the spatial and temporal changes in fish and epibenthic communities and detect species that may not be often recorded by conventional survey methods. As the first project tracing the development of fish and epibenthic communities in an AR area in Hong Kong, this study will provide useful data for better use of AR as a fisheries management tool.
Summary of the Findings/ Outcomes:	To be available upon completion of the project