

Lantau Conservation Fund

Research Project

Project Number	RE-2024-14
Recipient Organisation	Lingnan University
Project Title	Arrival from the sea: assessing the role of larval supply on Lantau's rocky shore biodiversity through ecological research and citizen science
Project Description*	<p>Rocky shore biodiversity on Lantau shows strong spatial partitioning due to contrasting hydrological environments in the northern (estuarine) and southern (oceanic) coasts of the island. To better conserve this biodiversity, which is rich but receives less attention as compared to other coastal habitats (e.g. mangroves and seagrass beds), identifying drivers of species distribution is the key. Building upon previous knowledge of rocky shore species distribution on Lantau, we will investigate the "supply" of this biodiversity through quantifying planktonic larval flux, the primary way of how species settle on rocky shores. Specifically, larval traps will be deployed around Lantau to quantify the composition of potential species pool by sequencing planktons' RNA via metatranscriptomics. This species pool will be compared against on-shore species assemblages to evaluate the role of larval supply in shaping rocky shore biodiversity. Local communities and citizens will be engaged to help record on-shore species "in their backyards" during and beyond the project, through guided tours and an online protocol. As such, this project will integrate research and citizen science to investigate larval supply as a potential driver of biodiversity along Lantau's coasts, foster individuals as citizen scientists and, ultimately, build capacity to conserve the island's dominant coastal habitat.</p>
Project Period	24 months
Approved Grant	\$1,458,600

*The project description is provided by the project proponent