

Lantau Conservation Fund

Research Project

Project Number	RE-2024-10
Recipient Organisation	Lingnan University
Project Title	Assessing the Biodiversity and Genetic Structure of Macroinvertebrates in Lantau's Streams: Implications for Conservation
Project Description*	<p>Freshwater ecosystems are biodiversity hotspots with macroinvertebrates contributing to 80% of this diversity. However, this taxonomic group, despite its ecological and economic importance, remains relatively understudied and poorly documented, particularly in tropical regions. In Lantau, previous studies have indicated the potential for a diverse macroinvertebrate community, including unique species not found elsewhere in Hong Kong. Unfortunately, a comprehensive survey is lacking, resulting in incomplete knowledge about the status, distribution, and ecology of macroinvertebrates in the area.</p> <p>As such, we propose an island-wide stream survey to assess the biodiversity of freshwater macroinvertebrates in Lantau. Our objectives are threefold, and we aim to 1) establish ecological baselines and create a comprehensive species inventory of macroinvertebrates in Lantau's streams, 2) investigate how macroinvertebrate communities vary in response to seasons, longitudes, and human disturbances, and 3) assess the genetic diversity and structure of different macroinvertebrate species to gain insights into their connectivity among populations.</p>

	By accomplishing these objectives, we will generate crucial scientific data to inform decision-making processes related to freshwater biodiversity conservation and management in Lantau, particularly in light of future developments in the area. Our findings will enhance knowledge of macroinvertebrate ecology and provide a foundation for evidence-based conservation strategies.
Project Period	30 months
Approved Grant	\$1,539,100

*The project description is provided by the project proponent