

Lantau Conservation Fund

Research Project

Project Number	RE-2024-12
Recipient Organisation	Lingnan University
Project Title	Collecting baseline data on understudied bioindicators: using the diversity and abundance of lichens on Lantau Island to monitor air quality
Project Description*	<p>One of the most understudied group of organisms in Hong Kong are lichens; to date only five publications have documented their local diversity. None of these studies applied a comprehensive approach, likely missing species, and the most recent surveys were executed over 20 years ago. This project will conduct the first comprehensive, standardized survey of lichens in Hong Kong by focusing on a region with high potential for undiscovered diversity: Lantau Island. The vast majority of Lantau remains un-surveyed and there is a dire need to establish a robust baseline in order to assess and prioritize species and habitats of conservation concern.</p> <p>Lichens are also useful as rapid and inexpensive bioindicators of air pollution. Species vary in their susceptibility to pollutants that also negatively affect human health. The presence or absence of certain lichen species or communities can therefore indicate the local concentration of air pollution. This project will refine an existing lichen "zoning" system developed for Hong Kong in 1980 and develop both a technical standard operating procedure and a guide accessible to the general public for the use of lichens to estimate local air quality. This will result in a powerful tool for both experts and average people.</p>
Project Period	36 months
Approved Grant	\$2,113,068

*The project description is provided by the project proponent