

Project 1/2004 – Analysis on diversity of insect communities and indicator groups of various habitats in Hong Kong

Purpose

This paper seeks Members' advice in funding the captioned application for ECF made by the Wildlife Conservation Foundation Limited

Background

2. The funding requested by this project is \$1,572,400.00 which includes \$828,000.00 for staff cost of one Researcher and one Research Assistant; \$600,400.00 for purchase of equipment for collecting insects and field work, local transport and laboratory fee; and \$144,000.00 for miscellaneous items including insurance, stationery and film development. The project is expected to last for 3½ years.

3. The objective of the study is to enable better understanding of the present insect fauna, the identity situation of ecosystem and the health of their habitats, as well as to detect the present ecological environment of Hong Kong through insect indicator group for planning the correct proposal of ecological and environmental conservation in the future. The principal investigator (PI) proposed to carry out a comprehensive, scientific insect resource survey covering random collection of samples and specific site investigations. Fixed sampling plots will be set up depending on the homogeneity of land-use pattern and degree of habitat fragmentation by disturbance. Based on biological classification to investigate insect composition at family level, the characteristics and diversity of insects at the study sites will be studied, and a database will be built from the research results.

4. The proposal was examined by AFCD and two external expert assessors. While Assessor 1 supported the proposal, AFCD and Assessor 2 considered the proposal not worthy of support. AFCD considered the objective of the study not focused and the scale of study too large for the proposed manpower input. The proposal to identify species to family level is also not adequate for the stated purpose. For example, there are insect species which are very different in size, feeding habit, living requirement, life cycle, etc. but

they all belong to the same family. It is therefore better to have species-level information of a few carefully chosen groups than family-level information on all insects.

5. In respect of the assessment from the two external expert reviewers, Assessor 1 supported the proposal and considered the species list obtained by the project may contribute basic information for local biodiversity in Hong Kong and other tropical areas in Southeast Asia. Nevertheless, Assessor 1 considered that family level research and analysis is not enough to investigate the diversity of insect communities and indicator groups of various habitats in Hong Kong which is in-line with Assessor 2 and AFCD's comment. Assessor 2, however, considered the proposal not worthy of support and commented the project sketchy in detail especially so with respect to obtaining statistically valid samples. Assessor 2 also expressed concern in the use of family level data in the analysis and pointed out that any analysis must be done at the species or morphospecies level.

Advice sought

6. Members are invited to advise whether the application for ECF should be supported with an approved grant of \$1,572,400.00 as detailed in paragraphs 2 to 3 above.

Secretariat, ECF Research Projects Vetting Subcommittee
January 2005