

**Project 3/2005 – Species identification, ecology and biological control of
apple snails in Hong Kong**

Purpose

This paper seeks Members' advice on funding the captioned application for ECF submitted by the Hong Kong Baptist University.

Background

2. The funding requested by this project is \$434,280.00 for the staff cost of employing Research Assistants and undergraduate helpers (\$371,280.00), and other general expenses on chemicals and consumables, field trips and organizing conferences and publications (\$63,000.00). The project is expected to last for 24 months.

3. This project aims to:

- (i) conduct an up-to-date and comprehensive survey of apple snails to determine the number of species present in Hong Kong, their distribution and environmental characteristics;
- (ii) study the population dynamics of apple snails in different types of habitats;
- (iii) determine their preference for local vegetables and natural hydrophytes, and the association between food preference and feeding rate, growth and reproduction;
- (iv) assess the effects of apple snails on other freshwater gastropods; and
- (v) explore the use of a biological method in apple snail control.

4. The proposal has been examined by the AFCD and two overseas expert assessors. AFCD considers the project worthy of support as it will provide more information of the invasive apple snails in Hong Kong.

5. Two external expert assessors have also been invited to comment on the proposal and both of them support the proposal. Assessor 1 considers that there is a need for a repeated survey of apple snails in Hong Kong as the last study was conducted in 1988, and to determine if the species' range and therefore impact is either increasing or decreasing. He points out that, though

the project may not have highly beneficial deliverables to the welfare of farmers, there is a demonstrated need for the study in terms of (a), the use of the apple snail in the confined territory of Hong Kong as a model for predicting the fates of biological invasions; (b), the assessment of the species' wider impacts beyond vegetable plots (e.g. wetlands) and hence (c), the species' potential for ecological impacts upon other habitats. Assessor 2 considers that the project is very worthwhile from the perspective of gaining greater knowledge of these invasive snails in Hong Kong where they cause serious damage to wetland crops. The project will provide basic understanding of apple snail ecology in Hong Kong.

Advice sought

6. Members are invited to advise whether the application for ECF should be supported as detailed in paragraphs 2 to 3 above and if supported, the exact amount of fund to be approved.

Secretariat, ECF Research Projects Vetting Subcommittee
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