



Ho Koon Nature Education  
cum Astronomical Centre  
(Sponsored by Sik Sik Yuen)

## Certificate Level Biology Field Study Course Conservation and Development - the case of Fung Yuen

**Date of survey:** \_\_\_\_\_ **Group:** \_\_\_\_\_

**Members:** \_\_\_\_\_

**Locations:** 1. Ho Koon Nature Education cum Astronomical Centre  
2. Fung Yuen, Tai Po

**Time allocation:**

|               |                                        |
|---------------|----------------------------------------|
| 9:00 - 10:00  | Introduction                           |
| 10:00 - 12:30 | Field Work                             |
| 12:30 - 13:30 | Lunch                                  |
| 13:30 - 15:30 | Data analysis and prepare presentation |
| 15:30 - 16:15 | Group presentation                     |
| 16:15 - 16:30 | Summary                                |

**Objectives:**

After the field study course, students should be able to:

**Knowledge**

1. Identify different habitat types commonly found in Hong Kong.
2. Appreciate the existence of various life forms
3. Understand the need for conservation.
4. Recognize measures to preserve biodiversity.
5. Aware of the economic, ecological, aesthetic and moral issues related to conservation.

**Skills**

6. Make careful observations and accurate records.
7. Ask relevant questions, identify problems and formulate hypotheses for investigations.
8. Analyze ways in which technological advancement have influenced the environment.
9. Summarize data and give a brief presentation
10. Understand and extract useful information from a map

**Values and Attitudes**

11. Recognize one's responsibility for conserving, protecting and maintaining the quality of the environment.

**Material required:**

|   |                                               |                          |                          |
|---|-----------------------------------------------|--------------------------|--------------------------|
| 1 | Common Butterflies of Fung Yuen (Photo Guide) | <input type="checkbox"/> | <input type="checkbox"/> |
| 2 | Common Plants of Fung Yuen (Photo Guide)      | <input type="checkbox"/> | <input type="checkbox"/> |
| 3 | Map of Fung Yuen                              | <input type="checkbox"/> | <input type="checkbox"/> |

### Introduction

This project is to study a local conservation area - Fung Yuen Site of Special Scientific Interest and formulate a management plan.

## Background

Fung Yuen Village was established about 300 years ago. Inhabitants made their living by agriculture. Most farmland was left abandoned as the economy change rapidly in 70's and 80's. In 1980, the Government designated the valley behind the village as Site of Special Science Interest(SSSI) in order to protect rare plants and rare butterflies. 39.3 hectare of the site is Government land and 3.4 hectare is private land. Under the New Nature Conservation Policy, Fung Yuen was ranked no.4 on the list of priority sites for enhanced conservation. About 170 out of 240 known butterfly species of Hong Kong have been recorded in Fung Yuen. Abandoned farmland in the village was bought by developer and 12 blocks of 17-28 storey residential buildings will be erected in the village. In 2004, Tai Po Environmental Association set up Fung Yuen Butterfly Reserve Fung Yuen Culture & Education Centre. In 2005, the programme was financially supported by Environmental Conservation Fund.

### A. Habitat mapping

Identify different habitat types (listed below) in the study area, estimate their approximate size and prepare a habitat map. Also evaluation the importance of individual habitats found in the study.

- a. Grassland - Land covered with grass and low scrub generally under 0.3 m in height.
- b. Scrubland - Land with fairly continuous cover of shrubs and bushes 0.3 m to 2.9 m in height.
- c. Woodland - Land with continuous cover of shrubs and trees over 2.4m in height, with interlocking canopies.
- d. Freshwater stream
- e. Farmland
- f. Abandoned farmland

Habitat characters of different habitats.

|                      | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------|---|---|---|---|---|---|
| Habitat type         |   |   |   |   |   |   |
| Size / length        |   |   |   |   |   |   |
| Richness of wildlife |   |   |   |   |   |   |
| Re-creatability      |   |   |   |   |   |   |
| Potential value      |   |   |   |   |   |   |

### B. Evaluation of human impacts

After careful observation of the area and review of the site map. Identify possible human impact (existing and projected) to the environment and the sources of the impact. Estimate the degree of each impact - minor, moderate or severe. Evaluate the effects of each impact - habitat loss, habitat degradation, species diversity decrease, endangered species threatened.

#### 1. Hill fire

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

#### 2. Cultivation activities

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

### **3. Trampling on vegetation**

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

### **4. Littering and dumping**

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

### **5. Removal of vegetation**

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

### **6. Introduction of exotic species**

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

### **7. Spray of chemicals**

Sources : \_\_\_\_\_

Degree of impact : \_\_\_\_\_

Effects of impact : \_\_\_\_\_

## **C. Other considerations**

Ecological consideration should not be the only factor affecting the formulation of a management plan. There are other considerations which may have positive or negative effects on the site. Briefing describe how important is each consideration in the case of Fung Yuen.

### **1. Demand of the villagers**

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**2. Demand of the butterfly photographers and other visitors**

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**3. Aesthetic and moral considerations**

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**4. Demand for more residential buildings**

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**5. Urbanization and population growth in Fung Yuen**

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**Management plan**

Draft a management plan for sustainable development of Fung Yuen SSSI. The plan should consist of the following components:

- a. Management goals
- b. Facilities
- c. Activities
- d. Restrictions and regulations