



齋色園主辦  
可觀自然教育中心暨天文館  
Ho Koon Nature Education cum Astronomical Centre  
(Sponsored by Sik Sik Yuen)

## Biology Field Study Course Butterfly Survey

Name : \_\_\_\_\_ Group : \_\_\_\_\_ Date : \_\_\_\_\_

### Schedule :

9:00 - 10:00	Briefing
10:20 - 12:15	Field work
12:30 - 13:30	Lunch
13:30 - 14:30	Data analysis
14:30 - 15:00	Prepare presentation
15:00 - 16:20	Presentation & summary

### Aims :

After the course, students should be able to :

1. Identify some common local butterfly species and classify them,
2. demonstrate basic skills of observing nature,
3. point out the abiotic factors and biotic factors affecting butterflies,
4. describe some adaptation features of butterflies,
- 5.. construct a simple dichotomous key,
- 6.. organize and analyze data
- 7.. Appreciate the nature and respect lives.

### Tools and reference material :

1. Common butterflies of Shing Mun Reservoir
2. Hong Kong Butterflies 200 (Indoor use)
3. Common nectar plants and larval host plants of Shing Mun Reservoir
4. Digital thermohygrometer
5. Light meter
6. Anemometer
7. Compass
8. Nylon thread

## Field work

### A. Habitat

Identify different habitat types in the sites and estimate percentage of area occupied by each. Below are some habitat types commonly found in Hong Kong:

1. Grassland - Land covered with grass and low scrub generally under 0.3 m in height.
2. Scrubland – Land with fairly continuous cover of shrubs and bushes 0.3 m to 2.9 m in height.
3. Natural woodland – Land with continuous cover of native shrubs and trees over 2.4 m in height.
4. Plantation woodland – Land with continuous cover of introduced trees.
5. Abandoned farmland – Often contains damaged irrigation facilities.
6. Freshwater stream

#### Site 1

Habitat type						
Approx. area %						

#### Site 2

Habitat type						
Approx. area %						

## B. Abiotic factors

Weather conditions of the days before field study :

---

Weather conditions during field study :

---

	Air temp. by Hong Kong Observatory	General weather condition	Site air temperature	Site light intensity	Site wind speed and direction	Site humidity
Site 1						
Site 2						

## C. Nectar plants for adult butterflies

Record the nectar plants in blossom in the sites

Site 1	Plant							
	Quantity							
Site 2	Plant							
	Quantity							

## D. Butterfly larval host plants

Record the larval host plants in the site. Check for the presence of butterfly immature stage(s) on them.

Site 1	Plant							
	Quantity							
	Immature stage(s)							
Site 2	Plant							
	Quantity							
	Immature stage(s)							

### E. Butterfly species and behaviour

Record the butterfly species found in the sites, also note their behaviour.

	Butterfly name	Site	Feeding	Resting	Flying	Wandering	Pursuing	Courting	Mating	Egg laying
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

## Data analysis :

1. Compare the butterfly diversity in the two sites, explain the difference by analyzing abiotic factors and biotic factors of the two sites,.

2. Use the recorded butterfly data, give examples to explain how do the butterflies adapt to the environment, e.g. warning colour, cryptic colour, mimicry.

3. Use 8 or more recorded butterfly species, construct a dichotomous key.

~ End ~