

**Curriculum-based Outdoor Learning Programmes
in Country Parks**

**Tai Lam Ecological Garden
Species Identification Guide**

A Brief Guide to Butterfly Behaviour

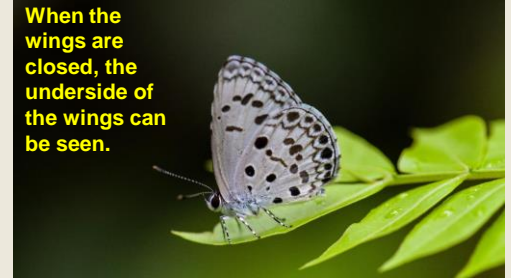


Feeding

When butterflies grow from larvae to adults, their mouthparts change from chewing mouthparts for biting leaves to siphoning mouthparts for siphoning liquid like nectar. Nectar is produced by the nectaries in flowers and is the primary food for a majority of butterflies. When a butterfly eats, it inserts its extended proboscis (like a straw) from its mouthparts deep into the flowers and sip the nectar. When you see a butterfly flying around or stay on a flower, pay attention to its proboscis will help you to determine whether it is feeding on the nectar or not.

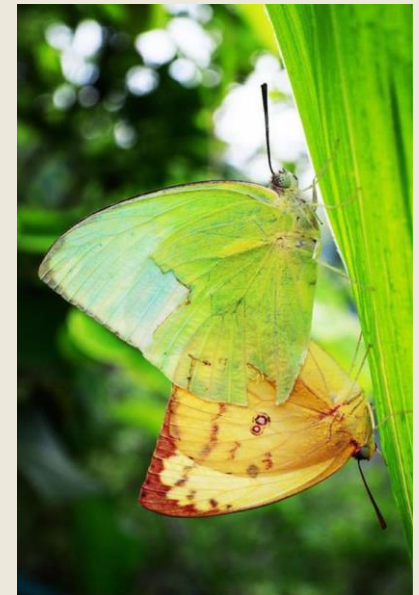
Resting

Although butterflies usually active during the day, they may rest to conserve energy when the day is cool or cloudy. When butterflies rest, their wings are closed or held flat and the patterns on the underside (or upper side) of their wings can be seen.



Mating

Before mating, butterflies often dance around together in the sky and end up with joining together end to end at their abdomens. For example, when you see a pair of butterflies on a leaf, you can check whether their abdomens are attached to judge if they are mating.



Butterflies

★ : common at the field site



統帥青鳳蝶 Tailed Jay
Graphium agamemnon



The brown wings are covered with fine green spots.



青鳳蝶 Common Bluebottle
Graphium sarpedon

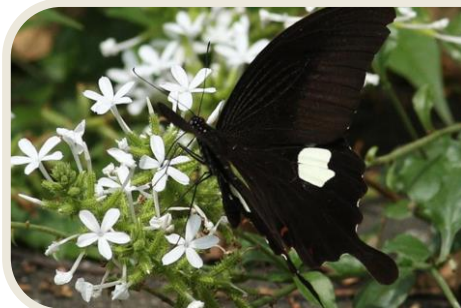
It has green-dish blue bands on its wings.



玉帶鳳蝶 Common Mormon
Papilio polytes



It has black wings. Horizontal milky stripes can be seen from the hindwings.



玉斑鳳蝶 Red Helen
Papilio helenus



It has obvious white markings on its hindwings and crescent-shaped red markings on the margin of its hindwings.

Tips for Observation

Since some butterflies are fast-flying, it is hard to catch them by naked eyes, so be patient and wait until they rest or eat.



美鳳蝶 Great Mormon
Papilio memnon



The males have black wings with no wing tails and red spots near the thorax. The females are diverse in appearance and often have large white patches on the hindwings.



巴黎翠鳳蝶 Paris Peacock
Papilio paris



Small green dots can be seen from its black wings when reflected by the sun. There are two large blue markings near the wing tails.



藍鳳蝶 Spangle
Papilio protenor



No wing tails and wings are slender. There are only few crescent-shaped red markings on the margin of its hindwings.



裳鳳蝶 Common Birdwing
Troides helena

Red marks can be found from the heads and thoraxes. It has black wings with yellow markings on the hindwings.

Butterflies (cont'd)



金斑蝶 Plain Tiger
Danaus chrysippus



Its wings are orange with black and white markings near the apex parts.



絹斑蝶 Glassy Tiger
Parantica aglea



The black-brown wings are covered with irregular sizes of white stripes.



虎斑蝶 Common Tiger
Danaus genutia



Its wings are reddish orange and the black wing veins resemble the patterns of a tiger.



報喜斑粉蝶 Red-base Jezebel
Delias pasithoe



Wings are composed of four colours of black, white, red and yellow. It is one of the most observable butterflies because its flying speed is not fast.



藍點紫斑蝶 Blue-Spotted Crow
Euploea midamus



Its black-brown wings appear shiny purplish blue under sunlight. There are two rows of small white dots on the edge of the hindwings.



槩黃粉蝶 Three-spot Grass Yellow
Eurema blanda



Most body parts are yellow, and there are small brown spots on its wings.



擬旖斑蝶 Ceylon Blue Glassy Tiger
Ideopsis similis



Many blue marks can be found on its dark brown wings.



蛇目褐蛺蝶 Plum Judy
Abisara echerius



There are eyespots on the edges of its dark brown wings.

Butterflies (cont'd)



鈕灰蝶 **Common Hedge Blue**
Acytolepis puspa

Underside of its wings are pale grey with black spots. The males have wings with upperside metallic blue in colour.





沾邊裙弄蝶 **Water Snow Flat**
Tagiades litigiosus

Its hindwings near the end of the abdomen are white with black spots.




Host Plants and Nectar Plants Alongside the Trail



The table below summarizes some of the host and nectar plants planted alongside the trail in Tai Lam Ecological Garden (as improvements to Tai Lam Ecological Garden are carried out throughout the year, the plant species at the site may change over time).

Interpretive signs are installed for most of these plants. The plants are sorted by the distance from the entrance, the first one is closest to the entrance:

Name	Photo for reference	Information	Host plant	Nectar plant
<p> 赧桐 Pagoda Flower <i>Clerodendrum japonicum</i> </p> <p> Flowering Period: May – Nov Fruiting Period: May – Nov </p>		<p>The large heart-shaped leaves and eye-catching red flowers are its signatures. It provides nectar for butterflies when it blooms.</p>		<p style="text-align: center;">✓</p>
<p> 馬利筋 Blood-flower <i>Asclepias curassavica</i> </p> <p> Flowering Period: Jan – Dec Fruiting Period: N/A </p>		<p>It is a host plants for some butterfly larvae, such as some danaiids. Its flowers also provide nectar for butterflies.</p>	<p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p>

- Information on fruiting and flowering periods refer to the website of Hong Kong Herbarium: <https://www.herbarium.gov.hk/en/home/index.html>
- As some plants are poisonous, touching them may lead to allergy or poisoning. Therefore, you should only observe them at a distance and not touch them.

<p>吊裙草 Retuse-leaved crotalaria <i>Crotalaria retusa</i></p> <p>Flowering Period: Jan – Dec Fruiting Period: Jan – Dec</p>		<p>In addition to being a host plant for some butterfly larvae, danaiids also sip the alkaloid in its body to make pheromones for courtship.</p>	<p>✓</p>	<p>✓</p>
<p>龍船花 Chinese ixora <i>Ixora chinensis</i></p> <p>Flowering Period: Jul – Nov Fruiting Period: N/A</p>		<p>It is a very common ornamental plants in Hong Kong because of its eye-catching flowers and it is attractive to butterflies when it blooms.</p>		<p>✓</p>
<p>假馬鞭 Jamaica vervain <i>Stachytarpheta jamaicensis</i></p> <p>Flowering Period: Aug – Aug Fruiting Period: Sep – Oct</p>		<p>It provides nectar to butterflies when it blooms purplish blue flowers.</p>		<p>✓</p>

<p>野牡丹 Common melastoma <i>Melastoma malabathricum</i></p> <p>Flowering Period: Feb – May Fruiting Period: Aug – Dec</p>		<p>It is a source of nectar for butterflies when it blooms purple flowers with five big petals.</p>		<p>✓</p>
<p>可愛花 Blue Eranthemum <i>Eranthemum pulchellum</i></p> <p>Flowering Period: Oct – Feb Fruiting Period: N/A</p>		<p>It provides nectar to butterflies when it blooms purplish blue flowers.</p>	<p>✓</p>	<p>✓</p>

Dragonflies & Damselflies

★ : common at the field site



藍額疏脈蜻 Blue Dasher
Brachydiplax flavovittata

The body is mainly composed of blue, yellow and black colours. In contrast to the blue former half of the abdomen, the latter half is black.



華麗寬腹蜻 Forest Chaser ★
Lyriothemis elegantissima

There are black stripes on its thorax and abdomen. Its thorax is yellow, and the upper side of its wide abdomen is red (yellow for female).



網脈蜻 Russet Percher ★
Neurothemis fulvia

Large area of its wings yellowish brown (or red for male) is one of its signatures.



華麗灰蜻 Red-faced Skimmer ★
Orthetrum chrysis

The thorax is brown, and the abdomen is red.

Tips for observation

Despite the high flight speed, some dragonflies like emergent or waterside plants to perch, so you can wait until they stay on plants and then observe them.



黑尾灰蜻 Common Blue Skimmer
Orthetrum glaucum

The colour of the male's body is pruinose pale blue and abdomen is black at the end. The female's body is yellowish brown.



玉帶蜻 Pied Skimmer ★
Pseudothemis zonata

There are black spots on wingbases. The first half (near the thorax) and second half (near the end of the abdomen) of its abdomen are white and black, respectively.



曉褐蜻 Crimson Dropwing ★
Tritthemis aurora

Small dragonfly. The thorax and abdomen of the male are mainly purplish red, and there are reddish brown spots on wingbases. The female has a brown body.



黑紋偉蜓 Blue-spotted Emperor
Anax nigrofasciatus nigrofasciatus

The thorax is green, and there are dot-like spots on the abdomen.

Dragonflies & Damselflies (cont'd)

★ : common at the field site



白尾野蟪 Chinese Yellowface
Agriomorpha fusca



Frons is orange. The black body contrasts sharply with the white end of the abdomen.



翠胸黃蟪 Orange-tailed Sprite
Ceriagrion auranticum ryukyuanum



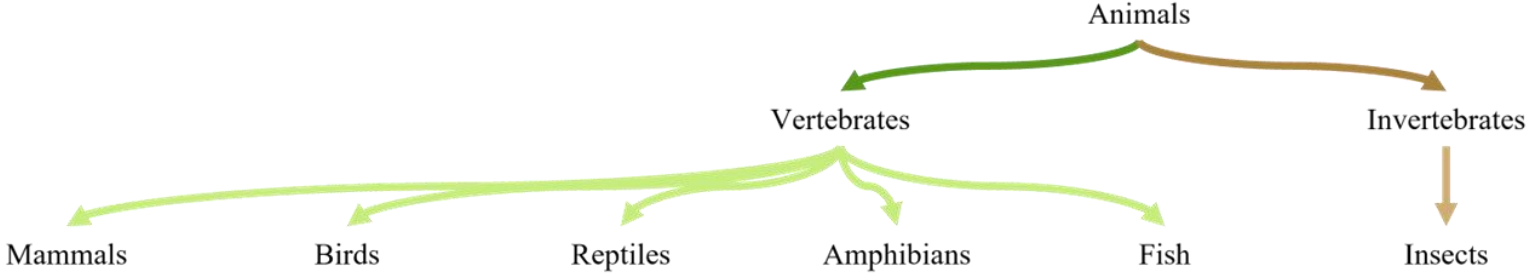
A damselfly with large body size. The thorax and abdomen are olive and orange, respectively.



毛狹扇蟪 Black-kneed Featherlegs
Pseudocopteryx ciliata

The thorax is black with neat white stripes.
The abdomen is white at the end.

Supplementary - Classification of Animals



Highlighted in red: critical features that separate the animal group from others

Characteristics	Skin	<ul style="list-style-type: none"> • Covered with hair 	<ul style="list-style-type: none"> • Covered with feathers • Feet are covered with scaled skin 	<ul style="list-style-type: none"> • Dry, scaly skin 	<ul style="list-style-type: none"> • Moist, smooth skin 	<ul style="list-style-type: none"> • Covered with wet scales 	<ul style="list-style-type: none"> • Covered with exoskeleton
	Respiration	<ul style="list-style-type: none"> • Lung breathing 	<ul style="list-style-type: none"> • Lung breathing 	<ul style="list-style-type: none"> • Lung breathing 	<ul style="list-style-type: none"> • Tadpoles: gill breathing • Adults: lung and skin breathing 	<ul style="list-style-type: none"> • Gill breathing 	<ul style="list-style-type: none"> • Tracheal system
	Body temperature	<ul style="list-style-type: none"> • Warm-bloodedness 	<ul style="list-style-type: none"> • Warm-bloodedness 	<ul style="list-style-type: none"> • Cold-bloodedness 	<ul style="list-style-type: none"> • Cold-bloodedness 	<ul style="list-style-type: none"> • Cold-bloodedness 	<ul style="list-style-type: none"> • Cold-bloodedness
	Reproduction	<ul style="list-style-type: none"> • Viviparous 	<ul style="list-style-type: none"> • Oviparous 	<ul style="list-style-type: none"> • Oviparous 	<ul style="list-style-type: none"> • Oviparous 	<ul style="list-style-type: none"> • Oviparous 	<ul style="list-style-type: none"> • Oviparous
	Other unique features	<ul style="list-style-type: none"> • Have mammary glands 	<ul style="list-style-type: none"> • Have beaks and wings 			<ul style="list-style-type: none"> • Have fins for swimming 	<ul style="list-style-type: none"> • Have 3 body parts (head, thorax, abdomen), 3 pairs of legs, and 2 pairs of wings

