



曾被驚嘆為福爾摩沙的美麗台灣,擁有蝴蝶王國的美譽,雖是蕞爾小島,卻有著近400種的蝴蝶物種優游其中。在台灣,不必遠渡重洋或深入山林,就能隨處欣賞到蝴蝶漫天飛舞的迷人身影,翩然炫麗的絕妙舞姿,更曾是帶動台灣生命力的一大奇蹟。

Taiwan was once called "Formosa", and it has a reputation as a kingdom of butterflies. On this relatively small island, there are nearly 400 species of butterflies. It is fortunate that locals can enjoy the beauty of the butterfly world without traveling far, and the charm of butterflies used to make a contribution to Taiwan's economy.



陽明山山區正在吸食澤蘭的青斑蝶,即便遊客行走其間也能與之和平共處。(陳建志 提供) The *Parantica sita niphonica* are feeding on *Eupatorium shimadai Hay* on Mt. Yangming. (by Chienchih Chen)

處歐亞大陸板塊與菲律賓板塊間的 台灣,有著令人嘖嘖稱奇的特殊地 形、氣候與資源,因而孕育豐富的植物、生物等多樣化的自然生態,環境包容性極強, 足以吸引來自大陸系統與海洋系統的蝴蝶 物種,對照小島嶼的單位面積而言,蝴蝶的 數量著實驚人。 aiwan is an island located between the Eurasian Plate and the Philippine Plate, and it boasts lush vegetation and biodiversity, with varied landscapes, climates, and natural resources. Despite Taiwan's relatively small size, its diverse environment attracts an amazingly large variety and population of butterflies.



光復後,台灣的蝴蝶加工業逐漸蓬勃,隨 著蝴蝶標本等工藝品的大量外銷,讓台灣知 名度大增,奠定「蝴蝶王國」的名號。不過, 隨著生態保育的觀念日臻完善,這種以經濟 利益為考量的不當舉動,已不復留存;現今 台灣轉為致力於復育蝴蝶棲地與廊道,讓蝴 蝶得以生生不息。

想要進入蝴蝶的世界,最快的方式,其實可以選擇造訪國家公園。台北市立教育大學環境教育與資源研究所副教授陳建志認為,若選對時間點,還能遇到國家公園內的「蝴蝶大發生」時期,當成群的美麗蝴蝶飛舞在山河中,煞是壯觀。

### 陽明山國家公園 青斑蝶

青斑蝶的翅膀上呈現半透明青色狀,雄性青斑蝶的後翅腹面則有黑色性斑,辨識度高。青斑蝶是陽明山國家公園的常客,喜愛停留在大屯山區的澤蘭花叢間,尤其每年5到6月間上山遊歷,更有機會目睹10萬隻以上的青斑蝶飛舞天際,堪稱世界級奇景。

Taiwan use to harvest large quantities of butterflies, exporting specimens, and gaining a reputation as a kingdom of butterflies. As the concepts of conservation became widely spread, this kind of economically driven industry vanished. Instead, Taiwan is now focusing on establishing ecological corridors of butterfly habitats.

Chien-chih Chen, associate professor of Graduate Program of Environmental Education & Resources at Taipei Municipal University of Education states that national parks are the most accessible entrance to the beauty of the butterfly world. With the right timing, clouds of exquisite butterflies appear in enormous fluttering swarms in the park, creating a miraculous natural wonder.

# Yangmingshan National Park *Parantica sita niphonica*

The milkweed butterfly (*Parantica sita niphonica*) has a distinguishing feature of semi-transparent green color on their wings. The major distinction between males and females is black spots on the back side the hind wings of males. They are frequent visitors in Yangmingshan National Park, especially in the area around *Eupatorium shimadai Hay* in Mt. Datun. From May to June, more than 100,000 butterflies gather in vast formations, filling the sky with awesome waves of fluttering colour.



陳建志認為大多數環境遭到破壞,是起因於人類對生物多樣 性的無知。

Chien-chih Chen thinks a lot of ecological damage is done because people lack knowledge of biodiversity.

#### 右圖 Right:

青斑蝶的黑褐色翅上有淡青色 斑紋,偏好菊科的蜜源植物。 (林柏昌 攝)

The Parantica sita niphonica has semi-transparent green color on their black wings. They prefer Compositae as their nectar resource. (by Bochang Lin)





陽明山青斑蝶的大發生時期,已成為生態 觀察者亟待探索的問題,畢竟一個國家公園 生態環境的承載量有限,雖然有人推測青斑 蝶是由外地遷入,但陳建志由蝶類翅片的完 整與新鮮度,推論這批龐大的青斑蝶應是在 山區自行繁衍,當陽明山繁殖量過多時,多數 青斑蝶族群就會選擇往其他棲息環境擴散, 可能有的散布到台灣中南部中高海拔地區, 或順著西南氣流散布到日本。

## 雪霸國家公園 寬尾鳳蝶

現瀕臨絕種的寬尾鳳蝶成蟲,主要於春、夏季出現,多分布在中、北部中海拔山區,且因體形較大,下翅中央有明顯的白色斑紋,尾凸有2條翅脈經過,色彩繽紛絢爛,能在太魯閣、玉山南部等地尋得蹤跡。由於寬尾鳳蝶幼蟲的寄主植物為台灣檫樹,所以設有台灣檫樹生態保育區的雪霸國家公園為最大宗的棲息地,每年5到8月最常翩然現身。



The big occurrence of milkweed butterfly in Yangmingshan National Park has became an interesting issue for entomologists. As the ecological capacity of the national park is limited, some scholars assume the swarms of milkweed butterfly must originate elsewhere. After examining the freshness and fullness of sample butterflies, Chen infers they were are in the park, and when their population reaches environmental limits, they disperse to other habitats, such as medium to high altitude mountain areas in central and southern Taiwan. Some even follow the northwest winds to Japan.

# Shei-Pa National Park *Agehana maraho*

The broad-tailed swallowtail butterfly (Agehana maraho) is a nearly extinct species. Adults emerge between spring and summer and are usually seen in mid-altitude mountains from northern to central Taiwan, such as Taroko and southern Yushan. Their features include a relatively large size, hind wings which bear a large, white spot in the central discals, as well as two extraordinarily colourful veins running through the tail. As Taiwan Sassafras (Sassafras randaiensis) trees are host to the caterpillars of broadtailed swallowtail butterfly, therefore the Taiwan Sassafras conservational area in Shei-Pa National Park is their biggest habitat, with the best watching period occurring from May to August.



寬尾鳳蝶能展翅約9到10公分,前翅底色為黑褐色、外緣有一排紅色弦月紋,屬大型鳳蝶。 (陳建志 提供)

With spread wings, the Agehana maraho can reach 9-10cm. Their front wings have a linear pattern of crescent moons along the outer margins of the black background. (by Chien-chih Chen)

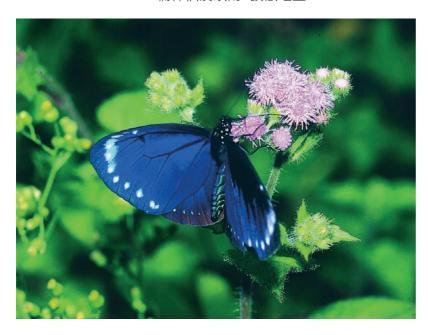


特別的是,寬尾鳳蝶屬於冰河時期擴散到台灣的物種,原本族群生活於中國大陸山區,但因冰河時期海平面驟跌,高海拔受到壓迫、溫度下降,台灣與中國大陸東南方相連,讓蝴蝶跟著飛抵台灣;而當冰間期海平面上升,台灣與大陸分隔時,飛不回大陸的寬尾鳳蝶便往較涼爽的台灣高山移動,無法再與大陸族群繁殖,演化成台灣獨立的種群,被視為台灣國寶。

### 玉山國家公園 紫斑蝶

紫斑蝶的翅膀表面經光線照射後,會呈 現醒目的紫色光澤,共有圓翅紫斑蝶、斯氏 紫斑蝶、端紫斑蝶與小紫斑蝶4種,一般皆 統稱為紫斑蝶。常見於台灣南部的紫斑蝶, 在台灣與東南亞的分布都極為廣泛,一年 四季都很活躍。

不過,生長在中低海拔的紫斑蝶,近年來竟也現身於高海拔山區的玉山塔塔加鞍部,經過調查判斷,每年5到9月是最適合在玉山欣賞紫斑蝶生態的時機,因為屬於平地的紫斑蝶,部分族群從9月開始,可能會隨冬北季風氣流,從東埔方向穩定的向上攀過高海拔玉山塔塔加鞍部,再往南飛赴楠梓仙溪以南,擴散地盤。



Additionally, broad-tailed swallowtail butterfly origin and habitat can traced back to the glacial epoch in China's mountain areas. As the sea level suddenly fell and the temperature dropped in high-altitude mountains, the broad-tailed swallowtail butterfly migrated to Taiwan through the point where the island was once connected with southeast mainland China. Later, when the sea level rose again, and Taiwan was geographically separated from the mainland, the remaining broad-tailed swallowtail butterfly moved to cooler mountain elevations, and evolved into an endemic specie. They are now treated as a national treasure of Taiwan.

### Yushan National Park Euploea

The most distinguishing characteristic of *Euploea* is the stunning purple color of their wings. There are four species, including *Euploea eunice hobsoni, Euploea sylvester swinhoei, Euploea mulciber barsine* and *Euploea tulliolus koxinga*. They are active all year round, and commonly seen in southern Taiwan and Southeast Asia.

The *Euploea* is usually seen at low to medium elevations. However, in recent years, they have also been found in Tataka Saddle in Yushan National Park. May to September is the best time to see them. After September, some groups follow the Northeast Winter Monsoon, traveling from lower Dongpu up to Tataka Saddle, and then turning south towards Nanzisien River or extending further south.



## 墾丁國家公園 黃裳鳳蝶

黃裳鳳蝶為台灣特有亞種,被列屬為保育類蝴蝶,全年都可見其飛舞身影,其中又以夏季較常見,寄主植物為港口馬兜鈴,喜好訪花吸蜜。雄蝶下翅多呈黃色、外緣各翅具黑色的三角形斑紋;雌蝶下翅呈黑黃相間,腹部背側為黑色。

主要生長在嘉義以南的低海拔區域,尤 其在最南端的墾丁國家公園一帶,包括墾 丁森林遊樂區、鵝鑾鼻半島、南仁山等地, 都是黃裳鳳蝶的棲息地。而蘭嶼的珠光鳳 蝶與黃裳鳳蝶極為類似,僅後翅外緣與腹 部色彩的差異可供區別。



## Kenting National Park **Triodes aeacus Kaguya**

The golden birdwing (*Triodes aeacus Kaguya*) is an endemic sub-species in Taiwan and is currently listed as an endangered species. Adults can be seen all year round, especially in the summer. The larvae tend to feed off the leaves of the *Aristolochia zollingeriana*, while the adults prefer to sip nectar. Males have golden hind wings with black triangle-shaped spots along the outer margins. Females have complex patterns of golden and black stripes on their hind wings, with black color on their back and abdomen.

The species lives at low elevations in south of Taiwan regions, especially in Kenting National Park. Eluanbi Penisula, Nanren Mountain, as well as recreational areas of Kenting National Park are their common habitats. Another species, birdwing butterfly (*Troides megallanus*) based on Lanyu Island, share similar features with golden birdwing. The only difference is the color of the outer ring on their hind wings and abdominal region.



台灣特有亞種 Endemic Sub-Species in Taiwan

分布在台灣及其周邊地區的同一種生物,因生殖隔離而造成台灣地區的族群具有獨特的遺傳特徵,且與周邊地區的族群不相同,稱為台灣特有亞種。

The similar organism is distributed in Taiwan and other ambient areas. Because reproductive isolation to make certain genetic features of species in Taiwan, and different kind of species from other areas.

Resource: 陳建志 / Chien-chih Chen



#### 左頁圖 Left

紫斑蝶的前翅背面有紫色光澤,春夏在全台繁殖,冬天聚集南部過冬。(林柏昌 攝) The *Euploea* has purple color under their front wings. They breed in spring and summer all over Taiwan, and over winter in the south. (by Bo-chang Lin)

#### 右頁圖 Right:

黃裳鳳蝶能展翅約13到20公分,成蟲整年可見,但主要發生期為每年3至4月、9到10月間。(林柏昌 攝)

With spread wings, the *Troides aeacus kaguya* can reach 13-20cm. Imagos can be seen year round, and mainly is discovered from March to April, and September to October. (by Bo-chang Lin)



## 太魯閣國家公園 曙鳳蝶

同樣屬於保育類蝴蝶的曙鳳蝶,為台灣特有種,是鳳蝶科的大型鳳蝶,下翅外半段反面呈桃紅色澤,帶黑色斑點。曙鳳蝶是產於2,500公尺山區的蝶類,最常出沒在慈恩、碧綠神木、大禹嶺、松泉崗等中橫一帶,每年7、8月是大發生的時節。

# Taroko National Park \*\*Atrophaneura horishana\*\*

The highland red-bellied swallowtail butterfly (*Atrophaneura horishana*) is an endemic subspecies in Taiwan, as well as an endangered species. It is a large species in the Papilionidae family. The distinguishing features are the pink color with black spots on the back side of the outer ring of their hind wings. They are distributed primarily in mountains above 2,500 meters in elevation, and mostly seen in Cih-en, Bilyu Sacred Tree, Dayuling and Songcyuangang. July and August are the best timing to see clouds of exquisite butterflies appearing in enormous fluttering swarms in this area.



#### 左頁圖 Left:

曙鳳蝶雖屬於高山蝴蝶,但為尋蜜源,也會出現在低海拔山區。(林柏昌 攝)

Though favouring high altitude mountains, the *Atrophaneura horishana* travels to lower elevations for nectar resources. (by Bo-chang Lin)

### 右頁圖 Right

紫斑蝶每年9月會越過玉山塔塔加鞍部向南飛行。(陳建志 提供) The Euploea travels towards the south through Tataka Saddle in September. (by Chien-chih Chen)



能適應中海拔環境的曙鳳蝶,雖產於高山,吸取有骨消的花蜜,但隨著時節變換、溫度下降,曙鳳蝶便會向下飛抵低海拔山區,尋找其他蜜源,像是每年的雙十節,就可以到太魯閣國家公園的天祥路段,一賞曙鳳蝶的美麗倩影。

Though favouring mid-altitude mountains, where they feed on nectar of *Sambucus chinensis*, highland red-bellied swallowtail butterflies travel to lower elevations for other food resources when the temperature drops. It's easy to spot them in Tiansiang area in Taroko National Park around the National Day in early October.

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## 散布行為 Dispersion

有些蝴蝶因氣候不良、 資源短缺或天敵危害等 因素,造成當地環境無 法包容其生存,被迫定 其他地區移動另覓適宜 棲息的環境,稱為蝴蝶 的「散布」行為。散布通 常沒有固定方向,與週 期性、重複性的「遷移」 行為不同。

Dispersion of butterflies occurs due to factors like climate, food, and other environmental causes. The dispersion could be towards other suitable habitats. However, this behaviour is not a periodic or repeat phenomenon.

Resource: 陳建志 / Chien-chih Chen

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