

台北動物園蝴蝶館中紫蛇目蝶之 生物學探討

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摘要：在蝴蝶館中已立足之紫蛇目蝶(*Elymnias hypermnestra hainana* Lenné)於氣溫回升後開始繁殖，惟當其族群密度達到高峰後會將館中之寄主植物啃食殆盡，引起館中之族群動態呈現頗大之波動，影響展示效果之持續，並破壞展示場所之景觀，因此將繁殖場所及展示場所隔離是較理想的經營對策。

開放時間內紫蛇目蝶吸食鳳梨汁液之日週性對展示效果影響不大，是極易展示之行為，值得開發為展示題材。

本研究並在 $25 \pm 1^\circ\text{C}$ ， $85 \pm 5\%$ 及12小時光照條件下以觀音棕竹(*Rhapis excelsa*)飼育紫蛇目蝶，結果卵期為 5.39 ± 0.55 天；第1-5齡幼蟲之發育齡期分別為 4.03 ± 0.82 ， 3.42 ± 0.75 ， 4.06 ± 0.62 ， 3.97 ± 0.69 及 6.13 ± 1.13 天；蛹期為 8.03 ± 0.31 天；從卵到羽化之總發育期為 35.16 ± 2.03 天。盛產期之蛹可以 20°C 之低溫來延後其羽化時間；水分對成蝶壽命影響極大，上述特性均可做為館中調整此蝶族群參考；本文同時記錄卵之大小，各齡幼蟲頭殼寬及雌雄蝶之翅長、體長等數據。

關鍵詞：紫蛇目蝶、觀音棕竹、族群動態

前言

紫蛇目蝶(*Elymnias hypermnestra hainana* Lenné)主要分佈於印、亞、澳等地區，台灣是其分佈之最北界；全世界約有28個亞種，1903年Fruhstorfer曾以*Elymnias nigrescens formosana*加以命名，1930年日人楚南仁博，比較台灣產之紫蛇目蝶和海南島之紫蛇目蝶並無差異而改名*Elymnias*

hypermnestra hainana Moore，沿用至今(白水，1960)。

紫蛇目蝶是分佈台灣各地中、低海拔之普通蝶種，蘭嶼及澎湖亦有分佈，除了低溫期數量較少外，全年各月份均有成蝶發生。根據以往之採集記錄4月份及7、8月份間是發生的兩次高峰期(山中，1974；內田，1988；張、蔡，1984)。在蛇目蝶中，紫蛇目蝶是較特異的一群，翅上不具蛇眼紋，翅型及交尾器構造亦

THE BIOLOGICAL STUDIES OF LINNAEUS COMMON PALMFLY, (*Elymnias hypermnestra hainana* LINNE (LEPIDOPTERA: SATYRIDAE) IN THE BUTTERFLY AVIARY AT TAIPEI ZOO.

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ABSTRACT: The Linnaeus common palmfly *Elymnias hypermnestra hainana* Linné are attracted by rotten fruit for fermented solutions, this sucking behavior is a worthwhile good topic for educational display.

We had established the population of this butterfly in our aviary since 1989. In the year of 1990, the population density reached the maximum in summer. There were about 100 individuals can be observed per day from June to July. Soon, they consumed the hostplant *Rhapis excelsa* planted inside the aviary as fig. 1 and the population density sloped down. The population dynamic presented a dramatic fluctuation. Because we can't keep the display level and the landscape, therefore, the commendable management shall be isolated the breeding site from display site.

Eggs collected from the aviary were set in the growth chamber with $25 \pm 1^\circ\text{C}$, $85 \pm 5\%\text{RH}$, LD12:12 photoperiod, and hatching larvae were reared with the leaves of *Rhapis excelsa*. The results indicated that the duration for egg stage was 5.39 ± 0.55 days. The duration of five larval instars were 4.03 ± 0.82 , 3.42 ± 0.75 , 4.06 ± 0.62 , 3.97 ± 0.69 and 6.13 ± 1.13 days respectively. The pupal stage took 8.03 ± 0.31 days. It took 35.16 ± 2.03 days to complete one generation. According to this research pupae keep at 20°C , took 17.00 ± 0.98 days for emergence, the survival rate was 90%. Water was an important factor for the longevity of adults. Character list could be applied to regulated the population dynamic.

The egg-size, head capsule width, wing width and body length were also described in this paper.

KEY WORDS : Linnaeus common palmfly, *Elymnias hypermnestra hainana* Lenné, *Rhapis excelsa*, population dynamic

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