



↑海樂斯白兜・77mm・2005
Dynastes hyllus.

中美洲白兜蟲

Dynastes hyllus

我和中美洲白兜的初遇要追溯到可以說是養蟲界的石器時代。當時1998年，在台灣有飼育兜蟲的夥伴們用「屈指可數」來形容並不誇張。在那個時代，蟲迷最極限就是飼育離家幾百公里自己採集的品種。發發幾封e-mail就會有快遞把國外的品種送到家門口在當時根本就是天方夜譚。當時萬萬沒想到今天在台灣養蟲竟會是如此地方便。十幾年前養蟲最大的瓶頸就是缺乏交流資訊的管道。沒有交流平臺，國外的品種拿不到、飼育耗材買不到、自己沒養過的種類不知該如何飼育，到最後通通DIY。也因此，養蟲的文化一直發展不起來。大約在1995年時網路起飛。

My first encounter with this variety goes back to the “Stone Age” of the beetle culture. It was 1998 and only a handful of people outside of Japan were rearing rhinoceros beetles. And the beetles kept were limited to native species. That a simple click of the mouse can have exotic species delivered to the hobbyist’s doorstep was completely unimaginable then. The biggest bottleneck then was a lack of communication platform. Hobbyists had no access to exotic species or breeding accessories. Any rearing difficulties must be overcome by oneself. As a result, the beetle breeding culture could not proliferate. But with the rise of the Internet in 1995, things started to change. By 1997,



但是世界各地的蟲友並沒有立刻被連起來。大約到1997年時蟲友才有足夠的電腦知識自己架網站。一旦各國的蟲友陸續架起網站，並在網頁中提供e-mail或其他連絡方式，養蟲文化便像野火燎原一般再也停止不了。臺灣養蟲文化的興起都拜當時「安妮的昆蟲世界」網站。也因為網路的關係，我認識了一位美國籍的生物學家，而他的好友是一位大學教授，經常有機會到宏都拉斯採集做研究。就在1998年的春天，他們計畫了夏天要再度到宏都拉斯採集，並邀我同行。雖然這是一輩子少有的機會，而且住宿、嚮導、器材通通打理好，我只要出人即可，但由於當時已計畫要回台灣過暑假，再加上行程費用不低，於是我只能祝他們好運。很快地，暑假過了，他們一行人也從宏都拉斯回來了。我迫不及待地向他們詢問收穫。他們說這次的收穫中除了數不清的寶石金龜以及蛾類以外，最特別的就是採集到這輩子最大隻的*Dynastes hyllus*白兜蟲。他們甚至給了牠一個封號，叫做「King of hyl-

most beetle enthusiasts had acquired enough computer skills to make homepages. Once beetle enthusiasts around the world got connected, there was simply no stopping to the beetle breeding culture. Through the Internet, I met several beetle enthusiasts and one of them was an entomologist who frequented Honduras. In the spring of 1998, I was informed that a Honduran collecting trip had been planned for the summer and I was invited. I really wanted to go, but had already planned a trip to Taiwan for the summer. Very quickly, summer went by. I asked him about his collecting trip. He said that the highlight of the trip was the collection of the biggest *Dynastes hyllus* he had ever seen. He even gave it a title "King of *hyllus*."



↗ 海樂斯白兜雌蟲。墨西哥。62 mm。2004五月。照片帕斯可·格羅希博士提供
D. hyllus. Mexico. May, 2004. Photo by Dr. Paschoal Grossi



↗ 海樂斯白兜雌蟲。58 mm。2007
Dynastes hyllus ♀.



♂海樂斯白兜。75 mm。2007
Dynastes hyllus.



♂海樂斯白兜。73 mm。2007
Dynastes hyllus.

lus」，也就是「海樂斯之王」。

當時的我並不認識 *D. hyllus*，於是我便問他們那是什麼蟲。他們回答牠是中美洲的白兜蟲，長得跟美西白兜很像，但是更大。他們更是一再強調，他們這一次採集到的是前所未見的超大個體。美西白兜是我熟悉的種類，這一隻又是超大個體，這我就感興趣了。於是在我從台灣返回田納西州的途中在洛杉磯短暫停留，特別去朋友家看那隻所謂的「海樂斯之王」。一路上我滿心期待，心想即將見到的將會是一隻超大的白兜。但是當他把標本箱像是餐廳裡最上等的美食送到我面前時，頓時間，我有點失望。說實在的，這隻蟲的外表並不起眼：顏色暗暗的、胸角和頭角短短的、頭輕身體大、整隻沒有大型個體應該有的表現（頭角胸角抽出去，呈現出

Back then I didn't know *D. hyllus* so I asked what kind of beetle it was. He said that it looked very much like *D. granti* but larger. He reiterated that this specimen was extraordinarily large. I decided to have a look of it. So on the way to Tennessee, I made a stopover in Los Angeles. I was full of anticipation and expecting to see a giant *D. granti*. However, when the beetle was presented to me, I was a little disappointed. It wasn't a striking beetle. It was murky yellow, with a short and chubby thoracic horn. It was a big beetle, but it took on the minor form. It would've been much more impressive had it had a long thoracic horn. That was my first impression of *D. hyllus*.

By 1999, Japan had in culture pretty much all the species in the Genus *Dynastes* with the exceptions of *D. hyllus* and *D.*



♂海樂斯白兜。左73 mm右75 mm。2007
Dynastes hyllus.

「頭重體小」的狀態)，實在是沒有什麼「王者」的風範。這，就是我對*D. hyllus* 的第一印象。

大約在1999年時，日本已經完成收集數量可觀的美東白兜蟲、美西白兜蟲、長戟大兜蟲，以及海神大兜蟲，可以說是*Dynastes*屬的兜蟲都已經齊了，除了撒旦大兜蟲以及*D. hyllus*。也就是在這個時候，日本掀起了一陣海樂斯旋風，*D. hyllus*在日本瞬間爆紅。但是很奇怪地，我並沒有被感染，可能是在我的印象中海樂斯就是沒有什麼大特色。不過有一點我非常好奇，那就是為什麼日本所進口的海樂斯體色較白，而且胸角及頭角都比我朋友的那隻「海樂斯之王」明顯來得長？由於海樂斯的數量一直都相當稀少，因此價格充分地反映了牠的珍稀度。此時的採集產地為

satanas。Suddenly, *D. hyllus* craze got ignited. The first shipments of *D. hyllus* into Japan came from Mexico. Those individuals looked very much like giant *D. granti*. In 2000, *D. hyllus* price started to become middle-class friendly. But it was not due to the first arrivals having produced lots of offspring. It was because the Japanese had discovered a new location with more stable *D. hyllus* population than Mexico. It was Honduras. However, *D. hyllus* from Mexico and Honduras look somewhat different. Those from Mexico have a longer thoracic horn. Those from Honduras have a thoracic horn more stout like that of *D. tityus*. Eventually, *D. hyllus* from Honduras was renamed *D. maya* by the Canadian entomologist Hardy in 2003. Reclassification of *D. hyllus* didn't stop there. Two more varieties came about: *D. hyllus moroni* and *D. miyashitai*. The



墨西哥。當時我心想為什麼沒有人去宏都拉斯採集。這個狀況大約持續了一年。大約在2000年的時候，海樂斯的價錢慢慢地下滑了，但是這並不是因為養殖出大量的後代，而是日本發現了比墨西哥產量更穩定的新產地：宏都拉斯。但是這兩個產地的海樂斯長得不太一樣：墨西哥產的雙角比較長，偏向美西白兜、宏都拉斯產的雙角比較短，偏向美東白兜。也因此，在2003年的時候，加拿大籍的昆蟲學家把宏都拉斯產的海樂斯白兜蟲重新發表為獨立種，命名「瑪雅白兜蟲」*Dynastes maya*。中美洲白兜蟲的分類還不只如此。之後又陸續發表了一個新亞種和一個新種。新亞種是「莫隆氏白兜蟲」*Dynastes hyllus moroni*，特色為胸部是黑褐色的。新種是「宮下氏白兜蟲」*Dynastes miyashitai*，這一隻蟲體色比海樂斯更白，是外觀最接近美西白兜的中美洲白兜，而且腹部的毛量是中美洲白兜裡最茂密的。但是各種中美洲白兜之間的差異並不是每一隻都很明顯，也有外觀重疊的時候。比如說，有時候也會出現雙角

former has a characteristic dark pronotum. The latter has the lightest tone of all *D. hyllus* varieties. It very much looks like a giant *D. granti*. The ventral side of this beetle is also the hairiest of the varieties. However, it is important to point out that the differences between the varieties aren't always distinct. Overlapping of traits often occur. For example, some individuals of *D. maya* have a slightly longer thoracic horn or lighter tone.

Dynastes hyllus hyllus is found in central Mexico. Distribution elevation is 1000-1600 meters above sea level. *D. h. moroni* is

↓→海樂斯白兜。墨西哥。85 mm。2004五月。照片帕斯科·格羅希博士提供

D. hyllus. Mexico. May, 2004. Photo by Dr. Paschoal Grossi





↑ ↗ 瑪雅白兜。瓜地馬拉恰帕斯省。野生蟲。60 mm。1987。標本陳俊秀提供
Dynastes maya. Guatemala, Chiapas. Wild specimen. Dried specimen provided by Jason Chen



↑ ↗ 瑪雅白兜。瓜地馬拉上維拉克魯斯省，聖克里斯托堡。野生蟲。82 mm。2002六月。照片帕斯可·格羅希博士提供
D. maya. Guatemala, Alta Veracruz, San Cristobal. Wild specimen. June, 2002. Photos by Dr. Paschoal Grossi



↑ ↗ 莫隆氏白兜。墨西哥維拉克魯斯州聖地牙哥杜克斯拉，希洛艾爾碧希亞。野生蟲。海拔850公尺。71.5 mm。
1967九月。米格爾·莫隆博士攝
Dynastes hyllus moroni. Mexico, Veracruz, Santiago Tuxtla, Cerro El Vigia. Wild specimen. 850 meters above sea level. September, 1967. Photos by Dr. Miguel Angel Morón Ríos



♂莫隆氏白兜雌蟲。此亞種雌蟲翅鞘前端至少有三分之一是黑色的，並且有明顯的網狀凹陷。68 mm。2008 Female *Dynastes hyllus moroni*. At least anterior third of elytra darkened and covered with small indentations.



♂宮下氏白兜雌蟲。野生蟲。55 mm。標本陳俊秀提供 Female *Dynastes miyashitai*. Wild specimen. Dried specimen provided by Jason Chen

不算短，或是體色偏淡的瑪雅個體。也因此，以上所提到的區分方式只能算是整體性的指標。

原名亞種海樂斯白兜蟲的產地為墨西哥中部。海拔分佈為1000-1600公尺。莫隆氏白兜蟲的產地為墨西哥Veracruz州南部的Santa Marta山脈。海拔分佈為850-1200公尺。瑪雅白兜蟲的產地為墨西哥南部、瓜地馬拉、薩爾瓦多、宏都拉斯、尼加拉瓜。海拔分佈為500-600公尺。宮下氏白兜蟲的產地為墨西哥的Puebla州。海拔分佈為1500-2000公尺。

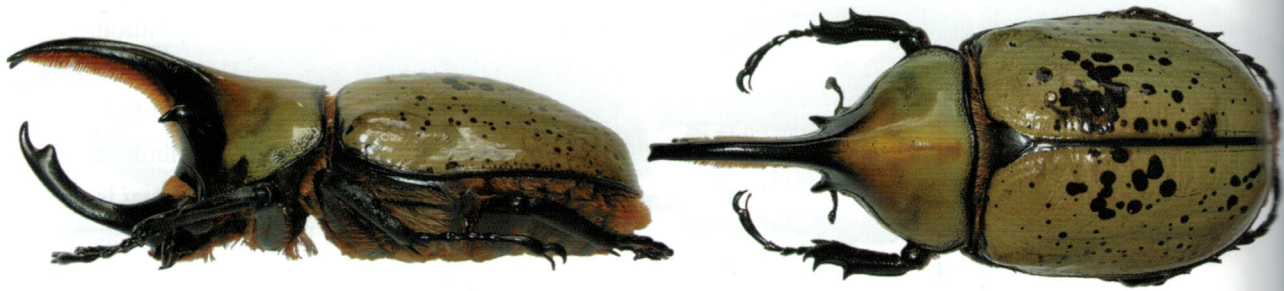
飼育方面，海樂斯白兜蟲的卵期約1個月。一齡幼蟲期20-30天。二齡幼蟲期30-45天。幼蟲使用發酵木屑或是腐植土飼養都可以。體重超過60公克的個體可羽化成80 mm以上的成蟲。雌性幼蟲體重在30-50公克之間。80%的幼蟲會在1年內造蛹室，剩餘的20%會拖到2年一化。這麼做可能是牠們避免近親交配的機制之一。羽化之後蟄伏期約45天。建議成蟲進食2個星期後再進行交配。在沒有交配的情況下，成蟲羽化後可活約6個月。母蟲產卵數在50-180之間。理想飼育溫度為20-24°C。

is found in the Santa Marta mountain chain of southern Veracruz, Mexico. Distribution elevation is 850-1200 meters. *D. maya* is found in southern Mexico, Guatemala, El Salvador, Honduras, and Nicaragua. Distribution elevation is 500-600 meters. *D. miyashitai* is found in Puebla, Mexico. Distribution elevation is 1500-2000 meters.

D. hyllus eggs take about 30 days to hatch. First instar lasts approximately 30 days. Second instar lasts 30-45 days. Larvae can be fed either flake soil or fermented decayed wood flakes. Larvae over 60 grams can become 80-mm-plus adults. Female larvae weigh between 30-50 grams. 80% of larvae construct pupal cell within the first year. The remaining 20% take two years to become adults. This may be their mechanism to avoid inbreeding. New adults remain inactive for about 45 days. They can be mated two weeks after becoming active. If not mated, adults can live 6 months. Females oviposit 50-180 eggs. Ideal temperature range is 20-24°C.



↗莫隆氏白兜。94 mm。2008
D. hyllus moroni.



↑↗宮下氏白兜。墨西哥普埃布拉州。野生蟲。84 mm。2005八月。照片帕斯可·格羅希博士提供
D. miyashitai. Mexico, Puebla. Wild specimen. August, 2005. Photos by Dr. Paschoal Grossi



↗宮下氏白兜腹部的毛特別多。野生蟲。65 mm。標本陳俊秀提供
Dynastes miyashitai has the most ventral hair. Wild specimen. Dried specimen provided by Jason Chen

↗宮下氏白兜。野生蟲。65 mm。標本陳俊秀提供
Dynastes miyashitai. Wild specimen. Dried specimen provided by Jason Chen



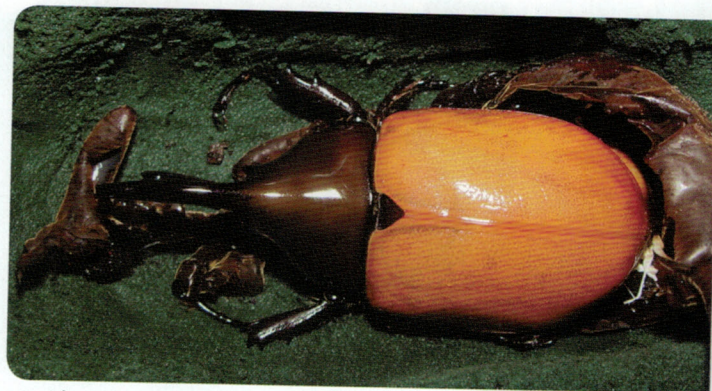
← 海樂斯白兜幼蟲。2006
D. hyllus larvae.



↗ 老熟海樂斯白兜幼蟲。2006
Mature *D. hyllus* larva.



↗ 海樂斯白兜蛹。2006。活體王錕泰提供
D. hyllus pupa. Live specimen provided by
Wang Kun-tai



↗ 正在羽化的海樂斯白兜。2006
D. hyllus eclosing.



↓ 海樂斯白兜新成蟲。2006
D. hyllus new adult.



↘ 超巨大海樂斯白兜。94mm。活體張錦洲提供。2008
Gigantic *D. hyllus*. Live specimen provided by Chang
Jing-chou



← 海樂斯白兜新成蟲。2006
D. hyllus new adult.



海神大兜蟲。131 mm。2005
D. neptunus.

海神大兜蟲

Dynastes neptunus



海神大兜蟲。122 mm。2005
D. neptunus.