

D.
ead
upa
ac-
ive
ed.



↗ 亞克提恩大兜蟲。107 mm。2003
Megasoma actaeon.

巨身兜蟲 (象兜) 屬

The Genus *Megasoma*



↗ 渾身是毛的毛大象大兜蟲。117 mm。2005
Velvety Megasoma elephas.



↗ 戰神大兜蟲。124 mm。2005
Megasoma mars.



「Megasoma」這個單字可不是隨便幾個字母的組合，它有非常特別的含意。在希臘文中，「mega」代表「巨大」、「soma」代表「身體」。難道說這個屬裡頭的甲蟲擁有巨大的身體嗎？沒錯，當分類學家Linnaeus在1758年收到*Megasoma actaeon*的標本時便決定再也沒有更適合的屬名了。他在同年也命名了長戟大兜蟲*Dynastes hercules*、美東白兜蟲*D. tityus*、三角龍兜蟲*Strategus aloeus*、阿特拉斯大兜蟲*Chalcosoma atlas*、犀角金龜*Oryctes rhinoceros*，以及頂三角兜蟲*Phileurus didymus*，但也只有*Megasoma actaeon*夠格使用「Megasoma」。這個屬裡頭包括了全世界最重的前四名大兜，分別為「亞克提恩大兜蟲」*M. actaeon*、「亞努斯大兜蟲」*M. janus*、「戰神大兜蟲」*M. mars*，以及「毛大象大兜蟲」*M. elephas* (*M. a.*幼蟲更是可破200公克)。這些巨無霸也是全世界力氣最大的昆蟲。要把牠們放在手上把玩是絕對要有心理準備的。雖然牠們脾氣溫馴，但是牠們有個特性就是一旦抱住你的手臂或是手掌便會越抱越緊，時常讓人大呼吃不消。

巨人自然有巨大的食量。常常會有蟲友開玩笑地說快要被吃垮了。牠們的成蟲每天都要吃掉至少兩顆的果凍。這一屬的成蟲非常不耐餓。不像其他兜蟲沒有食物時一般只會四處走動，巨身(象兜)屬的成蟲一旦沒有食物便會相當不安分地在容器內不停地振翅，積極地尋找食物。若不趕緊補充食物，成蟲很容易餓死。

“Soma” means “body” in Greek. Put together, “megasoma” means “giant body.” There is perhaps no better name for this genus. Of all the giant rhinoceros beetles, the heaviest four are all members of *Megasoma*, namely *M. actaeon*, *M. janus*, *M. mars*, and *M. elephas*. Male larvae of *M. actaeon* reach 200 grams. Although *Megasoma* beetles are mild-tempered, they have a lot of strength. Once they get a hold of your arm, it will take a while to get them off, and not without leaving some minor scratches.

Being the giants they are, *Megasoma* beetles require large amounts of food. They are more sensitive to starvation than other beetles. Once out of food, they anxiously flap their wings about in the rearing container. If food is not given soon, death occurs.

M. janus has three subspecies. Most commonly kept in captivity is *M. j.*



亞克提恩大兜雌蟲。77 mm。2003
Female *M. actaeon*.



♂亞努斯大兜蟲。95 mm。2006
Megasoma janus ramirezorum.



♂毛大象大兜蟲。胸角往前斜出。115 mm。2005

M. elephas elephas. Thoracic horns develop forward.



♂西方毛大象大兜蟲。胸角橫向發展。111 mm。2007

M. e. occidentalis. Thoracic horns develop horizontally.

分類上而言，亞努斯大兜蟲又分為3個亞種。台灣最有機會飼育到的是 *M. j. ramirezorum*，俗稱「翅鞘閃亮大兜蟲」，因為其翅鞘比原名亞種稍微光亮。毛大象大兜蟲有4個亞種。台灣最有機會飼育到的分別為原名亞種以及 *M. e. occidentalis*。原名亞種的胸角往前斜出，但是 *occidentalis* 的胸角卻是長橫的。

飼養大兜蟲時偶爾會發生雌蟲被雄蟲夾死的悲劇，但在巨身屬這樣的意外並不會發生。當雌蟲不願意交配、一直逃跑時，雖然雄蟲偶爾會惱羞成怒地用頭角去頂母蟲，但由於此屬的胸角長度不足、無法將雌蟲扣於頭角及胸角間。

巨身屬的雄蟲在羽化時有個大特色。其他兜蟲在羽化時頭角都已經硬化。形狀、大小不會再有任何的改變。

ramirezorum. It has metallic elytra. *M. elephas* has four subspecies. Most commonly kept are the nominate variety and *M. e. occidentalis*. The nominate variety has slanted thoracic horns. *M. e. occidentalis* develops horizontal thoracic horns.

While males of many species occasionally kill their mate, this does not occur with the Genus *Megasoma*. Although males do occasionally attack females unwilling to mate, they do not have the long thoracic horn required to trap and crush the female.

Megasoma males have a unique trait, and that is “spreading” their cephalic horn during eclosion. This is not found in any other rhinoceros beetles. When *Megasoma* males first eclose, their cephalic horn is petite and curved inward. It takes a few days for the cephalic horn to extend forward and harden. As a result, do not mistaken a male



♂西方毛大象大兜蟲交配。111 mm。2006
M. e. occidentalis mating.



♂剛羽化的戰神大兜蟲。115 mm。2005
Newly-eclosed *M. mars*.

但是這一屬的雄蟲剛羽化時頭角是柔軟、嬌小、往上捲曲的，在往後的幾天才會慢慢地向前伸展，非常地特別，因此幼蟲化蛹後不要誤以為化蛹失敗或是養出小角型個體。這種展角的現象和金鍬及彩虹鍬在羽化時會展顎的情況類似。

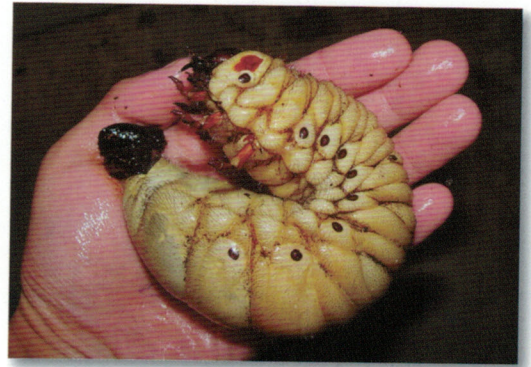
飼養巨身屬的幼蟲一定要有耐性。巨大的身軀相對地也需要長時間的發育。在4種最大型的巨身兜蟲裡，最快羽化的毛大象大兜蟲從孵化到羽化最快也要1年7個月，平均2年一化，亦有拖上近3年者。幼生期最長的為亞克提恩大兜蟲和亞努斯大兜蟲，從孵化到羽化平均3年以上，亦有4年一化個體，令人感到不可思議，也讓許多飼育家卻步。不過正也因為其養成相當不易，亞克提恩大兜蟲之人工飼育品在價格上充分地反應慢工出細活的可貴。大型的種類幼蟲

pupa for a minor or a failed pupation. This phenomenon is similar to *Phalacrognathus muelleri* and *Lamprima adolphinae* spreading mandibles during eclosion.

Culturing giant *Megasoma* requires a lot of patience. Giant bodies take a long time to make. Of the four giant *Megasoma*, *M. elephas* has the shortest life cycle. Hatching to eclosion takes 19 months at the soonest. The average is 24 months. Some individuals take up to 36 months. *M. actaeon* and *M. janus* have the longest life cycle. Hatching to eclosion on average takes 36 months. Some individuals take up to 4 years. This explains why captive-reared *M. actaeon* adults are especially pricey. Although giant *Megasoma* take a long time to reach adulthood, their larvae grow very quickly. It only takes *M. janus* larvae 6 months to reach 100 grams. *M. actaeon* and *M. elephas* take 8 months. *M. mars* larvae become 150 grams in 14



↗ 177公克的毛大象大兜蟲。2006
177-gram *M. e. elephas* larva.



↗ 毛大象大兜蟲。2006
M. e. elephas larva.

期雖然久，但是幼蟲的成長速度卻是相當地快。根據飼養記錄，亞努斯大兜蟲從孵化到破百克只需6個月、亞克提恩大兜蟲和毛大象大兜蟲各需8個月、戰神大兜蟲1年2個月可達150克。這類大型象兜的卵期30-45天。一齡幼蟲期約35天。二齡幼蟲期30-50天。前蛹期約90天。蛹期40-60天。產卵數高達200粒。蛻伏期30-60天。建議進食1個月後再進行繁殖。如果沒有交配，成蟲可活約6個月。

除了幼蟲期偏長以外，大型種類的

months. Egg duration for giant *Megasoma* is 30-45 days. L1 stage lasts about 35 days. L2 stage lasts 30-50 days. Pre-pupa period about 90 days. Pupa period 40-60 days. Females oviposit up to 200 eggs. New adults stay inactive for 30-60 days. Allow new adults to feed for a month before breeding. If not mated, adults can live 6 months.

Excluding the lengthy larval period, giant *Megasoma* are actually great beginner beetles, as they are rather tolerant of heat. 30°C does not kill them. However, the ideal temperature range is 22-25°C.



↑ 剛孵化的毛大象大兜蟲。2002
Newly hatched *M. e. elephas*.



↗ 亞努斯大兜蟲的蛹。這隻個體養了4年! 105 mm。2006
M. j. ramirezorum pupa. This individual took four years to pupate!



↗ 亞克提恩大兜蟲的蛹。115 mm。2002
M. actaeon pupa.



✓ 21 mm的超巨大亞克提恩幼蟲頭幅。2006
M. actaeon larva with enormous 21-mm head capsule.

巨身兜蟲其實很適合一般大眾飼育，因為牠們對高溫的耐力要比許多種類來得強，面對30度的高溫並不會死亡，但是理想的溫度仍然為22-25度。

大兜蟲的體長很難以幼蟲的體重推測，巨身兜蟲也不例外。就以毛大象為例，曾經有兩隻兄弟蟲，在一模一樣的飼養環境下(一樣食物、空間、溼度、溫度)，一隻幼蟲最高體重130公克羽化成119 mm的長鼻象，一隻146公克卻羽化成111 mm的短鼻象。

It's very difficult to predict how big of an adult a larva will become by its weight. This applies to giant *Megasoma* as well. There was once a pair of *M. elephas* brothers. They were reared in the same environment (same substrate, space, humidity, temperature). One had a maximum weight of 130 grams. He became a 119-mm adult with a long cephalic horn. The other had a maximum weight of 146 grams. He became a 111-mm adult with a short cephalic horn.



✓ 禿毛的毛大象大兜蟲。110 mm。2005
M. e. elephas with hair loss.



在四種最大型的巨身兜蟲裡，毛大象大兜蟲是唯一有長毛的。其身上的絨毛容易與堅硬的物體摩擦後脫落，導致禿毛現象。很多玩家並不願意見到這樣的狀況，於是在成蟲羽化不久後便選擇冷凍做標本。毛大象的禿毛完全是由外力所致，和年紀沒有任何關係。其實此狀況是可以避免的：

Of the four giant *Megasoma*, *M. elephas* is the only one with hair as adult. The hair is easily scratched off. Some hobbyists choose to freeze the adults while all the hair is still intact. Such practice is unnecessary as long as precautions are taken:

1. 在空間足夠的飼養容器內鋪上大量的園藝用水苔（質感柔軟不會刮毛）
2. 在正中央擺置一塊攀爬木，並確定攀爬木和容器四周或是頂端有一定的距離，避免毛大象的背部被飼養容器刮到。
3. 果凍殼切勿留在飼養容器內，因為果凍殼的邊緣特別容易刮毛。
4. 公母除了交配以外不要共同飼養，以避免爪子將對方毛刮掉。

1. Keep the adult in a spacious container bedded only with moist peat moss.
2. Make sure the perch is placed at the center of the terrarium. There must be plenty of space between the perch and the sides of the terrarium to prevent the beetle from being scratched by the terrarium wall.
3. Do not use food dishes with a rough edge.
4. Do not keep a pair together for an extended period of time as they may scratch each other.

有趣的是，世界上最小的一些兜蟲也來自此屬。在台灣比較有機會飼育到的小型巨身兜蟲分別為產於墨西哥西北部的「小戰神巨身兜蟲」*Megasoma pachecoi*、墨西哥下加利福尼亞州的「小毛象巨身兜蟲」*Megasoma thersites*，以及美國亞利桑那州南部的「龐克巨身兜蟲」*Megasoma punctulatus*。雄蟲體長30-65 mm。由於牠們的數量比大型種類稀少，因此價格也相對地較高。小型巨身兜蟲的

Interestingly, some of world's smallest rhinoceros beetles also come from this genus. *M. pachecoi* of northwestern Mexico, *M. thersites* of Baja California, and *M. punctulatus* of southern Arizona are the more frequently cultured of the small *Megasoma* beetles. Males are between 30-65 mm. Because they are much rarer than the giant *Megasoma*, they are naturally pricier. Small *Megasoma* don't take as long to develop. Egg duration is 20-30 days. L1 stage lasts about 40 days. L2 stage lasts 40-50 days. Total larval duration



♂龐克巨身兜蟲。人工飼育個體。34 mm。馬克馬尼格攝
Captive-bred *M. punctulatus*. Photo by Mc-Monigle

生活史就沒有大型種類那麼長。卵期20-30天。一齡幼蟲期約40天。二齡幼蟲期40-50天。總幼蟲期8-12個月，但有少數個體會拖到2年一化。蛹期40-50天。

巨身兜蟲的幼蟲用發酵木屑或是腐植土都可以養出好成績。有些蟲友也會拿鍬形蟲幼蟲吃剩的朽木屑或是廢菌包混入腐植土中餵食幼蟲。



♂三齡小戰神巨身兜蟲幼蟲。35公克的幼蟲可羽化成超過60 mm的個體。2007
L3 *Megasoma pachecoi*. 35-gram larvae can become adults over 60 mm.



♂小毛象巨身兜蟲。墨西哥產。48 mm。2007
Megasoma thersites. Mexico



♂小毛象巨身兜蟲。50 mm。2007
Megasoma thersites. Mexico

8-12 months. However, some individuals do take up to two years to become adults. Pupal duration 40-50 days.

Megasoma larvae are not picky eaters. Both flake soil and fermented decayed wood flakes can be used to successfully rear them. Some hobbyists even mix used stag beetle substrate into their feed.



♂小戰神巨身兜蟲。57 mm。2006
Megasoma pachecoi.