



↑ 黑島鋸锹形蟲。66 mm。2003
Prosopocoilus inclinatus kuroshimaensis.

傳統鋸锹形蟲

Prosopocoilus inclinatus



↙ 奄美大島鋸锹形蟲雌蟲。40 mm。2003
Female *P. dissimilis dissimilis.*

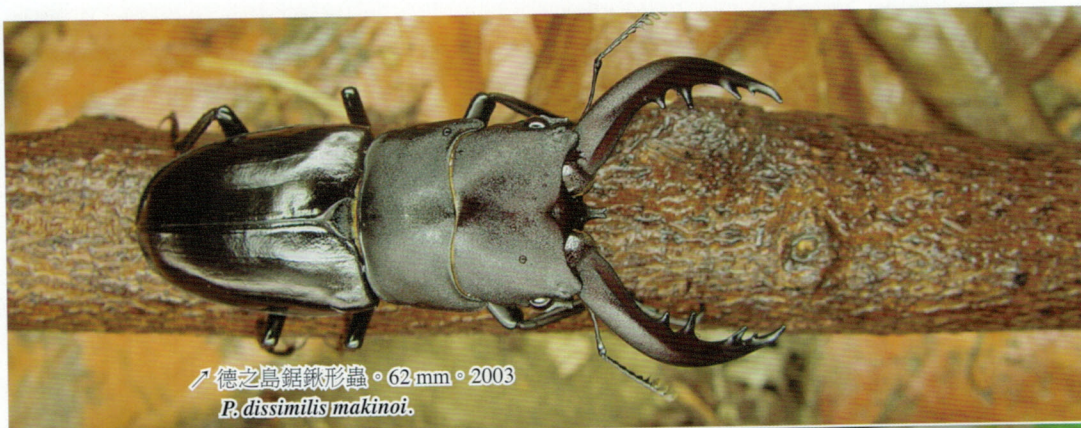
↘ 奄美大島鋸锹形蟲。73 mm。2003
P. dissimilis dissimilis.



吐噶喇島鋸锹形蟲。72mm。2003
P. dissimilis elegans.

在眾多的鋸锹形蟲中，發表於1857年的「日本本島鋸锹形蟲」應該是我的最愛。我稱牠和牠的近緣種「傳統鋸锹形蟲」，因為「鋸锹形蟲」這個名詞就是由牠們起源的。不像其他锹形蟲從側面觀察時大顎是呈現水平狀態，傳統鋸锹形蟲的大顎不論是從上面看或是從旁邊欣賞都有明顯的弧度，立體感十足。除此之外，這一系列的锹形蟲不是隨便養就會出現大型個體。牠們是典型的「你怎麼付出，牠們就怎麼回報」的種類，飼育起來特別有成就感。傳統鋸锹形蟲只分佈在亞洲最東邊的海島群，一路從北海道往南分佈到台灣。這一系列總共有5個種類，分別為*P. inclinatus*、*P. hachijoensis*、*P. dissimilis*、*P. pseudodissimilis*，以及*P. motschulskii*。其中雄蟲大顎弧度最大的為*P. inclinatus*和*P. dissimilis*。而*P. motschulskii*則是寶島的「高砂鋸锹形蟲」，同時也是傳統鋸锹中分佈最南的。由於傳統鋸锹形蟲廣泛分佈於海島上，因此亞種特別多。*P. inclinatus*有4個亞種，*P. dissimilis*有

Of all the *Prosopocoilus* stag beetles, my favorite is *P. inclinatus*, which was described in 1857. Most stag beetles have flat mandibles when viewed from the side. But *P. inclinatus* and related species have beautifully curved mandibles whether viewed from the top or side. It takes honest work to get major males out of these species. These beetles are found only in Asia's easternmost archipelagos from Korea down to Taiwan. There are five species: *P. inclinatus*, *P. hachijoensis*, *P. dissimilis*, *P. pseudodissimilis*, and *P. motschulskii*. Of the five, *P. inclinatus* and *P. dissimilis* have the curviest mandibles. *P. motschulskii* is from Taiwan and the southernmost species. Because many populations exist on islands, there are many subspecies. *P. inclinatus* has four and *P. dissimilis* has six. As these beetles are from low to medium elevation, they are somewhat tolerant of heat, but should not be exposed to temperature over 30°C.



♂ 德之島鋸锹形蟲 • 62 mm • 2003
P. dissimilis makinoi.



♂ 八丈島鋸锹形蟲 • 53 mm • 2002
P. hachijoensis.



♀ 八丈島鋸锹形蟲雌蟲 • 29 mm • 2002
Female *P. hachijoensis.*



♂ 高砂鋸锹形蟲 • 56 mm • 2003
P. Motschulskii.

6個亞種。傳統鋸锹形蟲是中低海拔的種類，可以不必特別控溫，但溫度不該超過30度。

第一次見到高砂鋸的雌蟲時感到相當驚訝。牠雖然有第一類雌蟲的大顎(修長又有明顯齒突)，但是卻有第三類雌蟲的身軀(身體厚實，前腳脛節寬大)。除此之外，牠的後腿脛節末端有和兜蟲一樣發達的擠壓器。當時我猜測朽木和腐植土都是高砂鋸的產卵環境。後來繁殖後發現，高砂鋸是相當會利用資源的種類，不但會在朽木和腐植土中產卵，就是連只有幾立方公分的朽木碎片都可以產卵。產卵環境的佈置請比照 *Prosopocoilus* 屬簡介中所提到的方式。(如果沒有朽木雌蟲仍然會產卵，但有些個體似乎比較喜歡含有產卵木的環境。) 雌蟲一生可產高達50粒卵，但通常為20-30粒。卵期2-3個星期。幼蟲孵化後可使用發酵木屑或是菌絲瓶飼養。高砂鋸是1年一化的種類，也就是說牠從

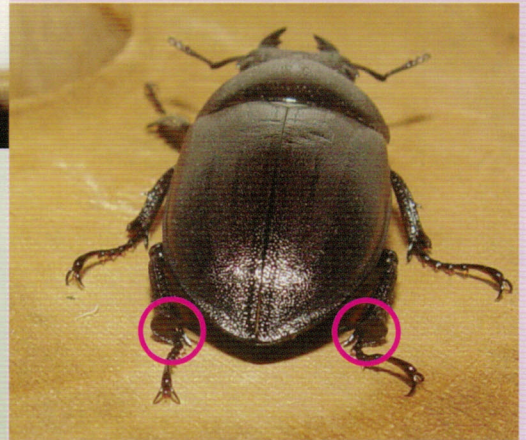
Females of these five species have a thick body and specialized front legs for digging and hind legs for packing substrate. These beetles make the best use of the environment. They oviposit in middle decayed wood as well as flake soil. Even tiny fragments of decayed wood are breeding ground. Please refer to the previous chapter for breeding tank setup. It is possible to get females to oviposit in a tank with only flake soil, but they tend to prefer substrate with decayed logs. Females are capable of ovipositing 50 eggs, but most oviposit 20-30 eggs. For *P. motschulskii*, egg duration is 14-21 days. Both fermented decayed wood flakes and kinshi bottles can be used to rear larvae. Larval duration is 4-10 months (about one fifth of larvae eclose five months after hatching, and they are all small to medium males). L1 lasts about 30 days. L2 lasts about 45 days. Pre-pupa period is 14-

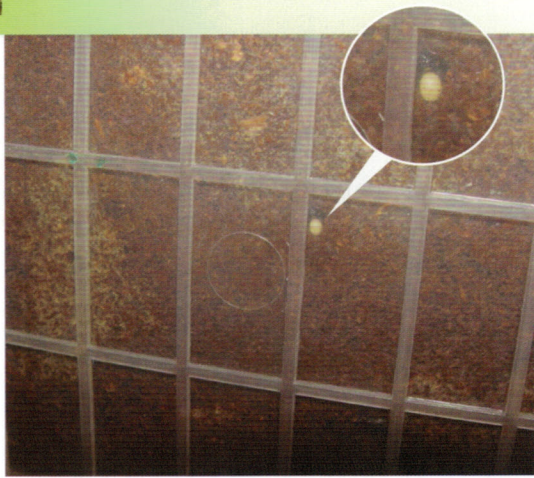
↘ 傳統鋸锹的雌蟲身體高厚，宛如金龜。圖為高砂鋸雌蟲。
Females have a thick body. Pictured is *P. motschulskii*.



↘ 寬大的前腳脛節特別適合挖土。圖為高砂鋸雌蟲。
Broad front legs designed for digging. Pictured is female *P. motschulskii*.

↘ 傳統鋸锹的雌蟲後腿脛節有特化的擠壓器。圖為高砂鋸雌蟲。30 mm。2007
Females have specialized hind legs for compressing substrate. Picture is *P. motschulskii*.





透過容器底部看見一粒產於發酵木屑中的卵。2007
Egg in fermented decayed wood flakes.



高砂鋸的幼蟲期讓人難以捉摸，來自於同一隻母蟲的幼蟲有些已經化蛹、有些是前蛹、有些還在進食。整體上而言，越晚化蛹的體型越大。2007
Larval duration of *P. motschulskii* is highly variable. Pictured are brothers. Yet one is pupa, three are pre-pupae, and three are still feeding.

孵化到羽化不會超過1年。不論公母，幼蟲期4-10個月(大約有五分之二的幼蟲孵化5個月後就會羽化，而且全部都是中、小型雄蟲)。一齡幼蟲期約30天。二齡幼蟲期約45天。前蛹期14-30天、蛹期約20-30天。蟄伏期不定，1個月到1年都有可能。大部分的新成蟲在五到七月份時開始活動。開始活動後成蟲可活3-10個月，但無法活到隔年夏天。

日本的傳統鋸蠅和高砂鋸雖然是近緣種，但生活史卻有明顯的不同。由於日本地區會經歷嚴苛的寒冬，日本鋸蠅的生活史包括了生長遲滯的時期。換句話說，日本的鋸蠅需要2年的時間才會完成生活史。卵期14-21天。幼蟲孵化後可使用發酵木屑或是菌絲瓶飼養。雌性幼蟲期8-10個月。大部分的雌蟲在四月份化蛹，五月份羽化。雄性幼蟲期10-12個月。大部分的雄蟲在六月份化蛹，七月份羽化。絕大部分的日本產鋸蠅新成蟲羽化後都不會當年活動，會一直蟄伏到隔年的七到八月份。不過還是有少數的個體羽化1個月後便交配產卵。開始活動後成蟲可活3-5個月。

30 days. Pupa period is 20-30 days. New adults stay inactive for 1-12 months. Most new adults become active between May and July. Once active, adults live 3-10 months.

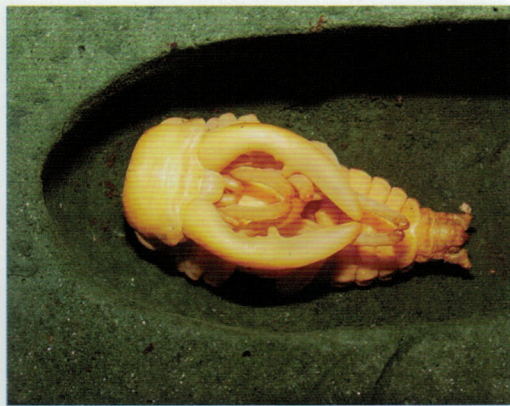
The four species from Japan have a longer life cycle as they experience colder winter. It takes them about two years to complete the life cycle. Egg duration is 14-21 days. Both fermented decayed wood flakes and kinshi bottles can be used to rear larvae. Female larval duration is 8-10 months. Most females pupate in April and eclose in May. Male larva duration is 10-12 months. Most males pupate in June and eclose in July. The vast majority of new adults stay inactive in their pupal cell until the following July to August. However, a few become active and reproduce one month after eclosion. Once active, adults live 3-5 months.



↗ 高砂鋸幼蟲。10公克的幼蟲可以羽化成50 mm以上的成蟲。2007
P. motschulskii larva. 10-g larvae can become adults over 50 mm.



↗ 飼養幼蟲的容器。發酵木屑中可添加中朽木塊。2007
Middle decayed wood chunks can be added to fermented decayed wood flakes.



↗ 吐噶喇島鋸锹形蟲的蛹。2007
Pupa of *P. dissimilis elegans*.



↗ 剛羽化的吐噶喇島鋸锹形蟲。61 mm。2006
Newly eclosed *P. dissimilis elegans*.



↗ 正在羽化的高砂鋸锹形蟲。54 mm。2008
Eclosing *P. motschulskii*.