蟲訊 Insect News

香港昆蟲學會通訊

Hong Kong Entomological Society Newsletter

兩對鹿蛾交配 Two mating pairs of *Thyrassia penangae*　　*Photo by Vor Yiu*

香港昆蟲學會會徽 HKES EMBLEM

會徽中的  乃小篆中的「虫」字，屬象形。小篆通行於秦朝（公元前221-207年），當時把大部份陸上動物都當作蟲，包括獸、鳥、魚、兩棲動物和爬行動物。在更早的甲骨文中，「虫」字是這樣的：  ，明顯是蛇的象形。回望過去，我們或許取笑古人對昆蟲的無知；展望將來，今天我們對昆蟲的認識，又何嘗不是還處於起步階段呢？

 is the Chinese character for "Insect" in Xiaozhuan — an ancient style of calligraphy adopted in the Qin Dynasty (221 - 207 B.C.). During that time, Chinese people considered most terrestrial animals to be "Insects", even mammals, birds, fishes, amphibians and reptiles. In the even more ancient Oracle style of writing, "Insect" was written as  .

Today, we might be amused at the apparent ignorance people showed towards insects in ancient times. But in these modern times, is our knowledge of insects really that much better than before?

《蟲訊》創刊號的出版或許標誌著我們對香港昆蟲的認知和探求進入另一個階段。嚴謹和深入的昆蟲研究都起始於對昆蟲的點滴觀察，這些片面零碎、但奧妙的資料最後引領我們走上探索之路。我們將這些關於昆蟲的點滴匯聚出版，為提升公眾對香港昆蟲的認知關注踏出一步。

The first issue of "Insect News" marks the beginning of a new stage in furthering our quest for knowledge about Hong Kong's insects. Even the most rigorous and dedicated research can start from one being curious and fascinated by the many interesting aspects of insect behaviour. Though individual personal observations may be isolated or fragmentary, they often fuel a deeper curiosity, a greater interest, leading us to delve further into studying insects in detail. By sharing these precious bits of information, we hope to raise public awareness and interest towards Hong Kong's insects.

蟲仔園　GALLERY

昆蟲交配 Insect Mating

狹腹灰蜻交配時，後方的雌性將腹末與雄性位於腹部前方的第二性器官緊貼。

The female Green Skimmer curves her abdomen to make connection with the secondary sexual organs of the male, which is located in the ventral side of the 2nd & 3rd abdominal segments.

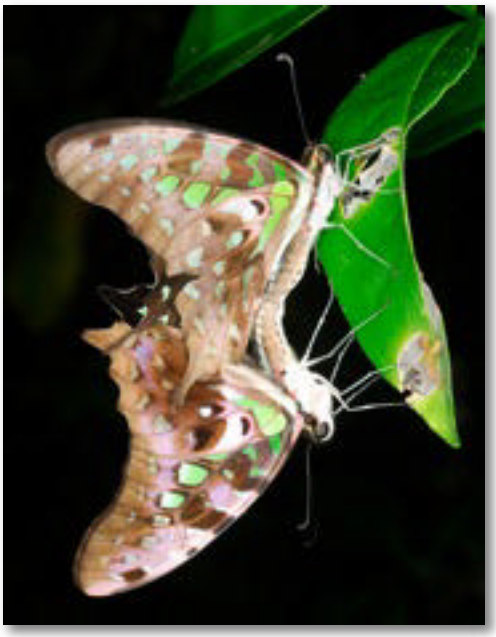
Photo by Graham Reels

交配是昆蟲生命史中最重要的歷程之一，亦是成蟲的生存目的。交配過程往往需要數個小時，如何能順利完成，涉及雌雄個體能否保持緊密連接。同一品種的雌雄的外生殖器，結構上通常十分吻合，而且多數雄外生殖器都具有抱握器，用以緊扣雌外生殖器。另外，有些昆蟲會利用其他附肢，如足、觸角，協助抱緊雌蟲，防止鬆脫。也有些昆蟲，身體形狀特殊，就發展出第二性器官，以至交配姿勢與別不同。部份昆蟲的雄外生殖器中的陽莖能大幅膨脹伸長，在雌性腹部距離較遠的情況下，依然可順利交配。交配方式很多樣化，絕對是昆蟲各樣行為中，最值得觀察的其中一項。

Mating is one of the most important processes in the life history of all insects, and is also the main reason for adult insects' existence and survival. Copulation often lasts for hours in many species, and its successful completion relies strongly on both sexes being able to stay firmly attached to each other. In most insects, the reproductive organs of each sex match perfectly with those of the other sex, and in many species the males' external genitalia have claspers, allowing them to be joined tightly to the female. In addition, males of many insects will use their limbs to firmly grasp the female, preventing escape or excess movement. Some insects, because of their unusual body shape, have even developed secondary sexual organs, leading to most unusual mating postures. The male genitalia of some other insects can swell and lengthen considerably, allowing successful copulation even with the male's abdomen at a slight distance from the female's. The mating process is indeed one aspect of insect behaviour most worth watching.

褐斑異痣蟌交配時，後方的雌性將腹末與雄性位於腹部前方的第二性器官緊貼。 The posterior female Common Bluetail curves her abdomen to make connection with the secondary sexual organs of the male, which is located in the ventral side of the 2nd & 3rd abdominal segments.

Photo by Graham Reels



蝴蝶交配時，雌雄的腹部末端非常緊扣，上方的雌蝶常可吊著雄蝶在空半飛行。圖中的乃木蘭青鳳蝶。

During mating, the abdomen tips of the pairs are so firmly connected that the female (on top) may even fly with the male in the air. The picture shows a pair of *Graphium agamemnon*.

Photo by Christophe Barthelemy

蟲仔園 — 昆蟲交配　GALLERY — INSECT MATING

紫莖甲身體表面光滑，雄性要固定自己位置並不容易。

It is not easy for the male *Sagra femorata* to hold itself tight on the smooth surface of female's back.

Photo by Christophe Barthelemy

雄性窄吉丁在交配時，要六足並用，才能固定交配姿勢。

The male *Agrilus* sp. uses all 3 pairs of legs to hold the mating posture.

Photo by Vor Yiu

雄性食蚜蠅在交配時，要六足並用，才能固定交配姿勢。

The male Hoverfly uses all 3 pairs of legs to hold the mating posture.

Photo by Vor Yiu

為配合圓筒形身體，瘤葉甲交配時，雌雄身體成"*T*"字形。

Due to their cylindrical bodies, warty leaf beetles form a "T" shape when mating.

Photo by Vor Yiu

蟲仔園 — 昆蟲交配　GALLERY — INSECT MATING

竹節蟲雄性個體遠較雌性個體細小。
The male stick insect is much smaller than its mating partner.

Photo by Vor Yiu

絨蟻蜂的雄性的體型比其無翅雌性大很多。
The male velvet ant is much larger than the wingless female.

Photo by Vor Yiu

蝎蛉交配時雌雄身體平行。
Scorpionflies mating in a position parallel to each other.

Photo by Vor Yiu

溪蛉交配時雌雄身體平行。
Osmylids (Osmylidae) mating in a position parallel to each other.

Photo by Vor Yiu

蟲仔園 — 昆蟲交配　GALLERY — INSECT MATING

有些甲蟲具有非常發達的雄外生殖器。
上：金斑虎甲　左：黃頸擬花螢　下：橡膠木犀金龜
Some beetles have very well-developed male genitalia.
Above: *Cicindela aurulenta* (Cicindelidae)
Left: *Idgia flavicollis* (Melyridae)　Below: *Xylotrupes gideon* (Dynastidae)

Photos by Vor Yiu

蟲仔園 — 昆蟲交配　GALLERY — INSECT MATING

大而硬化的前翅令龍眼雞交配的姿態特殊。
Large and hardened forewings make the mating posture of Lantern-flies unusual.

Photo by Vor Yiu

大而硬化的前翅令瓢蠟蟬交配的姿態特殊。
Large and hardened forewings make the mating posture of Issid Planthoppers unusual.

Photo by Vor Yiu

有翅雄性雌光螢與蠕蟲型的無翅雌性雌光螢交配姿態簡單。The mating posture of a winged male *Rhagophthalmus* sp. (Lampyridae) with its worm-like, wingless female partner is straightforward.

Photo by Vor Yiu

蟲仔園 — 昆蟲交配　GALLERY — INSECT MATING

交配期間可同時進食。
上：香港新棘竹節蟲
左：泛光紅蝽
Some insects can mate and eat at the same time.

Above: *Neohirasea hongkongensis* (Heteronemiidae)

Below: *Dinddymus rubiginosus* (Pyrrhocoridae)

Photos by Vor Yiu

交配中的藍綠象。
A mating pair of *Hypomeces squamosus* (Golden Dust Weevil)

Photos by George Ho

新發現 NEW FINDINGS

A new species of Earwig — *Challia hongkongensis* Ho & Nishikawa, 2009 香港瘤蝗

何維俊 George, Wai-chun Ho Email:georgehwc@hotmail.com

香港瘤蝗(雌)(飛鵝山)。
Female *Chalia hongkongensis* Ho & Nishikawa, 2009
Kowloon Peak *Photo by Wai-chu Ho*

In 2009, Ho, G.W.C. and Nishikawa, M described a new species of earwig from Hong Kong in the paper:

Ho, G.W.C. & Nishikawa, M. (2009). A new species of genus *Challia* Burr (Dermaptera: Pygidicranidae: Challinae) from Hong Kong and a new record of *Challia fletcheri* Burr from north Guangdong, China. Japanese Journal of Systematic Entomology, 15(2): 367-374.

In this paper, a new species of the genus *Challia* Burr from Hong Kong is described. This new species closely resembles the *C. gigantia* Nishikawa, 2006, but differ from forceps structure and genitalia morphology. Key to both species is summarized in the following table.

This paper also deals with *Challia fletcheri* Burr, 1904, which is recorded for the first time in Guangdong Province.

香港瘤蝗(雄)(大東山)。
Male *Challia hongkongensis* Ho & Nishikawa, 2009
Tai Tung Shan *Photo by Ho Wai-chu Ho*

Identification of C. *gigantia* Nishikawa, 2006 and C. *hongkongensis* Ho & Nishikawa, 2009

	Challia gigantia 大瘤蝗* Nishikawa, 2006	*Challia hongkongensis* 香港瘤蝗 Ho & Nishikawa, 2009
Length of body 體長	Bigger size, 21-22mm 體較大，21-22毫米	Smaller size, 14.7-15.5mm 體較細，14.7-15.5毫米
Coloration of Femora 股節的色澤	Entirely yellowish 幾乎全淡黃色	Two dark markings 有兩枚斑塊
Shape of forceps 尾鉸形狀	Slightly rounded at distal one-quarter 端部內側三分一的地方較彎	Straight inner margin of the distal two-third 端部內側三分二的地方較直
Shape of genitalia 生殖器形狀	Metaparamere long 陰莖基側突較長	Metaparamere relatively short 陰莖基側突較短
Distribution 分佈	Niaoning Province, China and Korea **中國遼寧省及韓國**	Hong Kong 香港

* Female is unknown

新發現　NEW FINDINGS

A newly recorded beetle family to Hong Kong— Coleoptera: Cupedidae 長扁甲科

饒戈 Vor Yiu　　Email:yiuvor@hkentsoc.org

According to Crowson, 1981, order Coleoptera is divided into 4 sub-orders, namely : Archostemata, Adephaga, Myxophaga and Polyphaga. Adephaga are mostly predatory, including tiger beetles, ground beetles and some water beetles. Polyphaga is the largest group, including rove beetles, leaf beetles, scarabs, weevils, etc.; Myxophaga is so far not known in Hong Kong. The first report of Archostemata in Hong Kong is by Marshall & Thornton, 1963, larvae of a species of *Micromalthus* (Family Micromalthidae) were found in tap water. Unfortunately, no adult was obtained.

上：長扁甲 *Tenomerga* sp.. 背面
Upper: Dorsal side of a *Tenomerga* sp.

下：長扁甲 *Tenomerga* sp.. 腹面
Lower: Ventral side of a *Tenomerga* sp.

Photo by Yiu Vor

On May 10, 2009, around mid-night, a reticulated beetle (the name is derived from the pattern of its elytra) flew into the dining room of the author's small house situated in a village near Kam Tin, New Territories. The place consists of small houses and abandoned farmlands, no habitat with considerable high biodiversity nearby. Another flew into the same dining room on May 19, 2009, also around mid-night. Both were probably attracted by light of the compact fluorescent lamps. Length of the 2 specimens are 12.5 mm and 14.5 mm respectively. This is probably the second record of Archostemata in Hong Kong. Larvae of reticulated beetles are believed to be wood-borers, typically living in fungus-infested wood.

The beetles belong to the genus *Tenomerga* Neboiss, 1984, under family Cupedidae. *Tenomerga* is characterized by bearing two pairs of conical tubercles on its head, one pair above base of antennae, the other posteriorly above eyes, a pair of elevations behind second pair of tubercles; with no antennal grooves; antenna long, filiform, usually dorso-ventrally flattened. Pronotum quadrate; posternum with moderately deep tarsal grooves along lateral and anterior margins. Each elytron usually bears nine rows of punctures, the tenth row presents only in basal quarter; scales present on most intervals, punctures distinct, outlines not obscured by scales.

According to Grebennikov , 2004, sub-order Archostemata contains 40 extant species arranged in five families.

1. Family Ommatidae Lawrence, 1982. Two genera and 6 species are known.
2. Family Crowsoniellidae Iablokoff-Khnzorian, 1983. Only one species — *Crowsoniella relicta* Pace, 1976, is known.
3. Family Micromalthidae Barber, 1913. Only one species — *Micromalthus debilis* LeConte, 1878, is known.
4. Family Cupedidae Laporte, 1836. 10 genera and 32 species are known (at least 2 added thereafter)
5. Family Jurodidae Ponomarenko, 1985 (= Sikhoteal-iniidae Lafer, 1996). Only one species — *Sikhotealinia zhiltzovae* Lafer, 1996, is known.

Being the most primitive beetle group, Archostemata also has rich paleontological history and a diverse extinct fauna (Grebennikov, 2004), containing 11 extinct families (Tan J.J. & Ren D., 2009).

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Marshall, A.T. & Thornton, I.W.B., 1963. *Micromalthus* (Coleoptera: Micromalthidae) in Hong Kong. Pacific insects, 5: 715–720

Tan Jingjing & Ren Dong, 2009. Mesozoic Archostematan Fauna from China. Science Press, Beijing, 347 pp.

長扁甲，頭和前胸 *Tenomerga* sp.. Head and prothorax

Photo by Yiu Vor

新發現 NEW FINDINGS

A new Longhorn Beetle to Hong Kong— Coleoptera: Cerambycidae 天牛科

饒戈 Vor Yiu Email:yiuvor@hkentsoc.org

A female *Nupserha kankauensis* (Schwarzer, 1925) 斜尾脊筒天牛 was recorded near the main waterfall of Ng Tung Chai Valley, on May 8, 2010. This genus is previously not known in Hong Kong. Superficially, it looks similar to its sister genus – *Obera*, especially *Obera nigriceps*. Hind femora of *Nupserha* reach the 3rd abdominal segment, while those of *Obera* only reach the 2nd segment (Fig.1). *Nupserha* is only about 10 mm long, but all specimens of the 3 species of *Obera* collected in Hong Kong are longer than 15 mm. Elytra of *Nupserha* is only 2.5 times as long as its head and prothorax; while elytra of *Obera* is more than 3 times as long as its head and prothorax (Fig 2).

The only local specimen is a female, 11 mm long. Body ocherous, surface clothed with pale-buff pubescence. Head, prothorax, basal and distal antennal segments, lateral margin of elytra, and apical two-thirds of last abdominal segment black; apices of middle antennal segments, tarsi, and hind tibiae pitchy black; posterior portions of elytral discs dull brown. Antennae one and one-sixth as long as body; head broader than prothorax, narrower than elytral bases. Prothorax distinctly broader than long. Elytra obliquely submarginate-truncate apically; surfaces of each in large part punctured in six regular rows. Male's prothorax is about as long as broad; elytra more strongly narrowed; antenna one and one-third as long as body.

N. kankauensis is also known in Hainan, Yunnan, Jiangxi and Taiwan.

Fig. 1
左 Left：*Nupserha kankauensis*
右 Right：*Obera nigriceps*
Photo by Yiu Vor

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Fig. 2
左 Left：*Nupserha kankauensis*
右 Right：*Obera nigriceps*
Photo by Yiu Vor

斜尾脊筒天牛 *Nupserha kankauensis*
Photo by Yiu Vor

REPORTS ON RECENT PUBLICATIONS IN OTHER JOURNALS BY HKES MEMBERS

Underwater oviposition by *Euphaea decorata* Selys in Hong Kong

Graham T. Reels Email:gtreels@gmail.com

Introduction

In recent years I have developed an interest in the oviposition habits of *Euphaea* – a damselfly genus in the family Euphaeidae. I have published two papers on the subject (Reels and Dow, 2006; Reels and Wilson, 2009). Here, I give a summary of those two papers, with particular emphasis on the common Hong Kong species, *Euphaea decorata* Selys.

The oriental genus *Euphaea* Selys contains about 31 species, of which the majority occur in southeast Asia, Indo-China or southern China. Records of oviposition behaviour by members of the genus are scarce in the published literature; indeed, it seems that ovipositing euphaeids are not commonly observed. Species of *Euphaea* typically inhabit clean, moderate to fast-flowing forest streams, and their robust larvae are found amongst coarse gravel, pebbles and cobbles on the stream bed, often in mid-channel, where the current is at its fastest. This presents adult females with a major problem: how to ensure their eggs are deposited within the larval habitat or as close to the larval habitat as possible?

Observations

[Reels and Dow, 2006] At 1243h on 8 June 2005, I was at 250m asl on the Ng Tung Chai stream when I saw a female *E. decorata* fly down to the water surface in the middle of the stream, in the lee of a large boulder where the current was much reduced, directly above a submerged aquatic macrophyte (*Acorus* sp.) with narrow, elongate leaves. The plant was rooted on rock at a depth of 10 cm, and the stream depth was approximately 20 cm. The submerged *Euphaea* slowly crawled down a leaf blade, to a depth of 10 cm. Complete submergence was achieved within 30 seconds. For 38 minutes the insect proceeded to crawl along several submerged leaf blades, repeatedly inserting its ovipositor into leaf tissue (Fig. 1). At 1321h, the insect ascended to the surface along a leaf blade, and floated on its side at the surface for 20 seconds (whilst retaining contact with the leaf blade), presumably to replenish its plastron, prior to descending again. The insect resumed underwater ovipositing amongst the leaves for a further 15 minutes. At 1336h the insect again crawled to the surface up a leaf blade and exposed its thorax to the air for five seconds. It then re-submerged and oviposited for a further six minutes. At 1342h, almost exactly one hour after its original descent, the female again ascended, floated at the surface for a period of 80 seconds (Fig. 2), and then took flight.

[Reels and Wilson, 2009] At 1035h on 23 July 2008, I was at 150m asl at a small stream at Hok Tau, when I observed a female *E. decorata* fly upstream slowly, about 5 cm above the water, until reaching a patch of semi-submerged *Acorus* in a cascade section. She then alighted on the semi-submerged leaves, clinging on against the fast current and commencing oviposition. The female was observed clambering over the intermittently submerged leaves and ovipositing for ca 10 minutes (Fig. 3), including three minutes when she was completely submerged beneath the leaves, before I had to move on.

Remarks

Completely submerged oviposition has been reported for many species of Zygoptera, in several families (Calopterygidae Euphaeidae, Lestidae, Coenagrionidae and Platycnemididae), while a single family, Aeshnidae, contains the very few representatives of Anisoptera which are known to oviposit underwater. It has been regarded as a behaviour restricted to species which oviposit endophytically, most frequently in standing water habitats, although Hawking et al. (2004) reported an observation of the Australian aeshnid *Notoaeschna sagittata* ovipositing on bare rock (the larval habitat), in a fast-flowing river whilst completely submerged. The benefit to the female of this dangerous behaviour is enhanced survivorship of her offspring, due to the placement of eggs at, or in close proximity to, the ultimate larval habitat. However, this benefit is achieved at the cost of higher risk of female mortality due to drowning (particularly in the fast currents favoured by *Euphaea*), or predation by aquatic organisms.

It is likely that underwater oviposition is a common behaviour amongst *Euphaea* species, because it is the only way by which the female can lay her eggs in or near to the larval habitat (mid-channel bottom of fast-flowing streams). Females of *Euphaea* spp. are very stout (Fig. 4). Their robust build undoubtedly helps several species within this genus to withstand the severe physical stresses encountered during oviposition in cascades and riffles, either from diving headlong into riffle sections and struggling against the current, or from exposure at torrential splash zone sites.

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Figure 2. Female *E. decorata* floating on water after spending one hour underwater at Ng Tung Chai stream

Photo by G. T. Reels

Figure 3. Female *E. decorata* ovipositing into *Acorus* leaf while semi-submerged in fast-flowing stream at Hok Tau *Photo by G. T. Reels*

Figure 1. *Euphaea decorata* female ovipositing into *Acorus* leaves while completely submerged at Ng Tung Chai stream *Photo by G. T. Reels*

Female *E. decorata* are strongly built to withstand the physical stresses of ovipositing in running water

Photo by G. T. Reels

觀察報告 OBSERVATION REPORT

Swarms of *Apis cerana* Fabricius (Hymenoptera, Apinae), a few observations

Christophe Barthélémy Email:chb99@netvigator.com

The wild Asian honey bee, *Apis cerana*, is a common resident of our countryside. It has been used by man for centuries to produce honey, and even today it is kept for this purpose by a few farms in the New Territories and even by some amateur backyard beekeepers.

I have, on many occasions, seen poachers steal combs from the wild for their high commercial value. Wild colonies can be found in a variety of places, always in cavities such as those in old walls or hollows in tree trunks, from which hundreds of workers can be seen going in and out on sunny days, producing a distinct loud buzz.

Like the other species in the genus, colony dispersion occurs through swarming. One of the newly emerging queens, upon being fertilized, manages to take over the "leading role", forcing the old queen to leave in search of a new abode with a retinue of faithful workers, forming the swarm. Meanwhile, in the old colony, the new queen will kill all remaining queens, including those yet to emerge from their pupal cells.

The swarm, generally comprising around half the original colony in terms of the number of individuals, will generally settle in a temporary place in the open, forming a live aggregation of bees suspended from high branches. Scouts are constantly sent out to find a suitable nesting site for the colony to settle down, but this may take some time, depending on various factors such as the weather and the ambient temperature.

In my village in Sai Kung Country Park, we have three resident live colonies that have been active for the last few years. Figure 1 indicates their locations. Colony A uses a cavity in the stone plinth of a large village house, Colony B is located in the roof of another village house and Colony C dwells within the hollow trunk of an old tree in the forest adjacent to the village. This year in February I witnessed three winter swarms which probably originated from these colonies.

On 19 February 2010, a swarm (A1) initiated by Colony A temporarily settled on a very low branch of a decorative bush, trapped by a spell of cool weather, allowing me to get up close and personal with it (Figure 2). By 23 February, it had moved to another location about 15m away (A2), and remained there till 26 February, upon which it left, presumably having found a suitable nesting site, seven days after it had formed.

I was able to approach this swarm closely; no adverse reaction was noted when I placed my hand less than 5cm away from it. When I prodded it with a small stick, nothing really happened either and I was able to introduce the stick right into the middle of the swarm, without having the bees rushing at me or latching onto the stick. While swarming bees are generally known to be relatively passive, they can nevertheless display aggressive reactions towards perceived threats and what I did should not be encouraged.

On 11 February 2010, a warm day with temperatures rising to 28°C by 2pm, I was intrigued by a loud buzzing noise, leading me to discover the formation of a swarm (B1) outside Colony B, where a frantic "cloud" of bees was coalescing. This "cloud" moved northwards, heading towards a Lychee tree (*Litchi chinensis*) and then bypassing it before turning back and finally retreating into the tree's high branches. Before and after the swarm took off, I noted intense fights happening at the threshold of Colony B, with bees grappling each other and falling to the ground locked in mortal combat. No less than 60 mutilated, wounded or dead workers were found. It is in fact likely that members of another colony were probably trying to take advantage of the fact that the colony had been reduced in size due to the swarming, and were attempting to take over the nesting site, resulting in aggressive and defensive behaviour from the original inhabitants.

By 12 February, the temperature fell to below 13°C at noon and the swarm got trapped in its location. Temperatures soon fell even further, reaching a minimum of 6°C by 17 February, a cold spell which was to last till 20 February. Little or no activity was noted from the swarm during this period, with no workers leaving or returning. With temperatures rising again, Swarm B1 moved from its temporary abode on 22 February, eleven days after it had formed, leaving behind a small comb, 110 mm high, 58 mm across and 16 mm thick (see Figure 4). This comb contained over 500 cells with 148 eggs. Nine cells contained two eggs; the supplementary eggs were laid by workers. To beekeepers, this is a sign of a weak colony, implying that the queen is unable to impose her status as the sole egg layer.

觀察報告 OBSERVATION REPORT

Swarm C1 was discovered by chance on 11 March 2010 when I was inspecting the damage done by poachers on the common *Aquilaria sinensis* (incense tree). I was able to determine which colony it came from. The swarm was located approximately 5m above ground level. When I left the village for a trip abroad on 28 March the swarm was still in the same location, but was gone upon my return on 11 April.

It is always a great delight to witness such activity, and to know that more colonies of these tireless workers will be founded, profiting all flowering plants and predators alike.

Fig. 3: Swarm A1, close up of the interface at attachment
Photo by Christophe Barthélémy

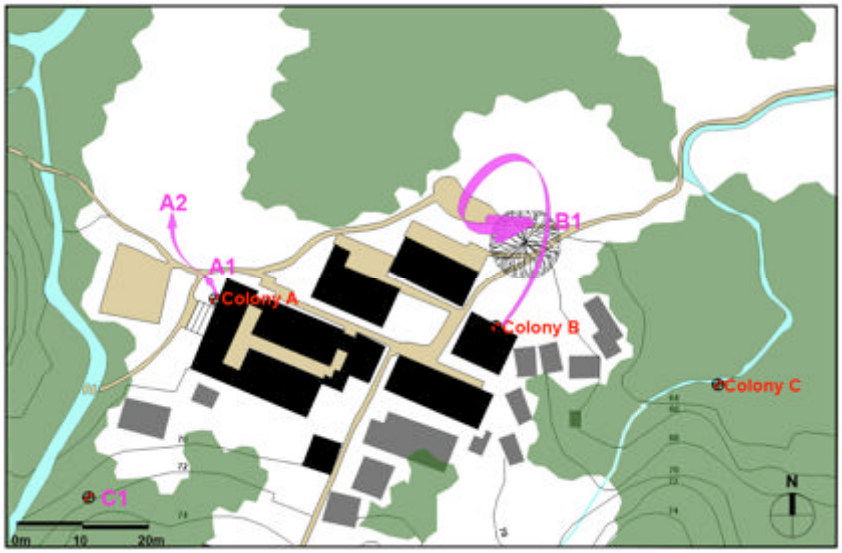
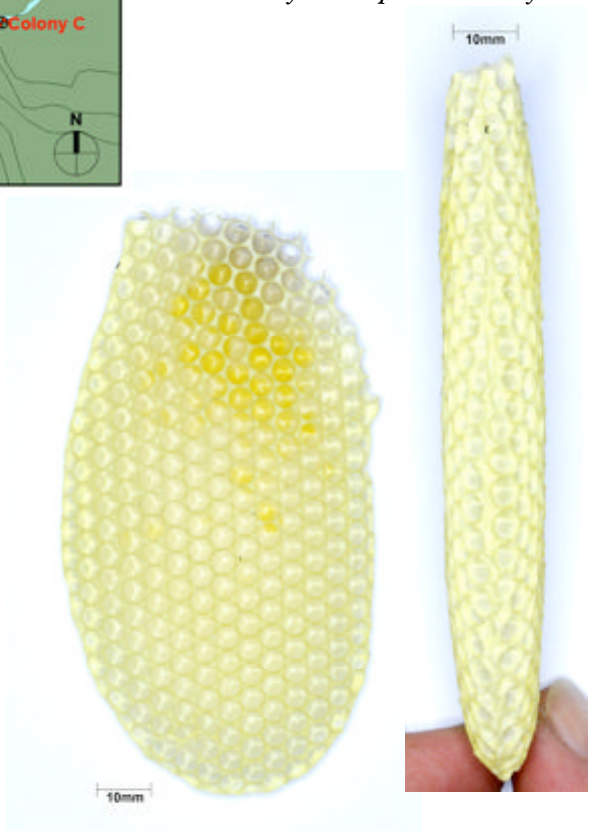


Fig. 1: Colony and Swarm locations

Fig. 2: Swarm A1
Photo by Christophe Barthélémy

Fig. 3: Embryo comb left behind by swarm B1
Photo by Christophe Barthélémy



進行中的研究 PRESENT RESEARCH

Documentation on the biology of some solitary Aculeata

Christophe Barthélémy Email:chb99@netvigator.com

I am continuing (started in 2006) my documentation on the biology of some solitary Aculeata by using nest traps. I have so far collected data on over 20 species, mainly of Sphecidae, Crabronidae and Eumeninae, and new species are being added yearly. It is a good method of observation, allowing qualitative and quantitative data pertaining to brood development, prey and parasites/nest associates to be gathered. Some of it will and has been published in the Society's Bulletin. In 20 years I will publish the sum of all this!

In addition, a resident Malaise trap in my garden has allowed me to sample the yearly Aculeata fauna since 2006. I have noted a worrying trend of decrease in numbers of Aculeates trapped and diversity of species in the past four years. However, more time will be required for affirmative conclusions.

徵稿 CALL FOR ARTICLES

Contributions are invited for the 2nd issue of the "INSECT NEWS", due for publication end of Jan 2011. We are looking for items corresponding to the following non-exclusive topics:

1. Accounts of interesting or unusual insect observations;
2. Photographs for a themed 'gallery', featuring high quality images illustrating. Photo gallery for the 2nd issue is **Insect feeding.**
3. Entries for the Newsletter cover photograph (selected from the gallery)
4. Reviews of new books on insects of the bioregion (Hong Kong, Macau, tropical southern China, Indochina);
5. List of recent publications on insects of the bioregion;
6. News of insect research (academic or amateur) being conducted locally
7. Requests for information by individuals interested in particular insect groups.
8. Summaries of recent papers published by Society members in other journals;
9. Reports on various Society activities;
10. List of new Society members;
11. Reports on insect recording schemes;
12. etc.

INSECT NEWS is an online, biannual newsletter (January and July) published by the Hong Kong Entomological Society (HKES). It is open to contributions from members and non-members alike. Articles could be written in English or in Chinese accompanied by English summary. Please send your article and photos to:yiuvor@hkentsoc.org