## Family: Pompilidae 蛛蜂科

Wasps in the Family Pompilidae have slender bodies with long slender legs. They are also known as spider wasps. Most of the species are dark but some are in bright color with smoky or yellowish wings. There are about 4,200 species worldwide, mostly in the tropics. Adults are usually seen on flowers or walking around on ground for predating. Spider wasps are so named because they paralyze spiders with their sting and lay eggs on them. The larvae hatched from the eggs feed on paralyzed spiders until pupation. Females sting painfully. Leptodialepis bipartitus (黃頭蛛蜂) has been found at Repulse Bay of the Hong Kong Island. (Figure 11)



Figure 11: Leptodialepis bipartitus (黃頭蛛蜂)



Members in the Family Scoliidae occur worldwide, with a total of around 300 species. The body size of the adults in this family ranges from 20 to 50 mm. They are solitary insect. The larvae are ectoparasitoids of the grubs of beetles, usually scarabaeid beetle larvae. The females burrow in the soil, often utilize the burrows made by grubs, to search for host grubs. When host grubs are found, the females paralyze the grubs and then construct a cell for laying eggs. *Scolia superciliaris sauteri* (Figure 12) and another *Scolia* species (Figure 13) have been found at Fanling and Yuen Long of the New-territories.



Figure 12: Scolia superciliaris sauteri (土蜂)



Figure 13: Scolia spp. (橙頭土蜂)

# Family: Sphecidae 泥蜂科

The Family Sphecidae includes more than 728 species worldwide. The body length ranges from 10 to 30mm. The abdomen of the wasp is long and stalked which gives the body "threadwaisted" appearance and the color of the body may be all black, black and red, yellow and black, or white and black. Most of the species of this family nest in the sparse ground or areas with no vegetation. Some species construct aerial nests which are made by mud. A few species may nest in hollow plant stems or abandoned bee burrows in logs. The larvae feed on the paralyzed bodies of various kinds of arthropods provided by adult wasps. The adults feed on nectar from flowers and body fluids of their preys. The following species have been found at Sai Kung and Causeway Bay.



Figure 14: Cercerini (節腹泥蜂族)





Figure 15: Isodontia nigella (黑等齒泥蜂)



Figure 16: Liris aurulentus (紅足脊小唇泥蜂)



Figure 17 : Nyssonini spp. (角胸泥蜂族)



Figure 18: Sceliphron deforme (駝腹壁泥蜂)



Figure 19: Sphex diabolicus (黃毛泥蜂)

# Family: Vespidae 胡蜂科

The hymenopteran family Vespidae consists of five subfamilies and includes nearly 5,000 species. The species in this family have different social behavior, from solitary to advanced eusocial (swarm-founding). Each social wasp colony comprises of a queen and a number of female worker wasps with various degrees of sterility relative to the queen. In temperate regions, colonies of some social species usually last for only one year, dying at the end of autumn or start of winter. New queens and males are produced towards the end of summer. After mating, the queens hibernate over winter in cracks, crevices or other sheltered locations. The nests of most species are built by mud, plant fibers or litter. The following species including Parapolybia indica indica (印度側 異腹胡蜂) have been found in both urban and rural areas including Tsuen Wan, Yuen Long, Tuen Mun of the New-territories, Kwun Tong and Sham Shui Po of Kowloon and Stanley of the Hong Kong Island.



Figure 20: Vespa affinis (大褐胡蜂)



Figure 21: Vespa bicolor (黑盾胡蜂)



Figure 22: Vespa ducalis (黑尾胡蜂)



Figure 23: Vespa velutina nigrithorax (墨胸胡蜂)





Figure 24 : *Polistes gigas* (棕馬蜂)



Figure 25: *Polistes olivaceus* (果馬蜂)



Figure 26 : *Polistes sagittarius* (黃裙馬蜂)



Figure 27 : *Polistes stigma* (點馬蜂)



Figure 28: Parapolybia indica indica (印度側異腹胡蜂)



Figure 29: Parapolybia nodosa (叉胸異腹胡蜂)

## Family: Chalcididae 小蜂科

The characteristics of Family Chalcididae are stout with curved hind femora and tibiae. They are in black color, sometimes yellow and with no obvious external ovipositor. They usually are parasite of the pupae of Lepidoptera and some large species (~10mm long) can be reared from pupae of local emperor moth (Saturniidae). The wasp has been found at Sai Kung.

Photos of this Sub-family is not available.



Some precautions could be taken to reduce the chance of being stung by wasps.

- a. Do not disturb wasps and more importantly, wasp nests.

  Any disturbance may provoke stinging
- b. Do not leave food and drink uncovered, especially ripe fruit and soft drinks. Sugary substances may attract many wasps
- c. Keep refuse in tightly sealed containers
- d. Avoid walking barefoot on grassy field
- e. Avoid getting close to wasp nests
- f. Avoid using perfume or scented soaps, and avoid wearing brightly coloured or patterned clothing for outdoor activities as they attract insects
- g. Avoid being stung on the head, mouth and throat by, for instance, pulling a portion of your clothes over your head
- h. Remain calm and move slowly away from wasps when being approached by them. Be sure that you can see where you are going. The insect will eventually leave of its own accord
- i. Seek medical treatment after being stung by wasps

Thinning of trees and turning the top layer of soil in flowerbeds in your premises regularly will discourage wasps from building



nests on the trees or in the soil. Planting of vegetation with non-juicy fruits will also reduce the attraction of wasps to your premises.

Not leaving sugary food and drink uncovered in an open area will avoid attracting wasps. Regular inspection of the garden and open areas of your premises would facilitate early detection of wasp nests. It is usually easy to destroy the nests at their early stage when they contain only a few wasps.

#### Control method

We should not kill wasps purposely unless we could not evade the harms or threats posed by the insect. Destruction of wasp nests requires professional knowledge and experience.

Inappropriate procedures and improper protective clothing may lead to stinging by wasps. Pest control operators should be invited for conducting wasp disinfestations work. However, household ready-to-use aerosol knockdown insecticides can be used against individual wasps.



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