

BlueBottleFlies



Blue Bottle Fly Larva.

Because they are the first insects to arrive after an animal dies, the larvae can help determine the time of death in murder cases.

In Phoenix, Arizona, Anthony Spears was convicted of murdering Jeanette Beaulieu and dumping her body in the desert. He maintained his innocence. Now, some eight years later, friends of his wife, Janet, hired Dr. David Faulkner, a forensic entomologist, to look into the case. Based on the decomposition of her body, a medical examiner at the earlier trial had put the murder date as 4 January. Examining the flesh-eating larvae found crushed and preserved in Beaulieu's clothing and stored in the freezer, Dr. Faulkner says the date of death is more likely between 10 and 12 January. Spears was at home near San Diego on those dates. The case has been reopened.

Surprise, surprise. This pest can be useful!

Blue bottle flies belong to the genera *Cynomyopsis* and *Calliphora*. In Singapore the common species is *Chrysomya megacephala*, which takes 11 to 20 days to develop from egg to adult. The female can live up to 75 days and lays up to 700 eggs in her lifetime.

The common name of "bottle" probably comes from "bot" which is an old (probably of Dutch origin) name for maggot, thus bottle would mean a little maggot.

Sometimes the female lays eggs in the nostrils of live animals, causing the hosts severe irritation so much so that they blow out, hence the other common name "Blow flies".

They are scavengers and carry pathogens on their sponging mouthparts and on their body and legs. Because they also feed on excrement they are known to spread dysentery. The adults make an audible buzzing sound. Their sudden appearance in large numbers indicates the presence of dead animals in the close vicinity.

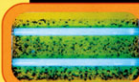
Adults are large flies (10 mm long) with a metallic blue abdomen, greyish thorax and large red eyes. They frequent slaughterhouses, meat-processing plants and garbage dumps. Eggs are laid on meat or dead animals and if meat is not available, decaying vegetable materials. Newly hatched larvae feed on the surface for a short time before burrowing into the less decayed materials. The matured larvae leave the food materials and burrow into the ground to pupate.



Blue Bottle Flies are phototropic (i.e. they move towards light) which explains why ultra-violet light (UVL) traps are employed to exploit this characteristic.



The Aardwolf Fly-Catcher (AFC) looks like a decorative wall light but its blue glow, combined with the fluorescent colour trapping-pad



..... creates a very efficient insect lure, an irresistible attraction.



The catch includes blue bottle flies, flesh flies (*Boettcherisca peregrina*), houseflies (*Musca domestica*) and humpbacked flies (*Megaselia* species). The trapped flies will hint at the possible sources of infestation that can then be inspected and treated.



A food or pharmaceutical factory upgrading its standards to include the Hazard Analysis Critical Control Point (HACCP) programme, will require the UVL tubes to be shatter-proof (the bottom tube in this picture). The ordinary tubes when cracked will explode into many tiny pieces (the top tube), creating high risks.

They are known to deposit eggs into wounds of animals and people, resulting in a condition called myiasis (i.e. the invading and consuming of living tissues by fly larvae).

"Surgical maggots" are larvae that actually help clean infected wounds and promote healing. In his book "Fascinating Insects of Southeast Asia" L. E. O. Braccé describes how the larvae of the genus *Calliphora* secrete antibiotic substances, which assist in healing wounds. In the past Surgeons tending soldiers during wars deliberately placed such larvae in festering wounds to clear up infection, thus saving many lives. With the discovery of modern antibiotics this practice virtually stopped. Most of us will react with a "Yuks", but if you happen to be allergic to antibiotics, you may just say "Yes!"