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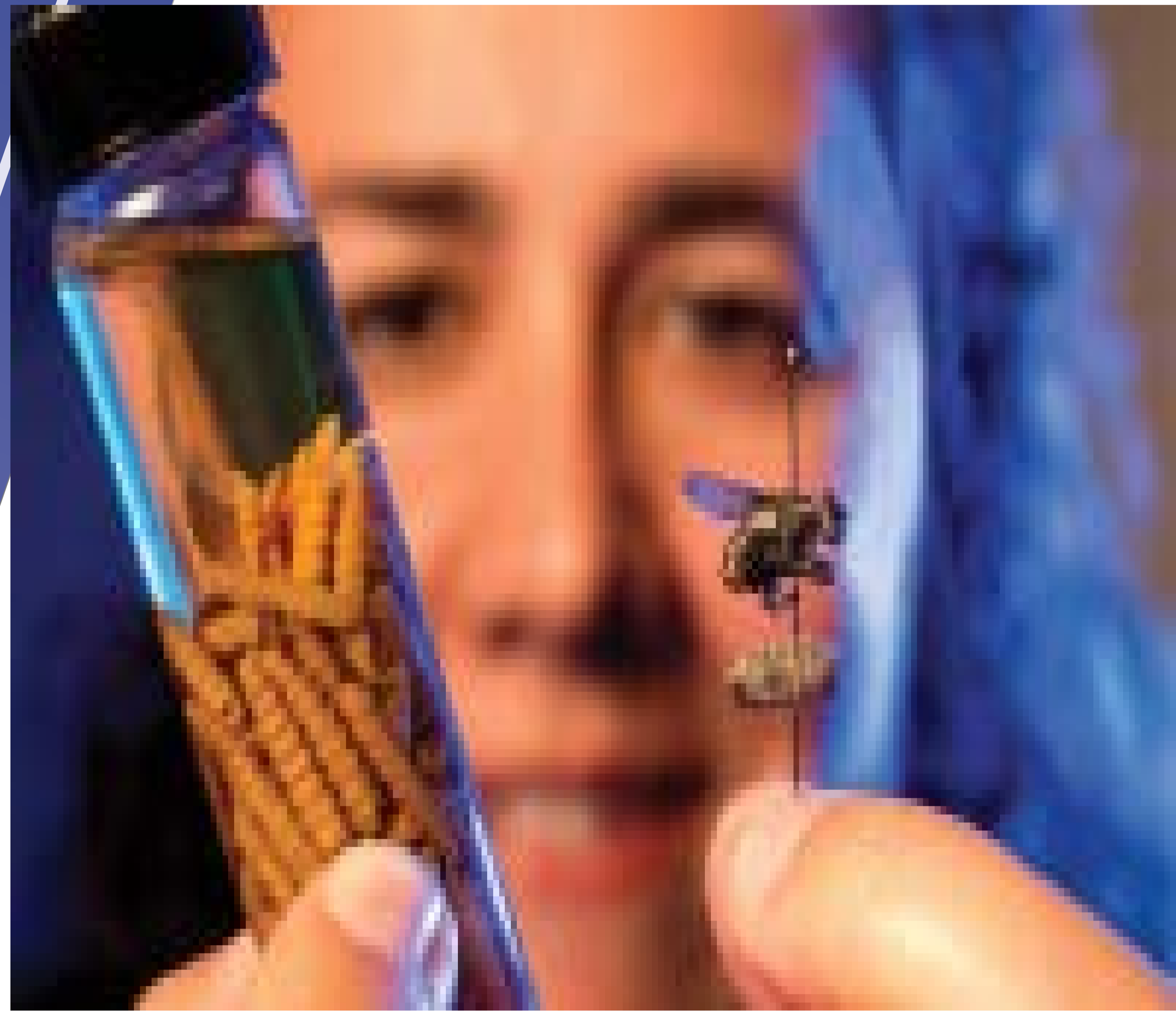
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# HOW INSECTS REVEAL THE TIME OF THE DEATH OF A CORPSE



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When a suspicious death occurs, forensic entomologists are called to assist the crime scene. It is because of the presence of insects in the crime scene, especially the insects present near the corpse. Insects have the ability to reveal information about a corpse's time of death.

Insects are one of the major clues present in the crime scene. It is because insects colonize the corpse in a predictable sequence, also known as insect succession. The very first to arrive on the corpse are necrophagous because of the strong scent of decomposition. Then comes blowflies and flesh flies, as they can invade a corpse within a minute after the death. Soon after the death, approx. 30 minutes after, other insects, including house flies, dermestid beetles, and other predatory and parasitic insects, arrive to feed on the mag gots and beetle larvae. Eventually, as the corpse dries, hide beetles and cloth moths find the remains.

Here comes the role of forensic entomologists; they collect the samples from the corpse including fresh and latest representatives of each and every species. It's because the development of arthropods is linked directly to the temperature that they also gather daily temperature data from the nearest available weather station.

In the lab, the scientists try to identify each insect to their species and determine their exact developmental stage.

If it is not possible, they raise some of the maggots to adulthood to confirm their species. Blowflies and flesh flies are the most useful insect species for determining the Post-Mortem Interval (PMI) or time of death.

Through lab studies, scientists have determined the developmental rates of necrophagous species based on the constant temperature in the lab environment. These databases provide entomologists with a measurement called Accumulated Degree Day (ADD). ADD represents physiological time.

Using the known ADD, it is easy to calculate the age of the specimen from the corpse. Working backwards through physiological time, a forensic entomologist can provide investigators with a specific time period when the body was first colonized by these insects.

Since these insects find the corpse within a minute or half an hour, they reveal the almost exact time of death or PMI.

#### **REFERENCE:**

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