

Mating of Flies

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The lifespan of a common house fly is between 15-30 days. Once a male fly emerges from the pupa it takes no more than 16 hours to mature sexually and for a female it is 24 hours. A female fly usually mates once in a lifetime whereas the male fly is polygamous in nature.

Preferences of Ideal Partners

A very interesting fact about male flies is they opt to mate a virgin fly preferably larger and sexually mature enough for copulation. One common observation confirms that a male fly prefers female partners who are usually seven days old and also a virgin.

The other typical physical preference exhibited by male fly is, it prefers partner who is longer in size. Whereas a female fly chooses a heavier mating partner over a light one.

In case the strike occurs in the midair the pair immediately locates any surface and rests on it. However, the couple can fly off to another location if they are disturbed during copulation maintaining the same position.

Courtship

Courtship among flies is usually initiated by a male member that involves numerous stereotypical behavioural patterns. The male fly has to go through an elaborate ritual to

finally convince and mate his desired partner.

The prime sensation that initiates or trigger the courtship behaviour in a male fly is vision. As soon as a male fly detects a partner it adopts typical orientation



Fig. 1. Copulating house flies

behaviours, to begin with it turns towards the female fly and starts chasing it. During this particular phase the male fly continues to flap and shake its wings and wag its body. These series of body languages are observed during the day time or presence of light when visibility is prominent.

Absence of sufficient amount of light makes the above mentioned behaviours impossible. Therefore, a male fly has to adapt other behavioural pattern like olfaction. However, it works only at short distance. Therefore, during dark a male fly has to double its physical labour to detect a female fly for copulation.

Mating

Like every other living species, even in flies the touch sensation plays a crucial role in initiating the mating process. The first attempt that a male fly establishes is to touch the body of the partner with its foreleg. This is called tapping. Tapping is the first physical contact that helps the fly to not only attract its counterpart but at times also helps in determining the species and sex of the fly.

There is no definite direction from which a male fly makes his approach towards his chosen one. In fact, the attempt can be from any direction, i.e., from either side, head or rear end. The male fly usually "strike" (jump) upon a female one either in flight, during a resting position or while the counterpart is walking on a surface.

The mating of the common house flies begins with a male fly bumping into a female one called "striking". One single "strike" can last between 1-10 seconds which may occur either in midair or on any surface. However, if the female fly is not receptive the male fly flies away only after a few unsuccessful attempts of genital contact.

If the male fly is able to tap on a female and the gustatory organ on the foreleg can sense the female sex pheromones, the courtship is immediately taken to the next level, i.e., wing vibration. Vibration or flickering of the wings produces a species specific unique courting song. The quality of the "courting song" determines the possibility or chances of luring a desired mating partner.

Once the "strike" is successful and the male fly is able to gain the desired position between the wings of the female fly it then goes on to the next stage i.e.,

extending of its proboscis and licking of the female genitalia. The male fly then grabs the body of its partner with the forelegs and curl the tip of its abdomen. In case the female fly is receptive and approves of mating it spreads her wings thus allowing the male fly to mount. The final approval of the female fly confirms the initiation of the mating process. The female fly then pushes her ovipositor into the male genital opening thus initiating the mating process.

It takes several attempts from a male fly to finally convince a female fly to approve and accept the mounting. The couple continues to be in the mounting position between 10-20minutes during when the male fly ejaculates the seminal fluid in his partner. The female fly mates only once in its life time.

In contrary to male flies, the female flies mate once in a lifetime. The female fly lays egg on decaying matters like carrion, feces or food waste. The number of eggs laid can be around 100 per batch. She can continue to lay as many as 500 eggs in her lifetime.

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