RJVS Research Journal of Veterinary Sciences

OPEN ACCESS

News & Comments

Fungus on Zombie Flies Lures Healthy Males to Mate with Corpses

Jenson Easo

According to scientists, a certain fungus uses chemicals to trick male flies into mating with dead females infected with the fungus. Researchers discovered that Entomophthora muscae can spread summit disease to other insects, primarily house flies. A female victim is infected by airborne spores that penetrate her skin. Her brain and nervous system were soon invaded by them. Females are prompted to climb a leaf on a tree due to chemicals produced by the spores. Her wings open, then she dies. While she is covered in cannons filled with spores, the fungus surrounds her body. One day, a male finds her, and when he touches her body, the cannons fire, infecting everyone around her with their spores.

Several infected and non-infected flies were captured in the lab by the researchers. Infected females were given the choice of mating with infected males, and more often than not, males chose the infected female. Therefore, even though the infected female was dead, the fungus made her more attractive to the male. House flies, including houseflies, are known to attract a wide variety of insects, including house flies, by emitting volatile compounds known as sesquiterpenes.

According to the tests, female fly corpses that had been dead for 3-8 hours attracted 15 percent of male flies, but that figure rose to 73 percent for corpses that had been dead for 25-30 hours. Chemochemical signals increased as time passed.

Sesquiterpenes have been used to attract insects for a long time. These tiny creatures seem to respond well to chemical signals as well.

Among the many research opportunities here is the development of effective fly repellents - flies can transmit various diseases to humans, and sesquiterpenes can be used to lure them from areas where food is being prepared, for example. It may be possible to use the Entomophthora muscae fungus in this situation, says Dr. De Fine Licht. Using these same fungal scents to attract healthy males to a fly trap instead of a corpse might be effective biological pest control.

KEYWORDS

Ecology, fungi, fungal pathogens, evolutionary ecology, life sciences, pathogens, insects, organismal biology, parasites, Entomophthora, Chemochemical signals, female fly corpses, fly corpses, fungus, summit disease, research, sesquiterpenes