



An eldritch anecdote of death's-head hawkmoth from *The Silence of the Lambs*

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The Silence of the Lambs (1991) is an American psychological horror film that was reconstructed from a 1988 novel by Thomas Harris. The film was directed by Jonathan Demme and written by Ted Tally, starring Anthony Hopkins, Jodie Foster, and Ted Levine. It tells the story of a young FBI rookie, Clarice Starling. After her training days are spent at the FBI academy in Quantico, Virginia, the head of the Bureau's Behavioral Science Unit, Jack Crawford, assigned her to interview Dr Hannibal Lecter, who is a former psychiatrist and incarcerated cannibalistic killer. Meanwhile, the character "Buffalo Bill", who is a psychopath serial killer, has already killed five women and removed the skin from their bodies. Buffalo Bill had been chased by Crawford and her team for a while but no progress had been made until Clarice started interviewing Hannibal Lecter.

The purpose of interviewing Dr Lecter was to obtain insights that might help in pursuit of Buffalo Bill. While interviewing Dr Lecter, Clarice already realized that in order to gather any insight from him, she had to go along with his mind games: Dr Lecter agrees to make some statements about the serial killer only if she tells him about her past. During the course of these events, Buffalo Bill kills his sixth victim and this time he leaves a calling card, which was a rare death's-head hawkmoth. The killer placed this calling card in the throat of his victim. That was the time when this case took a major turn, based on the analysis of Buffalo Bill's case made by Dr Lecter and



Movie poster. Image extracted from IMDb.

the evidence in the form of a calling card. Clarice and the FBI make a move to look for the seventh victim of Buffalo Bill. During the pursuit of the killer, Dr Lecter escapes from custody. Later, Clarice traces the location of Buffalo Bill and kills the serial killer in a shootout. The movie ends when Clarice graduates from the Academy and receives a cryptic phone call from Dr Lecter during the graduation day ceremony.



Acherontia atropos, the death's-head hawkmoth. Image extracted and modified from Wikimedia Commons (D. Descouens, 2021; Collection of Laurent Schwartz, MHNT.CUT.2011.0.165).

THE DEATH'S-HEAD HAWKMOTH

Taxonomic classification

Kingdom: Animalia

Phylum: Arthropoda

Class: Insecta

Order: Lepidoptera

Family: Sphingidae

Genus: *Acherontia* Laspeyres, 1809

Species: *Acherontia atropos* (Linnaeus, 1758)

The death's-head hawkmoth (*Acherontia atropos*) belongs to the family Sphingidae of the order Lepidoptera. Sphingidae, is a polyonymous family, that is, known by many names like hawkmoths, sphinx moths, hummingbird moths, while their caterpillars are known as hornworms (Capinera, 2008). These moths are commonly identified by their sleek-looking body with narrow forewings and shorter hindwings.

The characteristic morphological feature of the death's-head hawkmoth is the vaguely skull-shaped pattern ornamenting the thorax. This unique imprint on the thorax bestowed this moth species both its scientific name as well as its common name. The species inhabits Southern Europe, Middle East and most of Africa (Robischon, 2019). Members of the genus *Acherontia* demonstrate a unique behavioral defense when alarmed: the adult moths squeak by producing a loud chirp from their pharynx. This behavior is very unique because most of the moths from other families and insects from other orders produce sounds by rubbing their external body parts (Brehm et al., 2015).

The name *Acherontia atropos* is associated with death and 'dark' subjects. The genus *Acherontia* is named after the River Acheron in Greece, and the name Acheron directly refers to the underworld (Britannica, 2018). The species name '*atropos*' is associated with death, as Atropos, the Greek goddess of fate and destiny, is the one who cuts the thread of humans' lives (Greek Mythology, 2015). Thus, in many places, *Acherontia* moths are considered as omens of death.



Alternative poster. Image extracted from IMDb.

FILMMAKING & INSECT SCIENCE

Science-based movies play an important role in bringing scientific awareness to the general public, making people comprehend the importance of science which is an integral – but sometimes imperceptible – part of our daily lives. Insects are the most thriving animals ever to colonize the terrestrial environment. From our homes to the streets, towns, cities, countryside, forests, and to ponds and streams – insects are everywhere. Apart from pollinating 80% of the global crops (Riyaz et al., 2018), many insects are directly or indirectly helping the restoration and remediation of our ecosystems (Crespo-Pérez et al., 2020). Moths, like bees, flies and butterflies, also take part in pollinating flowering plants. Besides pollination, moths are part of the diet of many birds, lizards, spiders and a whole range of other animals, making them an extremely important part of our ecosystems and remarkable creatures in the animal kingdom. However, with the increasing population, climate change and other human activities, the populations of insects are gradually

decreasing (Sánchez-Bayo & Wyckhuys, 2019), which is an alarming issue.

So, films should not just explain their science, but also be able to promote scientific disposition and curiosity in the public. The misrepresentation of science in movies should stop, as it might increase public mistrust in science. Films could instead be more mindful and promote science, including conservation and management of biodiversity, stimulating viewers to embrace science in their everyday lives.

CONCLUSION

The caterpillars (larvae) of several moth species feed on the leaves of many species of plants for their survival. As the larvae transform into pupae or chrysalides, they start to develop and grow to later emerge as adult moths. This transformation needs a lot of energy, so that is why larvae have to store that from their food. The caterpillars of moths are equipped with biting and chewing mouthparts while adults typically have the long proboscis for sucking nectar from flowers. The *Silence of the Lambs* is a film that focuses on base identity and transformation. Dr Hannibal Lecter, in a scene that didn't age quite well, succinctly summed up how Buffalo Bill's moth ties into his psychosis of transformation and change (Orquiola, 2021).

The Silence of the Lambs is an extraordinary masterpiece that won all the major Academy awards, from Best Director and Best Picture to Best Actor, Best Actress, and Best Adapted Screenplay. It makes into the list of most awarded movies in the history of cinema. Apart from its appearance as a calling card and key evidence in that film, the death's-head hawkmoth was also featured many times in other films and literary works, like *Dracula* by Bram Stoker (1897) and *Un Chien Andalou* (Les Grands Films Classiques, 1929). In many of those cases, the moth is also used as a symbol of death.

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ACKNOWLEDGEMENTS

I would like to thank Wikimedia for providing free access to its content and the team of the Journal of Geek Studies. I would also like to thank the Entomology Research Institute, Loyola College, Chennai, Tamil Nadu, India, for extended support and guidance.

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Muzafar Riyaz is a budding Research Scientist in Entomology, whose research focuses on the molecular phylogenetics, Mitogenomics, next-generation sequencing (NGS), taxonomy, and biodiversity of moths. He is also engaged in conservation and management of Insects. *The Silence of the Lambs* is one of his favorite movies.