



### H34 Calliphoridae of Forensic Importance of Campeche, Mexico

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**Learning Overview:** The goal of this presentation is to help attendees better understand the diversity of species of Calliphorids of forensic importance in Campeche, Mexico.

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by providing data not previously generated in Mexico.

The objective of this study is to know the diversity of species of Calliphorids that can be found in the locality of Campeche, Mexico, with the purpose of this information forming part of a national database as part of a larger project of georeferencing and seasonality of insects of forensic importance in Mexico. This database will serve as a reference for forensic investigators, experts, scientific researchers, or students since, in Mexico, forensic entomology is little known and therefore little applied in the legal system. One of the basic needs for the development and implementation of forensic entomology in the country is that the presence, distribution, and seasonality of the insect species that may be involved in a forensic case must be known. Knowing the presence or absence of these insects at different seasons of the year can help to establish the season in which the death occurred; knowing the distribution of insects can help in investigations that involve relocation of corpses, origin of some drugs, location of a suspect in the scene, and locating where a vehicle has traveled, among others.

The site that was chosen to conduct the insect collection is the town of Pucnachen in the state of Campeche, located in southeast Mexico. This region has an altitude of 5 meters above sea level, the soils are rocky with little organic matter, has a semi-flat surface, and few elevations that reach 2.5 meters in height. Its climate is mostly warm-subhumid and rainy during the summer. The average annual temperature is 27.1°C and has vegetation belonging to the low deciduous forest.

The insect collection took place in March and April. Six traps baited with pork and alcohol as a method of preservation of insects were used. The traps were placed on trees at a height of 2 meters to prevent other scavengers, such as dogs, from destroying them and were separated at a distance of 30 meters. The traps were monitored every week for eight weeks. All collected insects were transferred to the laboratory for identification and preservation. Currently, this work is in development, so results are preliminary, and the collection work will be replicated in other seasons. The information generated will be part of the database for future reference.

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#### **Forensic Entomology, Pucnachen, Calliphoridae**