

Entomology 101 - Insects and People

Forensic Entomology

Why forensic entomology?

Dead organic matter = carrion = corpse

What is forensic entomology?

1. Medicolegal
2. Urban
3. Stored product pests

Why entomological evidence is not used more often

1. Lack of training of investigators
2. Reliability
3. Lack of forensic entomologists

A little history

1235 AD – Sung tz'u, Chinese death investigator

1668 - Francesco Redi – “spontaneous generation”

1883-1898 – J.P. Megnin – “La Faune des Cadaves”

What can faunal evidence show?

1. Post Mortem Interval (PMI)
2. Movement of corpse
3. Antemortem conditions
4. Durability

Corpse decomposition and corpse faunal phases

1. Phases of decomposition
2. Successional faunal waves
3. Antemortem parasites

Gathering faunal evidence

1. At the discovery site (disappearing evidence)
2. On autopsy
3. Delayed recovery and artifacts
4. Comparative material

Supplemental Evidence

1. Weather history at site
2. Topography, exposure, site description, etc.
3. When last seen and when discovered

Analysis of Faunal Evidence

1. Age determination of fauna

2. Influences of site, of maggot mass, of scavengers
3. Regional and seasonal occurrence of fauna

Complications

1. When was corpse accessible?
2. Weather and setting (exposure, enclosed, floating)
3. Was corpse disturbed?
4. How was corpse handled after discovery?
5. When were insects collected?