
NATURAL AND SYNTHETIC DRUG ANALYSIS IN BLOWFLY LARVAE AND PIG TISSUE

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Blowfly larvae (*Diptera: Calliphoridae*) has long been used in connection with human death. While most commonly used as a mechanism to determine time since death, blowfly larvae have come to be a part of drug analysis in human remains. This study investigates the presence of drugs, both natural and synthetic, in pig tissues which are consumed by blowfly larvae. The classes of drugs examined in this study include opiates, psychoactives, NSAIDs, and stimulants. These active ingredients will be extracted from natural and synthetic sources and injected into pig tissue. Blowfly larvae will then be exposed to the tissue, allowed to feed, and treated with chemical digestion to extract the active ingredients. The GC-MS will determine if there is any difference in compounds digested by the larvae when comparing the natural and synthetic sources. This study may allow forensic scientists to differentiate between natural and synthetic drug sources in remains based on blowfly larvae subjected to drug analyses.