



### **D21 The Cops Collected the Bugs in This Abuse Case — Hooray!**

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After attending this presentation, attendees will learn the importance of insect collection, what additional information can be concluded from those insect identifications during a child abuse investigation, and how, from these facts, a jury was able to view the conclusive evidence and render a guilty verdict against the child abuser.

This presentation will impact the forensic science community by increasing understanding of why and how to collect entomological evidence, and the importance of collecting and presenting that evidence in court, which will lead to increased convictions in wrongful abuse cases.

The use of insect evidence to determine the Postmortem Interval (PMI) and answer other questions surrounding a death scene has been in common use in hundreds of case investigations for over two decades around the globe. With this increased use, court appearances by forensic entomologists have been increasingly beneficial to the courts. However, even with this greater recognition of its use, in many jurisdictions across the country there is still an unwillingness to recognize the importance of the entomological evidence, resulting in failure to collect forensically important specimens. The use of entomological evidence may even be declining in these death scene investigations. Whether this is due to the economic environment at this particular time because of lack of funding for training or the perception that expert analysis is cost prohibitive, the truth may lie in this philosophy being “penny wise and dollar foolish.” If only the investigators would have collected the insect evidence, one could have had the means to answer some of these most important questions.

In a case from Marion, Indiana, officers were dispatched to a dwelling where filthy living conditions were reported to meet with Child Protective Services (CPS) personnel. Even before entry into the house, many cockroaches were observed crawling on the outside of the front door as the investigative team entered. Once inside, cockroaches were observed everywhere including on the carpet, clothes, trash bags, freezer, refrigerator, stove, kitchen sink, panty shelves, walls, beds, and even the ceiling. Two baby beds had cockroaches crawling on them in addition to numerous house flies. There were five small children living in this “home,” including: a six-year-old boy, a four-year-old boy, a three-year-old girl, a two-year-old boy with special needs, and a one-year-old girl. On initial contact with the children, the 2-year-old was unresponsive and thought to be dead. The children were taken to the local hospital for an examination of their injuries. The three younger children had lesions consistent with cockroach feeding wounds, which were photographed. The two older boys had scars which could have originated from this type of injury. Photographs of the 2-year-old boy were taken to show adult house flies feeding on seeping head wounds, likely from the cockroach feeding. Upon further examination once the diapers were removed, insect fly larvae were discovered in and around the anus. The police officers recognized the importance of these specimens and collected them for further examination and identification. The mother, who was pregnant with her sixth child, and the live-in boyfriend were transported to jail for questioning. There were excellent photographs of the adult flies and cockroaches as well as actual specimens of the fly larvae which were identified as the house fly (*Musca domestica*). Two days before Thanksgiving, the boyfriend was tried first and compelling evidence and testimony was provided by the CPS witnesses, the police investigators, the forensic entomologist, and even the 6-year-old boy. The mother’s attorney was present for this trial and, after seeing the testimony against his client, realized there was no way he was going to trial and a plea agreement was reached. Within a week of the children being removed from these terrible conditions, every one of them began to thrive, gaining weight, and showing major improvements to their health. The police and CPS investigators provided the means for additional testimony by taking detailed photos and collecting the larvae so the specific species identification could be accomplished. A conviction was reached for the boyfriend and, since it was his third felony, a 25-year sentence was imposed. The defense attorney said, “We were holding our own until the kid got on the stand, but that killed us.” Also, the jury was given a lesson on house fly biology and reminded that, “when they were at the picnic at the park, that little house fly crawling across their potato salad may have just come from a dog pile a few feet away.”

#### **Forensic Entomology, Cockroaches, House Fly**