G53 Inter-Observer Variability in EntomologyBased PMI Estimates: A Single Blind Study

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Attendees will develop an understanding of the variability in current techniques used to estimate the postmortem interval based on entomological evidence. The primary goal of this presentation is to open a dialogue within the forensic entomology community regarding the development of uniform protocols.

This presentation will impact the forensic community and/or humanity by demonstrating a need within the forensic entomology community to standardize its methods and practices.

Although reports of the utility of arthropods in forensic investigation date as early as 1235 AD, the field of forensic entomology remains in its adolescence, with many avenues of basic research largely unexplored. In particular, the method by which the postmortem interval (PMI) is estimated, one of the most important applied methods in forensic entomology, remains a highly controversial and problematic process. Indeed, it would seem that there might be as many such methods as there are forensic entomologists. Herein the authors acknowledge the need for standardization of this process within the community, investigate the variation in methods employed by forensic entomologists in a single-blind study, and suggest elements of a uniform protocol. Accordingly, a simulated crime scene was arranged in which fresh human remains were exposed to insects at the outdoor decomposition facility operated by the University of California, Davis, Institute for Medicolegal and Surgical Sciences (IMSS). Following an undisclosed period of exposure (herein referred to as the PMI), researchers sampled insects from the remains, recorded typical crime scene and meteorological data, and photographed and videotaped the scene and data collection efforts. Copies of all materials were sebt to a number of practicing forensic entomologists in North America who had previously agreed to participate and render a PMI estimate. The degree to which these estimates vary and bracket the actual PMI will be discussed.

Forensic Entomology, Postmortem Interval, Standards

 ** Presenting Author*