ADVANCES IN THE FIELD AND LABORATORY DETECTION OF LIVE SCENT AND HUMAN REMAINS: FROM THE CRIME SCENE TO THE COURTROOM

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This work describes recent studies identifying and quantifying the chemicals used to detect live human scent and human remains for biological and electronic detectors. Methods employed include dynamic headspace concentration as well as SPME and GC/MS to identify the dominant volatile organic compounds available for living and deceased humans as well as other animals. The Scent Transfer Unit (STU-100) was optimized for the collection of human scent samples as well as the concentration of human remains volatiles. The living human samples showed great variation between samples in contrast to the deceased human samples which were statistically more similar to one another. The results of the comparisons of the odor from living human, human remains and animal remains are consistent with the capabilities of trained HRD canines. The STU-100 proved to be a useful field instrument for identifying human remains VOCs and also for the preparation canine training aids.