

## General Section - 2010

## D16 Insect Succession Model for Southeast Texas in Early Spring

Jeffrey D. Kelly, MS\*, 2821 Marbella Lane, Dallas, TX 75228; Natalie Lindgrin, BS, Sam Houston State University Department of Biological Sciences, Box 2116, Huntsville, TX 77341; Alan Archambeault, BS, Sam Houston State University Department of Biology, Box 2113, Huntsville, TX 77341; Sibyl Bucheli, PhD, Sam Houston State University Department of Biological Sciences, Box 2116, Huntsville, TX 77341; and Joan A. Bytheway, PhD, Sam Houston State University, Chemistry & Forensic Science Building, 1003 Bowers Boulevard, Box 2525, Huntsville, TX 77340

After attending this presentation, attendees will be briefed on the first controlled human decomposition study for the Piney Woods biogeoclimatic zone which incorporated Houston, TX.

This presentation will impact the forensic science community by creating the first insect succession model on humans in this area and provide a baseline for future studies.

A human corpse was allowed to decompose above ground at the Southeastern Texas Applied Forensic Science (STAFS) Center at the Center for Biological Field Studies (CBSF) at Sam Houston State University in early spring. Other studies on carrion and survey studies using liver and heart had been previously conducted in the area. This study; however, represents the first controlled observation of human decomposition for the Piney Woods biogeoclimatic zone, an expansive area of sub-tropical Texas that includes the metropolis of Houston. Insect succession was recorded three times daily for approximately three weeks to document thoroughly the insect activity. During decomposition, night time temperature lows frequently dropped below 10 °C while day time temperature highs were frequently above 18.3°C. Several brief but drenching rain showers occurred. Of particular interest is the rapid mummification of the remains and the suite of insects specific to this process. Data from this research will be presented. **Forensic Entomology, Corpse, Early Spring**