H101 Raccoon (*Procyon Lotor*) Soft Tissue Modfication of Human Remains

Jennifer A. Synstelien, MA, The University of Tennessee, The University of Tennessee, Department of Anthropology, 250 South Stadium Hall, Knoxville, TN 37996-0720*

After attending this presentation, attendees will be visually exposed to the unique scavenging strategies employed by the common raccoon; and the soft tissue manifestations thereof, over the course of soft tissue decay.

This presentation will impact the forensic community by explaining the theory that postmortem scavengers are said to be attracted to open wounds. Animal depredation can quickly destroy evidence of perimortem soft tissue injuries. While canid soft tissue modification of human remains is generally recognized, procyonid (e.g., raccoon) modification has not been described. Given the unusual dexterity of its forepaws, the soft tissue artifacts produced by the scavenging raccoon are unlike canid depredation patterns. Recognition of raccoon modification of human remains may be crucial for the interpretation of soft tissue injuries thereby assisting the medicolegal investigator in the assignation of the manner of death.

This paper characterizes the soft tissue artifacts produced by the scavenging common raccoon *(Procyon lotor)*, as photographically documented at the University of Tennessee's Anthropological Research Facility. From September 2003 through July 2004, multiple digital cameras were stationed at the Facility—a 2½ acre plot of land set aside for human decomposition research—to record the nocturnal behavior of small mammal scavengers. Post-July 2004, the cameras were sporadically operated through spring 2006. Near daily visits to the facility in daylight enabled detailed photographic, and written, documentation of soft tissue changes due to any previous night's activity. The accumulation of digital video, and photography, has produced an archive of imagery documenting the condition of the body at the time of placement and the location, and timing, of soft tissue modification.

Raccoons (*Procyon lotor*), in the order Carnivora, can be found throughout much of the United States. Although highly adaptable to diverse habitats, they prefer hardwood forests near streams, lakesides, or other bodies of water. They may establish dens in hollow trees, abandoned ground burrows, brush piles, caves or rock piles, drain pipes, and in, or under, buildings and structures. Urbanization has attracted many raccoons into metropolitan areas due to easily obtainable food, water, and shelter. Exceptionally inquisitive, their unique dexterity enables them to manipulate objects and probe crevices extracting contents within reach for examination. The raccoon is highly omnivorous and forages at night for a variety of foods including fruit, berries, nuts, fish, mollusks, snails, earthworms, insects, crayfish, clams, frogs, turtles, carrion, and small rodents and birds as well as their eggs. By watching the behavior of other raccoons, they may incorporate new foods into their diet—such as corn, grain, vegetables, pet food, birdseed, and garbage. As an urban pest, they are known to uproot lawns while 'grubbing' for insects and their larvae. Melon growers recognize signature raccoon damage by the single hole cored through the rind with extraction of the interior's fleshy fruit.

The body donation program at the University of Tennessee, Knoxville provides for the unique opportunity to view nocturnal scavengers undeterred by chain link and privacy fencelines. As an excellent climber and an acceptable digger, raccoons have been frequent visitors to the Facility for several years. Human donors, and/or donor families, are aware that bodies decompose in a natural outdoor setting.

Taphonomy, Postmortem Scavenging, Common Raccoon

 ** Presenting Author*