



Physical Anthropology Section - 2014

H132 Scavenging of Human Remains Within a Human Decomposition Research Facility in Western North Carolina

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After attending this presentation, attendees will have a better understanding of scavenging activity and the impact of these scavengers on human decomposition within an outdoor human decomposition research facility located in rural western North Carolina. The goal of this research is to identify mammalian species that may influence the decomposition process. The influence these species may have on one another will be discussed.

This presentation will impact the forensic science community by examining the role that avian and scavenging mammalian species play on the decomposition process and will broaden the scope of existing knowledge of scavenging of human remains within a secured human decomposition facility.

Our understanding of the decomposition process is limited by the small number and scattered locations of human decomposition research facilities in the United States. Reporting the results of small-scale studies such as this one is an important step in understanding broader patterns of decomposition phenomena as well as regional differences. Such studies are also important in generating additional hypotheses to be tested. This research focuses on the role that certain species of scavengers play in the decomposition process within a controlled environment. These data are of importance to pathologists and physical anthropologists when tasked with estimation of postmortem interval and interpretation of scattered remains.

Over a period of seventeen months (June 2011-October 2012), six sets of human remains that had been placed on the ground surface within an outdoor human decomposition research facility in the mountains of western North Carolina were observed for decompositional changes. Motion-activated game cameras were utilized to track scavenger activity, and field visits were conducted to track changes in the remains.

This research resulted in the identification of “repetitive” and “sporadic” scavengers of human remains within the confines of the outdoor human decomposition facility in western North Carolina. When compared to previous scavenging studies completed at other human decomposition research facilities, the scavengers identified for this locale were similar. The “repetitive” scavenger was identified via consistent and regular appearances and feedings throughout the observation period. Although the “sporadic” scavengers may have consumed more at individual feedings, their appearances were not as frequent or as consistent as those of the “repetitive” scavengers. The animals identified as “sporadic” scavengers were not the species expected. In particular, the role of avian scavenging was highly diminished in comparison to a previous scavenging study completed within the same location. In addition, it was noted that scavenger interest in the remains varied, the cause of which will need to be explored through future research.

This research identifies several avian and scavenging mammalian scavengers of human soft tissue in the Blue Ridge physiographic zone of western North Carolina. As similar studies are conducted in other regions, our overall knowledge of scavenging of human remains will expand. By becoming more familiar with the results of such studies, professionals may experience a heightened awareness of the presence and activity of scavengers even in a seemingly protected environment.

Reference:

1. Martin PS, Johnston CA. Taphonomy of infant and child sized remains in western North Carolina. *P Am Acad Forensic Sci* 2012;18:358.
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Scavenging, Human Remains, Decomposition