



### A28 Scavengers at Real and Taxidermied Carrion

*Lauren R. Pharr, PhD\**, 5709 Lyons View Pike, Apt 2208, Knoxville, TN 37919

After attending this presentation, attendees will be aware of misconceptions regarding when and how scavengers locate carrion.

This presentation will impact the forensic science community by illustrating that forensically important animal scavengers appear early in the postmortem interval, regardless of whether the food is actually decomposing or simply appears to be decomposing.

Acceleration of decay by animal scavengers has been attributed to turkey vultures, which use smell to locate decay, and black vultures, which rely on sight. Once vultures hone in on a carrion source, they land and rapidly remove soft tissues from the body. Once skeletonization has been reached, terrestrial scavengers will then scatter and damage the bones.

Although researchers are aware that turkey vultures can locate food through smell, the ability of black vultures to use the sense of smell to locate food is debatable. New knowledge on vultures' ability to locate food via visual versus olfactory indicators will contribute to the understanding of both vulture scavenging behavior and the postmortem roles vultures have in forensic contexts involving buried or concealed remains.

To test the role of sight versus olfaction in vultures' ability to detect carrion, a taxidermied juvenile pig was placed seven times at three different site types where vultures had previously scavenged real juvenile pigs in the fresh stage of decay. The three site types included the Texas State Forensic Anthropology Research Facility (FARF), a cattle pasture located more than 1km from FARF, and rotating pig placement sites that changed locations with each trial. The Rotate Sites were located at least 7km from the other two site types.

On September 9, 2012, the project began by placing a juvenile pig in the fresh stage of decay at each of the three site types. This process was repeated every two weeks eight more times to determine if the site type affects vulture scavenging. Three real pigs were placed at the three sites during each of Trials 1-4. After the fourth placement of the decaying pigs, vultures had scavenged 11 of the 12.

Beginning on November 4, 2012 (Trial 5), both real pigs and the taxidermied pig were placed, and the taxidermied pig was placed at sites where the real pigs had been scavenged by vultures. As more real pigs were placed and scavenged by vultures, additional sites to place the taxidermied pig became available. During Trials 5-9, the taxidermied pig was placed biweekly at five of the Rotate Sites that had involved vulture scavenging of the real pigs. Following the conclusion of the ninth trial, the taxidermied pig was placed a sixth and seventh time at the cattle pasture and FARF sites, respectively. All pigs were monitored with a motion-activated game camera.

Results reveal that animal scavengers arrive early in the postmortem interval, regardless of whether the food source is dead or appears to be dead. Scavengers at the taxidermied pig included turkey vultures, a red-tailed hawk, a crow, coyotes, dogs, foxes, opossums, raccoons, and a bobcat. Other animal visitors included deer, cows, and rabbits. Surprisingly absent was the black vulture, a scavenger said to rely on sight. This is surprising because 121 black vultures were present at the real carrion placed during the nine trials.

In addition to advancing the discussion on how scavengers detect a carrion source, this research contributes to the discussion of the trauma scavengers inflict. During this study, scavengers removed an ear and the tail of the taxidermied pig and left linear scratch marks on the abdomen. This trauma is consistent with scavengers going for



## Anthropology - 2017

---

easily removable and accessible parts of the body as seen on real carrion.

The unexpected presence of forensically important scavengers at the taxidermied pig, a pig unable to decompose and unaffected by accumulated degrees, will promote a discussion on the need to include avian and terrestrial scavengers in future taphonomic studies.

---

**Scavenging, Taphonomy, Taxidermy**