



Physical Anthropology Section – 2006

H41 Seasonal Variation of Scavenging and Associated Faunal Activity on Pig Carcasses in South Western Australia

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After attending this presentation, attendees will have some understanding of the pattern of scavenging of carcasses by animals in south Western Australia and how this varies with seasonal climactic factors.

This presentation will impact the forensic community and/or humanity by demonstrating that seasonal faunal scavenging variation does occur in south Western Australia. Such information is useful to the forensic community when examining a body that has animal modifications associated with it. These modifications can influence the rate of decomposition, removal of bones and soft tissue, and artifacts created on the tissues by the act of scavenging.

Scavenging after death is inevitable for bodies which remain exposed for any length of time. Previous research on the effects of scavenging on the body focused mainly on the activities of carnivores and rodents which are indigenous to North America and Europe including coyotes, wolves, bears, dogs, cats, and rats. There has been little direct observation of scavenging in the wild, however, and no research on scavenging in Western Australia (surrounding the capital city, Perth).

This project was designed to discover which animals scavenge remains and how this varies with seasonal climate changes. Female pig carcasses, weighing approximately 40 kg, were placed outdoors in different seasons and allowed to decompose to roughly the same state, partial skeletonization with mummification of the remaining skin in environments which would allow access by scavengers. Decomposition of the pigs was filmed using an infrared camera and recorded on a time lapse VCR. The resulting videos were viewed and records made of the state of the carcass (in terms of decomposition), each feeding animal, time of scavenging, and length of feeding session. The type of feeding was also noted, either direct feeding on the animal or indirect feeding (feeding on the animals and insects associated with the body). Weather data (temperature, rainfall, and hours of sunshine) were collected from the Australian government's Bureau of Meteorology which has weather stations situated throughout the area.

Animals which were observed feeding on and around the body included bandicoots, varanid lizards, possums, skinks, honeyeaters, Willie wagtails, frogs, and rats. The predominant animal which scavenged on the bodies was the Australian raven (*Corvus coronoides*) which fed throughout the year both directly on the body and the associated insects. Birds were more active in scavenging during the winter months when other food resources were unavailable, while in summer, when food resources were scarce, reptiles fed on the body and the associated insects. Mammalian scavenging by possums, bandicoots, rats, and mice occurred almost exclusively at night in all seasons.

This study has demonstrated that seasonal faunal scavenging variation does occur in south Western Australia. Such information is useful to the forensic community when examining a body that has associated animal modifications. These modifications can influence the rate of decomposition, removal of bones and soft tissue, and artifacts created on the tissues by the act of scavenging. This preliminary research suggests that further studies of this type should be conducted throughout Australia.

Scavenging, Seasonal Variation, Western Australia