

The Effects of Tarp Wrapping on Blow Fly Oviposition during Decomposition of Pigs

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The effects of blow fly oviposition on 12 young, recently deceased pigs were studied during a one month period in the fall semester of 2012. This project follows similar techniques that Dr. Bugajski used during her research project at Purdue. Using tarp-wrapped bodies as the sole variable, bare pigs were held as the control. The data that were collected included the presence or absence of larvae or adult flies, daily temperatures, samples of both larvae and adult flies, and the start and end of maggot migration. The samples of larvae and adult flies were later identified in the lab and separated based on species. The data suggested that the presence of a tarp wrapped around a deceased pig delayed the oviposition of eggs. A t-test showed that there was a statistical difference in the timing of oviposition between the control and variable. Pig tissue behaves similarly to human tissue during the decomposition stages and it is an affordable and accessible material. Looking ahead, the data from this project can be used by forensic professionals when determining necessary factors of a crime scene involving a body altered in a similar way.

Information about the Authors:

Natasha Lobosky is a senior biology and chemistry double major on the pre-med track. She plans to attend medical school in order to become a forensic pathologist. This is what spurred her interest in the topic of postmortem body decomposition and how different environments affect this process. This is her first research project at Valparaiso University. Jordan Stein is a senior biology major with two minors in chemistry and classical civilizations. In the future, she plans to attend graduate school in pursuit of becoming a physician assistant. She attended Dr. Bugajski's lecture on the research she conducted at Purdue when she was a prospective professor for Valparaiso University. This inspired Jordan to work with Dr. Bugajski on her research during her first year at VU. This is also Jordan's first research project at Valparaiso University.

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