All That Remains: Forensic Entomotoxicology Testing for the Presence of Ketamine and Flunixin Transference to a Decomposing Host

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The purpose of this study is to test for the presence of Ketamine and Flunixin transference to insects from injected pig tissue during different decomposition stages by using body farm techniques. It is hypothesized that the insects collected from all pig tissues (1-5) will show a close comparison to the positive control of the drug being tested for when ran through ELISA testing. It's hypothesized that the insects of insects collected from pig tissue with 20 mg of injected drugs, pig tissue 3 and 5, will have a closer comparison to the positive control than those from 2 and 4 with the lower concentrations. It is also hypothesized that the insects collected from each pig tissues injected during days 6-10 will have a closer comparison to the positive control that the other stages. Five stillborn pigs were placed in a 6x4x8 ft. cage after being injected with various drugs and concentrations: 10 mg of Ketamine, 20 mg of Ketamine, 10 mg of Flunixin, 20 mg of Flunixin, and the other pig left as a control with no drugs. The pig tissues underwent each decomposition stage throughout 15 days while close examinations of the stages, weather conditions, and insects present took place. Each day insects were collected and separated accordingly to the pig tissue collected from and the day collected. The insects were grinded using mortar and pestle method. An appropriate Neogen ELISA 96 well drug testing kit was used for the insect samples. The insects collected from each pig all tested positive for an absorbance of the injected drug. The insects collected from the pigs injected with only 10mg of specific drug absorbed closer to the positive control. The insects collected from the pigs during days 6-10 were all lower in absorbance to the positive control than the first and last five

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