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FORENSIC ENTOMOLOGY ON THE GAUTENG HIGHVELD

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ABSTRACT

Forensic Entomology utilises arthropods in legal investigations that involve death, neglect and abuse of humans and animals and even civil cases like insurance claims. This study aimed to make general observations on the decomposition of a pig carcass (*Sus scofa* Linneaus) in relation to recorded temperatures of the carcass and the surrounding site during both summer and winter on the Gauteng Highveld. The study also aimed to identify the dominant blowfly species occurring in the region. Six species were identified: *Calliphora vicina, Chrysomya marginalis, Ch. albiceps, Ch. chloropyga, Lucilia sericata* and *L. cuprina.* The cephaloskeleton, anal spiracles and anterior spiracles were dissected from the first, second and third larval instars of the flies to isolate the key features currently used in morphological identifications. The ITS2 region was investigated for the development of a multiplex PCR method to identify these species. The multiplex PCR method did not include *Chrysomya albiceps* but does successfully differentiate between the other five commonly occurring blowflies.