Use of temperature model in estimating postmortem interval in Forensic entomology

ABSTRACT

The feasibility of using a temperature model with the developmental rates of Chrysomya megacephala and C. rufifacies to estimate post mortem interval (PMI) was explored with six recent forensic cases in Kota Kinabalu, Malaysia. The PMI obtained from the model was compared to that calculated from the observed half hourly air temperature data recorded at the Kota Kinabalu Airport weather station. The results indicate that there are only minor differences between the PMI estimates obtained from the model and observed temperatures. We conclude that this temperature model could provide reasonable PMI values, especially where observed temperatures are not available. Other possible uses of the temperature model in forensic work are also discussed.