

**A-11 : PRELIMINARY OBSERVATIONS ON THE SUCCESSION
OF SARCOSAPROPHAGOUS FLIES ON ANIMAL CARCASSES IN FIVE
DIFFERENT DISTRICTS OF SRI LANKA**

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A study is in progress in order to identify the sarcosaprophagous flies attracted to putrefying carcasses and to study their waves of succession under different climatic conditions in Sri Lanka. The exercise is aimed at identifying all species of these flies found in the country map out their distribution and study their succession in infestation of carcasses. The study is conducted in the context of forensic entomology.

Five experiments were conducted (March-June 1992) in Colombo, Anuradhapura, Kataragama, Nuwara Eliya and Ratnapura using rabbit carcasses. Two carcasses with identical times and manner of death were set up out-doors simultaneously. Temperature, humidity and weather conditions were recorded each hour from 06hr to 19hr. The pattern of arrival of flies and oviposition were also observed and recorded.

Eggs/larvae were collected from their first appearance each hour, from one carcass. A sample of hourly collection of eggs were cultured in the laboratory for species identification.

Flies landing on the other carcass were caught every two hours for 10 minutes on each occasion.

The temperature and humidity were 31.35 ± 4.04 °C, $85.73 \pm 10.64\%$ in Colombo, 30.89 ± 3.40 °C, $92.00 \pm 9.00\%$ in Anuradhapura 31.44 ± 3.00 °C, $74.80 \pm 12.88\%$ in Kataragama, 20.20 ± 5.45 °C, $90.84 \pm 7.15\%$ in Nuwara Eliya and 27.02 ± 1.2 °C, $91.69 \pm 4.10\%$ in Ratnapura.

A definite pattern of fly succession was observed in low-country. The pattern was Sarcophagidae, Calliphoridae and Muscidae under dry weather conditions. The species identified were species of *Sarcophaga*, *Calliphora*, *Chrysomyia* and *Ophyra*. Although not of forensic significance the species identified included *Musca sorbens*.

This definite pattern was not observed in the up-country succession; variant was Muscidae. In addition to the species found in low-country, several other species of *Calliphora*, *Chrysomyia* and *Musca* were also found in the up-country situation.