

Description of larval instars of *Chrysomya rufifacies* (Macquart) (Diptera: Calliphoridae), a species of forensic importance in Malaysia.

ABSTRACT

The anatomical structures of the first, second and third instars of *Chrysomya rufifacies* (Macquart) were examined by light microscopy. Observations were documented on the three main characteristics; the cephalopharyngeal skeleton, anterior spiracle and posterior spiracle. The first instar larva bore cornuae of fairly pigmented delineation with slim hypostomal sclerite and distinct dental sclerite. First instar did not have obscured anterior spiracle but posterior spiracles were obscured with thin lining of opened peritreme. Intersegmental spines were evident. The second instar larva displayed a prominent anterodorsal process approaching closer to hypostomal sclerite while upper margin of the dorsal cornua was slightly pigmented. Each anterior spiracle consisted of nine to ten papillae, arranged in a single row. Peritreme of the posterior spiracle thick, opening at the end of peritreme was not wide and confined to two spiracular slits. The third instar larva showed a prominent arch of the ventral cornua with broad and bold appearance. It approached the dorsal cornua and became narrow at the incision median. The anterior spiracle consisted of a single row of nine to ten papillae while intersegmental spine could be identified with one to three dark pigmented tips. A dark pigmented and wide peritreme was observed confining three short and thick spiracular slits while button was poorly pigmented. The most distinctive feature of this second and third instar larva was the slender, thorn-like tubercle with numerous spined tips on the middle line segment of the body. These findings provide identification features of *C. rufifacies* larvae instars.

Keyword: Forensic entomology; *Chrysomya rufifacies*; Larva instar.