

Ultrastructure of the Chorion of *Machimus rusticus* (Meigen, 1820) (Diptera, Asilidae)

Zekiye SULUDERE Selami CANDAN Yusuf KALENDER

Abdullah HASBENLi

Gazi University, Faculty of Arts and Sciences, Department of Biology, 06500
Teknikokullar, Ankara, TURKEY, e-mail: suludere@quark.fef.gazi.edu.tr

ABSTRACT

The fine structure of the *Machimus rusticus* chorion was studied both with a transmission (TEM) and with a scanning electron microscope (SEM). The females were collected from Aksaray, AþađýDikmen village and maintained under laboratory condition. Eggs were laid singly in cotton batting and were usually well separated from each other. Eggs were pale yellow color when first deposited. The eggs averaged 1.3 mm in length and 0.4 mm in width. Small, rounded bodies cover much of the surface except at the end from which the larva emerges. These bodies are intermixed with larger, dome-like projections that have sloping sides, smooth apical surfaces, and each has a rounded opening. In cross section, the exochorion and endochorion are easily distinguished by transmission electron microscopy. The exochorion has electron dense spherical structures that are covered by fibrillar material. The basal surface of the endochorion has some evaginations.

Key words: Chorion, SEM, TEM, robber flies *Machimus rusticus*, Asilidae

INTRODUCTION

The scanning electron microscope has been an important tool in elucidating the external morphological detail of diverse biological material. The surface structure of dipteran eggs, as revealed by scanning microscopy, often provide reliable characters for separation of species (Salkeld, 1980; Kula, 1988; Kuznetsov, 1988; Linley & Chadee, 1990; Sahlen, 1990, 1996; Mouzaki et al., 1991; Feliciangeli et al., 1993; Greenberg & Singh, 1995; Service et al., 1997). Although an extensive