

**Chorionic sculpturing in eggs of six species of *Eurydema*
(Heteroptera, Pentatomidae): A scanning electron microscope
investigation**

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ABSTRACT

The egg-shell structures of *Eurydema blandum*, *E. oleraceum*, *E. rugulosum*, *E. ventrale*, *E. spectabile*, *E. fieberi* were investigated by light and scanning electron microscopy. Although the eggs of each species were more or less typical barrel-shaped and had a T-shaped egg burster, some differences in egg morphology were observed, including slight variations in egg shape and size, different patterns of chorionic sculpturing and a specialized opercular area.

Key words: Egg shell, chorion, scanning electron microscope, SEM, *Eurydema*

INTRODUCTION

The surface ultrastructure of various chorionic modifications has shown morphological, physiological and ootaxonomic significance in various insect orders (Hinton, 1981; Downey and Allyn, 1980, 1981, 1984; Salkeld, 1983, 1984; Margaritis, 1985; Gaino et al., 1987, Suludere, 1988). In Heteroptera including Pentatomidae, the egg surface structure of species has been reported by many authors, however accurate knowledge of the egg morphology is still lacking in many taxonomic groups (Heymons, 1906; Schumacher, 1917; Esselbaugh, 1946; Puchkova, 1955, 1956, 1957, 1959, 1966; Shuxhi, 1985; Vennison and Ambrose, 1990; Javahery, 1994; Baker and Brown, 1994; Bundy and McPherson, 1997; Neal and Bentz, 1997; Candan, 1997, 1998). The egg of the *Eurydema ventrale* (Lodos, 1964; Benedek, 1968), *E. cyaneum* (Cobben, 1968), and *E. oleraceum* (Benedek, 1968; Javahery, 1994) have been briefly described with the light microscope but it requires further investigation. The present study provides descriptions of the eggs *E. ventrale*, *E. oleraceum* and four additional species, *E. blandum*, *E. rugulosum*, *E. spectabile*, *E. fieberi* with scanning electron micrographs.