

External Morphology of Eggs of *Codophila varia* (Fabricus, 1787) (Heteroptera: Pentatomidae)

Selami CANDAN Zekiye SULUDERE Suat KIYAK

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

ABSTRACT

In the eggs of *Codophila varia* (Fabricus, 1787), chorion external morphology, egg-burster and micropylar processes were studied both with a light and with a scanning electron microscope (SEM). The females were collected from Karabük, Safranbolu, Çerçen village and maintained under laboratory conditions. Each female deposited 34-76 eggs. The barrel shaped eggs averaged 1.15 mm in length and 0.74 mm in width. Eggs were pale yellow in color when first deposited but changed to orange after embryonic development. The first external evidence of embryonic development is the appearance of two red eye spots opposite each other beneath the operculum. Then, a blackish T-shaped egg burster appears between the eye spots. The egg surface exhibits chorionic spines are connected each other forming irregular polygons or circular patterns with a depressed surface. Around the hatching line of operculum, there are 10-12 pipe-shaped micropylar projections among the short chorionic projections which are connected each other.

Key words: Eggshell, chorion, SEM, *Codophila varia*, Heteroptera.

INTRODUCTION

Egg surface structure of Heteroptera species including Pentatomidae has been reported by many authors, however accurate knowledge of the egg morphology is still lacking in many taxonomic groups (Baker & Brown, 1994; Bundy & McPherson, 1997; Candan, 1997, 1998a, b, 1999; Candan & Suludere, 1999a, b; Hinton, 1981; Javahery, 1994; Lambdin & Lu, 1984; Puchkova, 1955, 1959, 1966; Shuxhi, 1985; Shuxhi et al., 1990; Suludere et al., 1999; Vennison & Ambrose, 1990). The