Egg ultrastructure of *Capoeta mandica* Banarescu & Bianco 1982 (Cypriniformes: Cyprinidae) from southern Iran using SEM

Razieh Chobineh, Hamid Reza Esmaeili and Halimeh Zareian*

Department of Biology, College of Sciences, Shiraz University, Shiraz, Iran h.zareian@gmail.com

Abstract

SEM studies are an important prerequisite to obtain further insight into the fine structures of teleost eggs. The scanning electron microscope was used to investigate the ultrastructures of the ripe eggs (stage V) membrane surface (unfertilized egg), *Capoeta mandica* from Rudbal River, Persian Gulf Basin, Fars Province. For SEM study, the ripe eggs were removed from ovaries and fixed and preserved in 10% formalin. The eggs were then cleaned with a fine brush and forceps, washed with distilled water and then dehydrated in a graded series of ethanol (30, 50, 70, 90, and 100%). The eggs were mounted on aluminum stubs coated with thin layer of gold, and were observed and photographed with a Lecia Cambridge scanning electron microscope (SEM) at voltage of 20 KV. The eggs of this species were almost semicircular in shape, had a smooth surface and one micropyle (Type III) having a canal with small pores. The micropyle region is not flat, circular or oval in shape and the micropyle canal is located in its center. The surface of zona radiata is smooth with a uniform distribution of almost round pores.

Key words: Ultrastructure, SEM, Capoeta mandica, Micropyle.