

Study of Liver and Intestine Tissue Structure in Orange Spotted Grouper (*Epinephelus coioides*) During Larval Development

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Abstract

The goal of this study was histological and morphometrically changes of liver and intestine in spotted grouper, because they are two important tissues for developing. After feeding larva with designated rations every five days, liver and intestinal tissue were removed and performed by standard and routine tissue procedures. Sections were stained with H&E and PAS and were examined under light microscope. Microscopic. The morphometric studies showed that the area of the hepatocytes, long and diameter of villi increased as larval developing. But the greatest changes in area of the hepatocytes were observed from six weeks to the end of the larval period. The most changes on villi long were seen 35 to 60 days after hatching, and maximum diameter changes were seen three weeks from the time of hatching. Development of liver and intestinal tract in normal grouper fish larvae have a pattern similar to other teleosts, but there was some differences in terms of time differentiation and organ function among different species that depends on the life history and a number of genetic, environmental factors and nutrition.

Keywords: *Histomorphology, Liver, Intestine, Epinephelus coioides.*
