

Morphofunctional characterization of the digestive system in the palm ruff larvae, *Seriolella violacea* under culture conditions

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© 2018 Elsevier B.V. In the present study, the histological changes and digestive enzymatic activity patterns are described during the larval development of palm ruff, *Seriolella violacea* from hatching up to 50 days after hatching (DAH). At hatching, the digestive tract consisted of an undifferentiated straight tube dorsal to the yolk-sac, which presented alkaline protease activity (trypsin and chymotrypsin) as well as amylase and lipase activities with similar patterns during larval development. At 20 and 23 DAH, histology of the stomach revealed a sac-like shaped organ, with an epithelium that began to differentiate in a cardiac and a pyloric region. Typical histological structures of a stomach were visible at 33 DAH with a concomitant pepsin activity. Gastric glands were clearly visible at 35 DAH, increasing in numbers up to 37 DAH, suggesting a functional stomach at this age. A significant increase in the specific activity of all enzymes including pepsin (except amylase) was observ