

LEUKOCYTE DIFFERENTIAL OF ANGUILLID EEL, *Anguilla bicolor* McClelland, EXPOSED TO VARIED SALINITIES

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Abstract	<p>The anguillid eel is a catadromous eel capable of inhabiting freshwater growth habitat and seawater spawning habitat throughout their life cycle. At the juvenile to mature stage, they inhabit freshwater then migrate to marine water to spawn. Changes in salinity, which is one of the stressful environmental factors for the eel, affect their physiological condition by increasing the leukocytes number. This increase is an adaptation method to improve their immune system as a response to salinity change. This study intended to evaluate the leukocyte differential of anguillid eel (<i>Anguilla bicolor</i> McClelland) exposed to various salinities. This research applied a Completely Randomized Design. The treatment was three levels of saline media including 4 ppt, 15 ppt, and 30 ppt with five replicates. The independent variable was the different salinity, and the dependent variable was the leukocyte differential. The parameters measured consisted of the different percentage of neutrophils, lymphocytes, monocytes, and eosinophils in which the measurements administered after two months of the eel exposure. We analyzed the data with ANOVA at the confidence level of 95%. The results showed that exposure of salinity significantly affected the percentage of leukocyte differential ($P < 0.05$). The increase in salinity decreased the neutrophils and monocytes, but increased the lymphocytes, and showed no effect on eosinophils.</p>
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