EFFECTS OF DIFFERENT SALINITY LEVELS ON GROWTH AND PHYSIOLOGICAL RESPONSE OF Tor soro JUVENILE

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Author Order	12 of 12
Accreditation	1
Abstract	Tor soro is one of the most economically important native freshwater fish species in Indonesia. Nonetheless, the insufficient data regarding its salinity tolerance makes a thorough investigation of this issue imperative. This research was conducted to determine the effects of salinity on the growth and physiological response of Tor soro juveniles at optimum salinity levels. This study used Tor soro (total length: $5.0\tilde{A}$, $\hat{A}\pm0.08$ cm; initial weight: $2.0\tilde{A}$, $\hat{A}\pm0.06$ g) with five salinity level treatments of, $0, 2, 4, 6$, and 8 ppt, and the stocking density of 15 fish per aquarium (three replications). Fish were maintained for 30 days and fed with commercial aquafeed. In this study, the best growth was found in 2 ppt (length gain: $0.37\tilde{A}$, $\hat{A}\pm0.05$ cm; weight gain: $0.23\tilde{A}$, $\hat{A}\pm0.01$ g; specific growth rate in length: $1.38\tilde{A}$, $\hat{A}\pm0.16\%$ day-1; specific growth rate in weight: $0.78\tilde{A}$, $\hat{A}\pm0.05\%$ day-1) which is significantly higher than 4 , 6 , and 8 ppt (p<0.05), but it is not significantly different from 0 ppt (p>0.05). The results of the physiological response showed that there were no significant stress responses in Tor soro juvenile for all salinity treatments (p>0.05). there was no effect of 2 ppt salinity on the growth parameters compared to controls, but salinities above ppt had a significant detrimental effect. Exposure to salinities did not have any stress effect as shown by physiological indicators.
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