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Effect of different salinity concentrations on hatching rate and larval development of Patin buah, Pangasius nasutus (Bleeker, 1863)

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Abstract

The effects of water salinity on hatching rate and larval performance of Patin Buah (Pangasius nasutus) were studied. The fertilized eggs were incubated at $27.5-28^{\circ}$ C in different concentrations of salinity (0, 1, 2, and 3 ppt) until hatch. The hatching rate of 0 ppt ($48.6 \pm 3.7\%$), 1 ppt ($52.5 \pm 3.7\%$), and 2 ppt ($39.7 \pm 6.4\%$) were significantly higher (P < 0.05) than in 3 ppt ($14.8 \pm 2.0\%$). The percentages of larval survival at day 30 were $65 \pm 1.5\%$, $72 \pm 5.0\%$, $57 \pm 15.0\%$, and $32 \pm 3.1\%$ in 0 ppt, 1 ppt, 2 ppt, and 3 ppt respectively. Survival rates were significantly higher (P < 0.05) in 0 ppt and 1 ppt compared to 2 ppt and 3 ppt. This study reveals that salinity did not significantly improve hatching and the survival rate of P. nasutus, but 1 ppt could be used for the hatching process and larval nursing. © 2021 Taylor & Francis.

Author Keywords

egg incubation; Exogenous hormone treatment; induced spawning; sodium chloride

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