EFFECTS OF IONIZED AIR TREATED WATER ON THE MORPHOMETRICS OF *Tilapia nilotica* (NILE TILAPIA)

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Abstract

Tilapia nilotica is one of the most abundant and common fish that plays a part in an ordinary Filipino diet. The decrease of the time it takes for a fish farmer to cultivate them in order to increase the yield of production and reduction of its price rate in the market is the major objective of this study. This was done through water ionization treatment. Results showed that the water treated with ionizer induced a significant difference on the growth rate specifically on total body length ($T\sim-114.18 \geq 0.05$), standard body length ($T\sim-112.79 \geq 0.05$), head length ($T\sim-110.75 \geq 0.05$), head width ($T\sim-108.26 \geq 0.05$) and body weight ($T\sim-121.27 \geq 0.05$) indicating that the growth for the organisms in the experimental setup was faster compared to the organism in the control setup. Physicochemical parameters such as pH, DO and nitrate were monitored in the study. Results showed that water treated with ionizer had a significant difference for pH ($T\sim65535 \geq 0.05$) and DO ($T\sim-9.89 \geq 0.05$). No significant difference was accounted for nitrates ($T\sim0 \geq 0.05$). The pH became acidic while DO concentration increased indicating that the amount of oxygen increased. Statistically, ionization is efficient in yielding marketable sized fishes in a short amount of time. Performing this study on a larger scale is advisable to determine whether the method is also efficient in the usual breeding area.

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