

## DIURNAL OXYGEN VARIATIONS AND OXYGEN CONSUMPTION OF *PENAEUS MONODON* WITH COMPARISON OF TEMPERATURE, PH AND TURBIDITY IN CULTURE POND

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### ABSTRACT

Dissolved oxygen levels and variations have been monitored in culture pond stocked with *P. monodon*. Experiments were conducted on diurnal variations of oxygen consumption, temperature, pH, turbidity, growth and biomass. In the experimental culture pond the lowest oxygen was recorded in early morning is  $2.08 \pm 0.183$  mg/lit and night (12 AM) is  $4.73 \pm 0.295$  mg/lit at 124 to 128 days of culture period. The lowest water temperature was recorded in early morning is  $19.7^{\circ}\text{C}$  and evening (6PM) is  $23.5^{\circ}\text{C}$  at 130 days culture period. The lowest pH was recorded in early morning is 7.4 and evening 7.6 at 124 to 128 days. The lowest transparency/turbidity was recorded in early morning is 37.5 cm, and evening is 25.5 cms. The Pearson Correlation Coefficient of individual body weight and total biomass of R value is +1. This is a strong positive correlation, which means that high X variable scores go with high Y variable scores. The P-Value is  $<.00001$  hence the result is significant at  $p <.05$ . The F value of temperature, pH and turbidity is a value on the F distribution to determine the test is statistically significant in culture ponds.

**KEYWORDS:** Pearson Correlation Coefficient, Oxygen Consumption, Temperature, pH, Turbidity, Culture Pond, Estuary

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