



Fig.1. Ammonia content performance during the experiments

In the controls, average concentration of ammonia was approximately $0.0184 \pm 0,00097$ mg/l. Addition of 1kg *Gracillaria* /m³ resulted in average concentration of ammonia 0.0067 ± 0.0004 mg/l, or 66.66% lower than controls. Addition of 2 kg *Gracillaria* /m³, resulted in average concentration of ammonia 0.0066 ± 0.0007 mg/l, or 61.11% lower if compared to controls. With 3 kg *Gracillaria* /m³ the average concentration of ammonia was 0.006200 ± 0.00052 mg/l, or 62.22% lower than controls. *Gracillaria* density was significantly had a negative correlation to ammonia content in the water ($r=0,83^*$, $p=0,02567$ $n=12$).

Nitrite removal

The average of nitrite concentration was ranged between 0.0021 mg/l to 0.0476 mg/l. According to Handoyo (1990), nitrite concentration in traditional managed shrimp pond was ranged between 0.004 to 0.78 mg/l, whereas in the shrimp pond that intensively managed was ranged between 0.3 to 1.7 mg/l. The range of nitrite concentration in this research was almost similar to traditionally managed shrimp pond. Boyd (1990) stated that nitrite toxicity to shrimp at the value of LC 50:24 is 170 mg/l.