REARING OF BLACK TIGER SHRIMP (*Penaeus monodon* FABRICIUS) TO SPAWNER SIZE IN EARTHEN PONDS, NARATHIWAT PROVINCE

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ABSTRACT

Study on rearing of black tiger shrimp to spawner size in earthen ponds was carried out in Narathiwat Coastal Fisheries Research and Development Center. Preadult shrimps at the age 140 days old, average length of 13.60 ± 5.61 g were stocked at the amount of 24,000 shrimps or 5 shrimps/sqm and fed 5 meals/day. The shrimps were transferred to the new ponds in 85, 215 and 270 days respectively until 310 days (450 days old). There were 265 shrimps remain. Survival rate was 1.10%. The average length and weight of male were 20.65 ± 1.78 cm and 98.52 ± 29.78 g and those of female were 21.08 ± 4.68 cm and 105.15 ± 20.20 g, respectively. The sex ratio of the remaining shrimp was 1.38:1. Water quality especially salinity, probably showed inappropriate for gonad development of the shrimp.

The present study indicates that there is possible to grow preadult shrimp to spawner size within 12 – 14 months with the average growth rate of 0.25 g/day. Salinity shows a significant factor influencing to the reproductive quality of the shrimps. This study also indicates the negative effect of frequency of transferring shrimp to the new ponds that could result to low survival rate. This understanding is able to apply for the management of black tiger shrimp broodstock for the good quality and production.

Key words: Black tiger shrimp, Spawner size, Earthen pond, Rearing

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