



**EFFECT OF GOLDEN APPLE SNAIL (*Pomacea canaliculata*) MEAT  
AS FEEDS ON THE GROWTH AND SURVIVAL RATES  
AND BIOCHEMICAL COMPOSITION  
OF MUD CRAB (*Scylla serrata*)**

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### ABSTRACT

Mud crab is considered a new species in aquaculture, widespread interest in its culture is increasing due to rising market value of mud crabs. At present shrimp feeds and trash fish are currently used as feed stuff for mud crabs, however, their prices are continually rising. Finding low cost feed supplies has been identified as one of the key challenges facing the rapid growth of the mud crab farming sector in Asian countries. To identify alternative feed in the culture of mud crab (*Scylla serrata*), five diets were tested as follows: GAS meat, trash fish, shrimp feed, GAS meat + trash fish, GAS meat + shrimp feed. This study compared the effect of the five diets to the growth and survival rate, % biochemical compositions and economic viability of 75 pieces lean mud crabs fattened for 20 days. Mud crabs were stocked individually in plastic cases fitted in bamboo frames and installed in brackish water pond. Results showed that mean final weight, carapace length and width of mud crabs fed with GAS meat do not differ significantly ( $P>0.05$ ) among other treatments. 100% survival rates were recorded on mud crabs fed with GAS meat, TrF and GAS meat + TrF. Protein content is highest in GAS+TrF – fed mud crabs. Cost- benefit analysis showed that GAS meat + TrF diet resulted to highest gain. In conclusion, golden apple snail (*Pomacea canaliculata*) meat is a potential feed source for the mud crab diet as an alternative to trash fish and shrimp feed.

**Key words:** cost-benefit analysis, golden apple snail, growth rate, mud crabs, fattening, shrimp feed, operation cost, pre-operation cost, survival rate, trash fish



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