Growth and survival dynamics of a local prawn species (P. monodon) based on stocking density and feed gradients

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Prawns are one of the high value marine fish species farmed globally. Indeed significant effort has been made to farm different species in several parts of the world with different level of success. However, in Kenya little effort has been made to undertake developed in this sector through sound research. Initial attempts to farm the species can only be traced back to the FAO funded project in the 1980’s that only had modest success. In an effort to revise the sector, research is needed to advice operations of any commercial farming of the species in terms of nutrition and stocking densities. Thus a research was undertaken to evaluate growth and survival of the P. monodon in net cages installed in intertidal brackish water earthen ponds in Kenya. In the absence of hatcheries in Kenya, all the prawn seeds were collected from mangrove creek channels identified, measured and then stocked at densities of 10 and 15 prawns/m². The prawns were fed with two feeds formulated locally using blood meal and fish meal at 40% protein and two imported feeds from Australia i.e. NovacqTM feed, No NovacqTM. Initial results indicate higher growth and survival for the imported feeds compared to the locally formulated feeds. Comparing the imported feeds alone, NovacqTM higher growth than the No NovacqTM although significantly not different. Similarly, for the local feeds blood meal made feeds had low survival and growth compared to fishmeal formulated feeds. The effect of density on growth and survival was more felt in blood meal diets compared to all other diets used in the experiments. Therefore, there is a potential of local prawn P. monodon to be developed as a high value marine fish for mariculture production in Kenya. However, significant effort needs to be made in establishing the feed industry for commercial profitability.