

A study of the utilization of formulated diets for *Scylla serrata* and *Scylla paramamosain* crab seed nurseries

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Abstrak

Crab farmers already cultivate crabs by fattening them up in bamboo cages, raising soft-shelled crabs on floating rafts and growing crabs in ponds. These activities, however, still depend on wild crab seeds and so to ensure their continuity, experiments on the production of *Scylla* spb. crab seeds in a hatchery have been conducted in several countries. Crab seed produced in a hatchery is expected to have better survival and growth rates than natural crab seed. Recently, the Research Centre for Oceanography has succeeded in producing *Scylla serrata* and *Scylla paramamosain* crab seeds (crablets). Individual rearing methods were used to test the crablet diet formulations in this study. The purpose of the study was to establish formulated diets, for the crablets of both species, that would result in high survival and rapid growth rates before the juvenile crabs were returned to their natural environment. The formulated diets NTS, NRS, NTW and NRW were used for raising *Scylla serrata* crablets (June to July 2013), while formulated diet R and formulated diet M were used for *Scylla paramamosain* crablets (July to August 2013). All of the formulated diets provided proven higher crablet survival rates than natural prey diets (boiled shrimp meat of *Penaeus vannamei*). The formulated diet NTS gave the intermolt period (11-15 days). The formulated diet R produced a higher growth rate in *Scylla paramamosain* crablets (Carapace Length GR 1.352 %/day and Carapece Width GR 1.588 %/day) than the formulated diet M (Carapece Length GR 1.048 %/day and Carapece Width GR 1.112 %/day). The formulated diet NTS has ingredient, their availability in the market depends on the season. The formulated diet M has tilapia fish (*Tilapia mosambica*), which can be easily cultivated in the pond, as the major ingredient. The possibility of increasing the nutritional value of the formulated diets can be studied by comparing results from varying the ratio of of the use of animal oils to vegetable oils, as well as increasing the level of calcium material. The information provides an opportunity for the crab farmers to not be dependent on only one kind of main ingredient for preparing the diet formulation. Furthermore, a rearing nursery, using an individual plastic juice glass for each crablet, is a cheap facility and provides certainty about the successful production of juvenile crabs.