Research Title Comparative Effects Between Two Different Mixing Sea Water in Rearing of Juvenile Giant Fresh Water Prawn, Macrobrachium rosenbergii de Man, in Static Conventional Method

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Abstract

The effects between two different mixing seawater in rearing juvenile giant freshwater prawn in static conventional method were studied. The compositions of mixing seawater formula I were 1 liter of concentrated seawater, 3000 grams NaCl in 150 liters of water and formula II mixing seawater were 10 liters of concentrated seawater with 150 liters of water.

At the beginning of the experiment the salinity was 14-15 ppt. at pH 8.08-8.1 and the temperature was 22.5-26.3°C. Prawn larvae were fed with Artemia sp. and

fish meal mixed with yolk. During the experiment the water was cleaned daily by siphoning out excreta and excess food. The volume of water siphoned out was about $\frac{1}{3}$ and fresh water of same volume was added to the rearing vessel. At 10 days interval the salinity of the water was decreased by 2% by adjusting the volume of added water.

It was found that mixing seawater formula I could support growth of prawn larvae from stage I to stage XII in 32-40 days with survival rate of 1.35% and the density of the juvenile prawn was 0.85 per liter. The mixing seawater formula II could not support growth of prawn larvae. The larvae died within 4-5 days.

The development of prawn larvae were studied and it was found that there were 12 stages of development as follow : stage I : 1-2 days, stage II : 2-4 days, stage III : 4-8 days, stage IV : 6-12 days, stage V : 10-14 days, stage VI : 12-20 days, stage VII : 18-22 days, stage VIII : 20-26 days, stage IX : 22-30 days, stage X : 24-34 days, stage XI : 28-36 days, stage XII (full-grown larvae) : 30-42 days and juvenile stage : 32-48 days.