Combined and Mono Sex Cultivation of Blue Swimming Crab
*(Portunus pelagicus* Linnaeus, 1758) for Broodstock Producing

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Abstract

Combined and mono sex cultivation of blue swimming crab for broodstock producing were conducted. The study was split into two culture sections, firstly on growing small crabs to adults, and secondly on culturing the mature size crabs to breed. Experimental culture in the first section composed of 3 treatments 1) combined sex with 1 male: 1 female ratio, 2) male mono sex, and 3) female mono sex cultivations, in which 40 days old young crabs were cultured for 90 days. Adult crabs obtained from the first section were used for continuing culture in the second section for 45 days with 2 treatments; 1) using crabs from combined sex cultivation, and 2) using crabs from mono sex cultivation.

From the first section experiment, it was found that male crabs from the mono sex culture had better growth than males from the combined sex culture. But females showed better growth in the combined sex culture than in the mono sex treatment. The survival rate was highest in the combined sex culture treatment which was 30.00±1.41% while that of the Mono sex culture was 34.50±7.78%.

The results from the second section experiment showed that female crabs in the mono sex cultivation yielded higher survival rate as well as higher percentage of egg-bearing females than those from the combined one. The average sizes of eggs at ready-to- hatch stage (black eggs) produced by the females from mono sex was 0.39±0.02 with the hatching rates of 39.57 ± 1.74 % while those from combined sex cultivation was 0.36 ± 0.03 mm with the hatching rate of 34.52 ± 3.05 %.

Results obtained from this study shall be concluded that mono sex cultivation is superior for producing broodstock of blue swimming crabs to combine sex cultivation.

Key words : Blue Swimming Crab (*Portunus pelagicus* Linnaeus, 1758), Broodstock Combined Sex, Mono Sex

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