

Pongamol Singkham 2009: Fecundity, Hatchability, Growth and Survival of Sesarmid Crabs (*Episesarma versicolor* Tweedie) Collected from Mangrove Area, The King's Royalty Initiated Leam Phak Bia Environmental Research and Development Project. Master of Science (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Professor Wit Tarnchalanukit, Ph.D. 142 pages.

The study on fecundity, hatchability, growth and survival of sesarmid crabs (*Episesarma versicolor* Tweedie) was conducted in mangrove area at Initiated Leam Phak Bia Environmental Research and Development Project and Fish Feed Technology Development Center, Kasetsart University. The 310 gravid sesarmid crabs females were collected randomly during June to August 2008. The crabs were measured and weighted, laid eggs were weighted and counted and the fertilized were hatched. The results showed that gravid females could be seen all year round but the peaks were in August-October and March-April. The mean fecundity was  $56,406 \pm 18,088$  eggs. The body weight - fecundity relationship and the body weight carapace length relationship were  $y = 1,738.7x + 12,489$  ( $R^2 = 0.2486$ ;  $p < 0.01$ ) and  $y = 2.2402x - 43.89$  ( $R^2 = 0.8149$ ;  $p < 0.01$ ), respectively. The water quality that related to hatchability and growth of larval stages was in optimal range.

The results obtained from the study can be used as a guide for managing the sesarmid crab to increase population and sustainability for fisherman in the area.

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Thesis Advisor's signature