1977

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Laviña, A. F. D., & Buling, A. S. (1977). The propagation of the mud crab Scylla serrata (F.) de Haan. SEAFDEC Aquaculture Department Quarterly Research Report, 1(2), 11.

http://hdl.handle.net/10862/2287

The propagation of the mud crab *Scylla serrata* (F.) de Haan

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The mud crab *Scylla serrata* is an important commercial species found in many brackish areas in the Philippines. During spawning and hatching, the berried females migrate to the sea. Seeds for pond stocking are obtained from the wild. Because of the unpredictability of seed supply, there is a need to propagate the species artificially. Thus, spawning, larval rearing, maturation, and rematuration of the species are being studied.

The first attempts at hatching *S. serrata* were successful with rates varying between 75% and 90%. Two out of three trials on larval rearing yielded a few megalops. The first zoeal stages were fed diatoms, rotifers, *Artemia salina,* and bread yeast. Overfeeding programs were implemented during the critical premolting periods to prevent weakening of the larvae and lessen cannibalism. Larval weakening during the premolt makes them susceptible to attacks by fungi like *Lagenidium* and ciliates like *Vorticella.*

S. serrata larvae survived salinity levels as low as 15 ppt until the 14th day of rearing. Other larvae were able to survive in salinities of 30-32 ppt for 8 to 13 days. Zoeal molting was hastened by lowering the salinity to 25-27 ppt.

Artificial broodstocking of juveniles and adult crabs has been made possible using a simple refuge system made of three-compartmented hollow blocks. This system has been helpful in minimizing fighting among crabs. Remarkable growth rates have been observed with feeds like mussel meat and trash fish. Average growth increments of 11 mm carapace length and 20.35 g body weight have been observed every fortnight. A newly spent spawner could gain additional weight of 22.5 g in only 6 days.

Feeding rates of juveniles and adult crabs have been established based on the average body weight from an experiment using mussel meat (Table 1). Crabs feed more at night.

Table 1. Feeding rate of juvenile and adult *S. serrata*

	Feedings rates (% total body weight)	
Weight range (g)	A.M.	P.M.
34-90	3.0	4.5
91-147	3.25	4.875
148-204	3.5	5.25
205-261	3.7	5.555
262-318	3.75	5.625
318-370	4.0	6.0