

AN EXPERIMENT ON HATCHERY SEED PRODUCTION OF THE SCALLOP  
*CHLAMYS SENATORIA* GMELIN

Jintana Nugranad & Kanchanee Promjinda  
*Prachuap Khiri Khan Coastal Aquaculture Development Center, Klong Wan,  
Prachuap Khiri Khan 77000, Thailand*

ABSTRACT

Breeding of the scallop *Chlamys senatoria* Gmelin was performed successfully in the Prachuap Khiri Khan Mollusc Hatchery. Spawning was induced by injection with 0.3-0.5 ml saline solution with 2 mM serotonin (5-Hydroxytryptamine creatinine sulphate) into either adductor muscle or gonad, or by sea water manipulation combined with air exposure methods. Fertilised eggs developed into the D-shaped larval stage within 18 hours. The larvae took 8-9 days to reach the pediveliger stage. Settlement and metamorphosis began after 10-11 days at a size between 220-240  $\mu$ m shell length. The survival from fertilisation to the D-shaped larval stage ranged from 2.5 to 66.9 %. Survival from D-shaped larvae to pediveligers was 0-38 %, and from pediveligers to one month old spat with 0.5-1.0 mm shell length about 5-10 %. Spat grew to 1-4 mm shell length at the age of 2 months and reached the size of 7-18 mm as young juveniles at 3 months of age, with approximately 40-50 % and 80-90 % survival, respectively.