

HATCHERY SEED PRODUCTION OF THE FLUTED GIANT CLAM  
(*TRIDACNA SQUAMOSA* LAMARCK, 1819) AND OCEAN NURSERY  
OF THE JUVENILES FOR RESTOCKING IN KOH TAO, THAILAND.

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ABSTRACT

Five batches of hatchery-produced juvenile fluted giant clam *Tridacna squamosa* were raised in Prachuap Khiri Khan Mollusc Hatchery. The largest batch encompassed more than 150,000 juveniles, 1-2 cm length. Spawning was either spontaneous or induced after a short-period of desiccation combined with sea water change. Zooxanthellae were collected from excretion of adult clams and supplied into rearing tanks from day 4 or 5 by when the veligers were transferred to outdoor culture tanks exposed to sunlight. Pediveligers established symbiosis from day 8, and completed metamorphosis at the age of two weeks. Thereafter, juveniles were reared in a concrete raceway with flowing sea water. Growth of the juveniles varied from batch to batch, as well as from tank to tank, mainly depending on management. High mortality occurred during metamorphosis, and subsequently in small juveniles prior to the size of 5 mm shell length due to overgrowth with benthic diatoms and algae in the rearing tanks. Herbivorous fish *Siganus* spp. were found effective to reduce this problem. Ocean nursery trials were conducted in coral reef area in Koh Tao in the Gulf of Thailand, using plastic net cages lined on sea floor with coral rubbles as substrate to raise the juveniles from 1.5 cm shell length. Juvenile transportation, nursery methods, results, and problems are discussed.