

## EXPERIMENTS ON USING HATCHERY-REARED JUVENILES TO ENHANCE STOCKS OF THE TOPSHELL *TROCHUS NILOTICUS* IN VIETNAM

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Trochus or topshell (*Trochus niloticus* Linne, 1767) is a mollusc commonly found in coral reefs in the Indo-Pacific, and is overexploited for its shell. One of the methods for recovering natural populations of Trochus is by artificial breeding and releasing larvae and juveniles to the wild. Artificial breeding has been successful at the Institute of Oceanography in Nha Trang, Vietnam. The artificial Trochus seeds were used for restocking based on community management at Ran Chao reef, 12°22'39''S and 109°18'18''E. Studies on the growth rate of Trochus at different cultured densities in cages showed that the appropriate rearing density was 100 individuals/m<sup>2</sup> for animals 10-22 mm of shell diameter; Trochus size from 25- 40 mm should be cultured at density less than 50 individuals/m<sup>2</sup>; and Trochus size 40 – 50 mm should be cultured at density less than 20 individuals/m<sup>2</sup>. Trochus larger than 50 mm shell diameter, should be reared at only 4 -7 individuals/m<sup>2</sup>. When they reached the size of 40-50 mm they were released to the reef for natural development in the wild. Suitable culture sites are coral reef, with less wave, high transparency, and availability of rubble or rock with algae. Cage culture is the most effective method because it is easier to manage and cages can protect the animals from wave, wind, and particularly predators. After 2 to 3 years of culture, Trochus reach market size and maturity. The results of this paper are still limited but this is the first study on this species in Vietnam and is the primary basis for stock enhancement of Trochus in Vietnam.