Rearing of juvenile donkey-ear abalone (Haliotis asinina) in flow-through tanks with the addition of different substrates / Dwi Eny Djoko Setyono

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Abstrak

ABSTRACT
This study investigated the effects of the addition of coral rubble and polyvinylchloride (PVC) guttering as substrates on the growth of the donkey ear abalone (Haliotis asinina) reared in a How through water system. The tanks were 100 cm long x 50 cm wide x 40 cm deep, filled with sea water up to a height of 30 cm. Hatchery produced abalone, with a mean initial shell length of 30.9 i 0.1 mm and wet weight of 5.51: 0.1 g. were stocked at 25 individuals per tank that corresponds to stocking densities of ca. 50 abalone m'2 at the bottom of the tank. Juvenile abalone were provided with plenty of red seaweed Gracilaria spp daily over 175 days. The results show that the growth and growth rates in shell length and wet body weight were not significantly different between treatments (P>0.05). Survival rates of juveniles reared in the tank with the addition of coral rubble and/or PVC guttering were 100%, but 98% for juveniles in the tank without the addition of substrate. The average daily growth rates of shell length and wet body weight were 0.08710037 mm and 008810.044 g for juveniles reared in the tank with coral rubble 0.08110030 mm and 0.07710032 g for juveniles reared in the tank with PVC guttering and 008210.032 mm and 007810.039 g for juveniles reared in the tank without substrates. Juveniles reared in tanks with a flow through water system grew very well. The increase of body weight was more than double (>250%) the initial size.