

Development and growth of larvae of the dog conch, *Strombus canarium* (Mollusca: Gastropoda), in the laboratory.

ABSTRACT

Strombus canarium egg masses used in this study were collected while still underneath spawning females, and embryonic and post-hatching larval development was observed in the laboratory. *Strombus canarium* larvae were reared at 200 larvae/L in 2-L containers with 0.22 μm filtered seawater medium at a salinity of 30 ± 1 PSU, and fed a single algal species, *Isochrysis galbana*, at 1000 cells/ml. Fecundity was estimated at $48,745 \pm 877$ to $93,643 \pm 1685$ ($n = 10$) eggs/egg mass. The incubation time Fecundity was estimated at $48,745 \pm 877$ to $93,643 \pm 1685$ ($n = 10$) eggs/egg mass. The incubation time $93.34\% \pm 1.68\%$ hatched, $n = 3$). The larvae have 2 velar lobes and 1.5 shell whorls at the time of hatching, with an average shell length of 216.77 ± 5.72 μm ($n = 10$). Based on prominent larval characters and visible morphological features, *S. canarium* larvae can be assigned to 4 different development stages, i.e. stages I, II, morphological features, *S. canarium* larvae can be assigned to 4 different development stages, i.e. stages I, II, hatching, and only metamorphosed when settlement cues (sediments from its natural habitat and 15 mM KCl) were introduced. They showed a short period of metamorphic competence, and no spontaneous metamorphosis was observed. Morphological changes and larval behaviors at the onset and during metamorphosis are also described.

Keyword: Veliger; Development; Metamorphosis; Malaysia.