

## 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  $\mu\text{m}$  filtered seawater medium at a salinity of  $30 \pm 1$  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  $216.77 \pm 5.72$   $\mu\text{m}$  ( $n = 10$ ). 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.