

Sexual maturity and sex determination in *Strombus canarium* Linnaeus, 1758 (Gastropoda: Strombidae).

ABSTRACT

The study was conducted at the Merambong Shoal, Johor Straits, Malaysia. *Strombus canarium* was the most abundant herbivorous mollusc within the study site, highly prized as seafood and contributes to the economics of the locals. Ontogenetic development of sex characters and sexual maturity were determined via logistic curve analysis, using shell-length and/or lip thickness as predictors. The minimum shell-length at which sex characters appeared was at 30 mm in males and 32 mm in females and both sexes can definitely be determined at more than 41 mm shell-length. The SX50 (probability of individuals can be sexed is 0.5) was at 38.33 ± 0.41 mm for male and at 37.15 ± 0.31 mm for female. The SL₅₀ (length at which the probability of individuals are matured is 0.5) was at 54.14 ± 0.86 mm shell-lengths for males and at 58.51 ± 1.02 mm shell-lengths for females. The LIP₅₀ (lip thickness at which the probability of individuals are matured is 0.5) values on the other hand was about 0.69 ± 0.0003 and 0.80 ± 0.014 mm for males and females respectively. The findings indicate that sexual dimorphisms occurred at very early stage in *S. canarium* life history

Keyword: Dog conch; Johor Straits; Malaysia; Sexual dimorphism; Logistic curve analysis.