

## Sexual polymorphism in a population of *Strombus canarium* Linnaeus, 1758 (Mollusca:Gastropoda) at Merambong Shoal Malaysia.

### ABSTRACT

Sexual polymorphism in a population of *Strombus canarium* Linnaeus, 1758 (Mollusca: Gastropoda) at Merambong Shoal, Malaysia. *Zoological Studies* 47 (3): 318-325. Various morphometric parameters of *Strombus canarium* Linnaeus, 1758 from Merambong Shoal, Malaysia, were measured and analyzed. The parameters include shell length, body whorl length, shell width, shell depth, shell lip thickness, aperture length, animal weight and shell weight. The population showed sexual polymorphism, and in addition to normal males and females, a 3rd morph composed of abnormal females with imposex characters were present. The latter(imposex females) accounted for 35.71% of the total adult female sub-population. Comparisons between males and normal females showed that the former had a significantly larger, heavier, and more-elongate shell than the latter. The male shells also had a significantly thicker lip with a higher degree of posterior and lateral lip flaring. Conversely, females allocated more energy into tissue production than shell deposition relative to males. The 3rd imposex morph had a significantly larger and heavier shell, and a higher degree of thickening and flaring of the lip compared with both male and normal female shells. Imposex females also allocated less energy to gonad production relative to tissue production compared to normal females.

**Keyword:** Dog conch; Allometric analysis; Polymorphism; Imposex.