

**UNIVERSITI TEKNOLOGI MARA**

**POPULATION STRUCTURE,  
MORPHOMETRICS AND DIET OF  
*Perisesarma eumolpe* (de Mann, 1895)  
AND *Tubuca rosea* (Tweedie, 1937) OF  
KUALA SELANGOR NATURE PARK,  
SELANGOR**

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## ABSTRACT

This study was conducted at the mangroves of the Kuala Selangor Nature Park, Selangor from March to May 2017. The aim of the study was to determine the population structure, morphometrics and diet of the brachyura. The transect line with quadrat sampling technique was used for sampling the brachyura. Brachyura were collected at daytime during ebbs of both spring and neap tides from five 1m x 1m sub-quadrats selected randomly within 5m x 5m quadrats placed equidistant to one another along a transect line. 604 brachyura were sampled within the sampling quadrats from 4 transect lines in the mangroves. The most abundant brachyura was *Perisesarma eumolpe* (n = 403) (4.03 ind/m<sup>2</sup>) followed by *Tubuca rosea* (n = 132) (1.32 ind/m<sup>2</sup>). Shannon-Weiner index was, H'=1.02, Margalef's species richness was, d=1.41 and Pielou's evenness was, J=0.16. The length-weight relationship showed that *P. eumolpe* growth was isometric but *T. rosea* showed negative allometric growth. *Perisesarma eumolpe* frequency was larger at the 10.51-15.51 mm size class interval while for *T. rosea* it was the 7.77-17.77 mm size class interval. *P. eumolpe* (13.12 ± 4.27 mm) carapace width was larger than that of *T. rosea* (12.35 ± 3.01 mm). *P. eumolpe* females (14.30 ± 3.90 mm) were significantly larger than males (13.12 ± 4.27 mm) (p<0.05) but there was no significant difference between males and females of *T. rosea* (p>0.05). Both species showed male bias for each of their populations. Diet analysis showed both species consumed higher amounts of plant matter while animal matter was a minor part of the diet. *P. eumolpe* is an opportunistic predator while *T. rosea* is a detritivore. Both brachyura species exhibited stable population structure but it was somewhat skewed for *P. eumolpe*.

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