

**Genetic variation among different morphotypes of the male freshwater prawn  
*Macrobrachium rosenbergii* (de Man)**

ABSTRACT

The genetic differences between the blue claw male (BC), orange claw male (OC) and small male (SM) morphotypes of male freshwater prawns were assessed using microsatellite DNA markers. Thirty individuals from each of the three groups of male prawns were collected from a hatchery rearing system in Port Dickson, Negeri Sembilan, Malaysia. Significant differences in growth were observed between the three groups. The total numbers of alleles per locus in the BC, OC and SM groups were found to be 23, 27 and 21, respectively from all loci. The average observed heterozygosities ( $H_o$ ) ranged from 0.48 to 0.56 across all loci in the three groups. The mean  $F_{IS}$  of  $-0.018$  indicated an excess of heterozygosity. The pair-wise comparisons and the  $F_{ST}$  values revealed significant genetic differentiation across the groups. The greatest genetic distance was observed between the BC and SM groups and lowest one was between the BC and the OC groups.

**Keyword:** Freshwater prawn; *Macrobrachium rosenbergii*; Male morphotypes; Genetic variation