

Sex ratio, spawning season and the size at maturity of *Parapenaeopsis sculptilis* (Heller 1862) in the coastal waters of Perak, Peninsular Malaysia

ABSTRACT

Parapenaeopsis sculptilis (Heller, 1862) locally referred to as “udang kulit keras” in Malaysia has profound biological, ecological, aquacultural and conservational significance. The reproductive biology of this important penaeid from the coastal waters of Perak, Peninsular Malaysia, was studied during the period between February 2012 to January 2013. Females outnumbered males with a sex ratio of M: F= 1:3 ($P < 0.05$). Four maturity stages of female gonads viz., immature, maturing, mature and spent stages were distinguished. The first stage of sexual maturity was attained at a length of 9.3 cm, and female *P. sculptilis* showed a peak gonadosomatic index during the month of April, August and October, indicating that *P. sculptilis* potentially breeds throughout the year. The findings of this study would greatly contribute towards the understanding of gonadal maturation, spawning season and breeding biology, which could be important for the effective population management of this prawn species.

Keyword: Gonadal maturation; *Parapenaeopsis sculptilis*; Sex ratio; Spawning season