

**Some aspects of reproductive biology of blue swimming crab (*Portunus pelagicus*  
(Linnaeus, 1758)) under laboratory conditions**

**ABSTRACT**

This study was carried out to observe and describe sexual dimorphism, reproductive system, macroscopic and histological gonad development and Gonado Somatic Index (GSI) of blue swimming crab (*P. pelagicus*) during post-spawning, spent spawner and berried female under laboratory conditions. The general sex dimorphism and reproductive system of male and female blue swimming crab were observed similar to be most other decapods crustaceans. The pubertal molt, the abdomen and gonopores of female show changes that are generally accepted as external morphological indications of sexual maturity. Unlike female, the males show prepubertal (loosing of the attachment of the abdominal flap to the cephalothorax) rather than pubertal molt. The ovaries and testes were classified into five and three development stages and the ovarian histology of each stage was characterized. The ovarian stages correlated closely with the Gonado Somatic Index (GSI), the characteristics of ovarian histology and oviposition period.

**Keyword:** Blue swimming crab; Gonad development; Gonado somatic index; *Portunus pelagicus*; Reproductive biology