

## **Gonad maturation of giant freshwater prawn, *Macrobrachium rosenbergii* at the bay of Padas River, Beaufort, Sabah, Malaysia**

### **ABSTRACT**

Giant freshwater prawn, *Macrobrachium rosenbergii* is a commercial species that is popular especially in Asian countries; Malaysia, Thailand, Indonesia and others. Currently, there is a decline in *M. rosenbergii* due to dependency on natural resources and intensive reduction of *M. rosenbergii*. Thus, this study provides new information on the gonad maturation of *M. rosenbergii* especially in Padas River Bay, Beaufort, Sabah, Malaysia. A total of 40 tails in *M. rosenbergii* (20 tails of male and 20 tails of female) were obtained from Kampung Inuman, Beaufort, Sabah. The gonads of *M. rosenbergii* were dissected out and the stages of gonad maturation were identified through the histological examination. The body length (BL), body weight (BW) and carapace length (CL) for male and female of *M. rosenbergii* were  $16.90 \pm 2.19$  cm,  $50.55 \pm 47.83$  g,  $8.14 \pm 1.84$  cm,  $14.97 \pm 2.22$  cm,  $27.14 \pm 23.04$  g and  $6.55 \pm 1.68$  cm. There were five gonad maturation stages recognized comprised of 40% male and 30% female categorized in immature stage (stage I and II) while 60% male and 70% female were in matured stage (stage III, IV and V). In addition, gonadosomatic index (GSI) was not significant for male, while it was significant for female. In conclusion, five maturation stages were found at the Bay of Padas River Beaufort, Sabah and the giant freshwater prawn can reproduce more than once in their life cycle as well as their reproduction occurs throughout the year.