

Gonadal histology of tiny scale barb, *Thynnichthys thynnoides* Bleeker 1852, during mass migration season in Rui River, Perak

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This study was conducted to evaluate the gonadal histology of tiny scale barb or locally known as “ikan loma”, *Thynnichthys thynnoides* Bleeker 1852, during the mass migration season in Rui River, Gerik, Perak. A total of 62 (46 males: 16 females) and 60 (44 males: 16 females) fish were randomly collected along the Rui River in Kampung Kuala Rui (downstream of Rui River) and Kampung Kerunai (midstream of Rui River), from October to December 2013. The collected fish gonads were separated, fixed in 10% formalin and processed for H&E staining. The results showed that female samples collected at Kampung Kuala Rui and Kampung Kerunai was at the stage of ripe and running period which indicated by higher percentage of vitellogenic oocytes compared to other stages of oocytes. Gonads collected from Kampung Kuala Rui demonstrated only massive number of vitellogenic oocytes than other type of oocytes with no presence of atretic oocytes, while all samples from Kampung Kerunai showed the presence of atretic oocytes with the mean at $9\pm 3\%$ from overall oocytes counted, indicating that the fish already released their eggs. The atretic oocytes are characterised by thick ovarian wall, non-oval, shrank and wrinkled shape with less yolk granules in the ooplasm. For male gonads, 100% of samples taken from Kampung Kuala Rui demonstrated ripe and spawning stage which indicated by compacted spermatozoa in seminiferous tubules. However, at Kampung Kerunai, 57% of the samples showed ripe and spawning stage while the other 43% demonstrated spent stage or post spawning characteristics which indicated by flaccid with hollow appearance of seminiferous tubules with little amount of spermatozoa in the tubules. As a conclusion, the results revealed that *T. thynnoides* migrated from Perak River into Rui River in order to spawn in the area between Kampung Kuala Rui and Kampung Kerunai.

Keywords: Gonadal histology, *Thynnichthys thynnoides*, mass migration, Rui River