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STRUKTUR HISTOLOGIS GONAD JANTAN DAN BETINA ***Macrobrachium pilimanus* De Man, 1879**

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INTISARI

Sampai saat ini belum banyak yang mengenal udang *Macrobrachium pilimanus* dan belum ada budidaya mengenai udang tersebut. Tujuan dari penelitian ini adalah untuk mempelajari struktur histologi gonad jantan dan betina dari udang *Macrobrachium pilimanus*. Penelitian ini menggunakan 3 ekor udang jantan dan 3 ekor udang betina. Semua udang diukur panjang tubuh, panjang karapaks, panjang total, serta lebar tubuh. Preparat histologi gonad dibuat dengan menggunakan metode parafin dan pewarnaan *Hematoxylin-Eosin* untuk deskripsi komparatif, menghitung jumlah oosit tahap oogonium, oosit primer, kortikal alveoli, vitellogenik, dan oosit matang serta pengukuran keliling folikel kortikal alveoli, vitellogenik, dan oosit matang pada udang *pilimanus* betina. Analisis kuantitatif digunakan dengan uji *One-Way ANOVA* dalam software SPSS ver.22. Hasil pengamatan struktur histologi gonad menunjukkan bahwa 6 udang *Macrobrachium pilimanus* yang terdiri dari 3 jantan dan 3 betina mempunyai gonad yang matang. Preparat histologis gonad betina tersusun dari oogonium, oosit primer, kortikal alveoli, vitellogenik, dan oosit matang. Sedangkan preparat histologis gonad jantan tersusun dari spermatogonium, spermatosit primer, spermatosit sekunder, spermatid, dan spermatozoa.

Kata kunci : Udang, *Macrobrachium pilimanus*, Histologi, Struktur, Gonad



HISTOLOGICAL STRUCTURE OF GONADAL MALE AND FEMALE *Macrobrachium pilimanus* De Man, 1879

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ABSTRACT

Shrimp is one of Indonesian export commodities for its high economical value. *Macrobrachium pilimanus* is one of freshwater shrimp that has high nutritional value, but until there is no cultivation effort for the *Macrobrachium pilimanus*. This research aims to study histological structure of male and female gonads of *Macrobrachium pilimanus* shrimp. These samples were consisting of 3 male and 3 female shrimps. All shrimps were measured for body length, length of carapace, total length, and body width. Histological preparations of gonads were prepared following standard Paraffin methods and stained with Hematoxylin-Eosin, for structure examination, calculation of the oogonium, primary oocytes, cortical alveoli, vitellogenic, and mature oocytes, and also calculating the perimeter of cortical alveoli, vitellogenic, and mature oocyte in female gonad. The data were analyzed for both qualitative and quantitative method. Qualitative analysis was conducted by description of histological structure of male and female gonad. Quantitative analysis performed by *One-Way* ANOVA in SPSS ver. 22. Result showed that 3 shrimp female gonads consist of oogonium, primary oocyte, cortical alveoli, vitellogenic, and mature oocyte. Male gonads consist of spermatogonia, primary spermatocytes, secondary spermatocytes, spermatids, and spermatozoa.

Keywords: Shrimp, *Macrobrachium pilimanus*, Histology, Structure, Gonad