

**STRUKTUR HISTOLOGIS INSANG, GINJAL, USUS DAN KULIT IKAN
MUJAIR (*Oreochromis mossambicus* Peters, 1852) DI DANAU ASIN
GILI MENO KABUPATEN LOMBOK UTARA**

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18/432401/PBI/01559

INTISARI

Gili Meno memiliki danau air asin dengan salinitas yang berkisar antara 40 – 45%. Ikan Mujair (*Oreochromis mossambicus*) di danau asin Gili Meno dapat bertahan hidup pada kondisi salinitas tersebut. Salinitas berhubungan erat dengan proses osmoregulasi dalam tubuh ikan. Organ yang berperan dalam proses tersebut antara lain insang, ginjal usus dan kulit. Tujuan dari penelitian ini adalah untuk mempelajari struktur histologis insang, ginjal, usus dan kulit ikan Mujair (*O. mossambicus*) di danau asin Gili Meno dan yang hidup di air tawar. Penelitian ini dilakukan dari bulan September 2019 hingga Juni 2020. Sampel ikan mujair diambil di danau asin Gili Meno dan kolam ikan Desa Mambalan. Pembuatan preparat histologis dilakukan menggunakan metode parafin dengan pewarnaan H&E, PAS AB dan MAF yang selanjutnya diamati menggunakan Leica DM 750 dengan kamera ICC 50. Data kemudian dianalisis secara kuantitatif dan deskriptif komparatif menggunakan uji *Independent T test* pada taraf signifikansi $P \leq 0,05$ dalam program IBM SPSS. Berdasarkan hasil penelitian yang didapatkan menunjukkan bahwa salinitas danau asin Gili Meno berkisar antara 50-51% dan pada kolam ikan Desa Mambalan berkisar 0% . Struktur histologis insang Mujair danau asin Gili Meno memiliki perbedaan struktur ditunjukkan dengan adanya nekrosis serta *lifting* pada epithelial insang. Ginjal ikan mujair tidak menunjukkan perbedaan struktur histologis, namun nilai rata-rata jumlah glomerulus lebih sedikit dan berbeda signifikan. Struktur histologis usus tidak menunjukkan perbedaan secara nyata, serta didapatkan rata-rata jumlah sel goblet yang terhitung tidak signifikan berbeda. Kemudian pada struktur histologis kulit terlihat adanya perbedaan distribusi kromatofor di area epidermis.

Kata Kunci: Histologi, *Oreochromis mossambicus*, Salinitas, Danau Asin Meno, Gili Meno

**HISTOLOGICAL STRUCTURE OF GILLS, KIDNEYS, GUTS, AND SKINS
OF MOZAMBIQUE TILAPIA (*Oreochromis mossambicus* Peters, 1852) IN
SALT LAKE OF GILI MENO NORTH LOMBOK REGENCY**

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ABSTRACT

Gili Meno has a salt water lake named lake Meno with salinity ranging from 40 - 45 ‰. Mozambique Tilapia (*Oreochromis mossambicus*) in lake Meno can survive in this salinity condition. Salinity is closely related to the osmoregulation process in the fish body. Organs that play a role in this process include gills, kidneys, gut and skin. This study aims to study the histological structure of the gills, kidneys, gut and skin of the Mozambique Tilapia (*O. mossambicus*) lives in salt lake of Gili Meno those that live in fresh water. This research was conducted from September 2019 to June 2020. Mozambique Tilapia were taken in salt lake of Gili Meno and Mambalan fish pond. The histological preparations were made using the paraffin method with H&E, PAS AB and MAF staining which were then observed using the DM 750 series Leica microscope with an ICC 50 E series camera. The data were analyzed quantitatively and descriptive comparatively using the Independent T test at a significance level of $P \leq 0.05$ in the IBM SPSS program. Based on the results obtained, it shows that the salinity of the Gili Meno salt lake ranges from 50-51 ‰ and in Mambalan fish ponds it is around 0 ‰. The histological structure of the gills of Mujair Gili Meno has a different structure as indicated by the presence of necrosis and epithelial lifting of the gills. The kidneys of tilapia did not show any difference in histological structure, but the mean value of the number of glomeruli was slightly less and differed significantly. The intestine histological structure did not show any significant difference, and the mean number of goblet cells was not significantly different. Then the histological structure of the skin shows a difference in the distribution of chromatophores in the epidermal area.

Kata Kunci: Histology, *Oreochromis mossambicus*, Salinity, Salt Lake Meno, Gili Meno