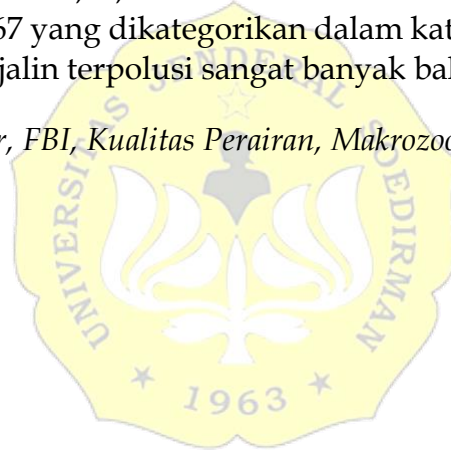


ABSTRAK

Waduk Penjalin difungsikan oleh masyarakat sekitar untuk beraktivitas seperti wisata, perikanan, pertanian, peternakan, MCK dan lain sebagainya. Aktivitas tersebut berpotensi menjadi sumber pencemaran yang akan mempengaruhi kondisi makhluk hidup di dalamnya, salah satunya yaitu makrozoobentos. Makrozoobentos dapat merespon pencemaran dan dapat digunakan sebagai bioindikator kualitas perairan di Waduk Penjalin. Tujuan dari penelitian ini adalah mengetahui nilai keanekaragaman, keseragaman, kepadatan, dan dominansi makrozoobentos, serta mengetahui tingkat pencemaran perairan berdasarkan nilai *Family Biotic Index* (FBI) makrozoobentos di Waduk Penjalin. Metode yang digunakan yaitu *purposive random sampling* dengan 9 stasiun penelitian yang didasarkan pada aktivitas masyarakat sekitar. Sampel makrozoobentos diambil menggunakan ekman grab yang kemudian diidentifikasi dan dianalisis. Hasil penelitian ditemukan 8 spesies makrozoobentos dengan rata-rata kepadatan 657 ind/m². Spesies yang paling banyak ditemukan adalah spesies *tubifex* sp. Nilai rata-rata keanekaragaman 1,28; rata-rata keseragaman 0,87; dan rata-rata dominansi 0,34. Nilai rata-rata FBI yang didapat adalah 6,67 yang dikategorikan dalam kategori buruk yang berarti perairan di Waduk Penjalin terpolusi sangat banyak bahan organik.

Kata Kunci: Bioindikator, FBI, Kualitas Perairan, Makrozoobentos



ABSTRACT

Penjalin Reservoir is used by the surrounding community for activities such as tourism, fishing, agriculture, farm, MCK and many others. That activity can become a potential source of pollution that will affect the conditions of living creatures within it, one of which is macrozoobenthos. Macrozoobenthos can respond to pollution and can be used as a bioindicator of water quality in the Penjalin Reservoir. The aim of this research is to determine the value of diversity, uniformity, density and dominance of macrozoobenthos, and to determine the level of water pollution based on the Family Biotic Index (FBI) value of macrozoobenthos in the Penjalin Reservoir. The method used was purposive random sampling with 9 stations based on the activities of the surrounding community. Macrozoobenthos samples were taken using an Ekman grab which were then identified and analyzed. The results 8 macrozoobenthos species found with an average of density is 657 ind/m². The most common species found were *Tubifex* sp. The average of diversity is 1.28; average of evenness is 0.87; and average of dominance is 0.34. The average of FBI value is 6.67 which was categorized as bad category which means that the waters in Penjalin Reservoir are highly polluted with organic matter.

Keyword: *Bioindicator, FBI, Macrozoobenthos, Water Quality*

