

ABSTRAK

Tiara Lara Sari, NIM 4193520014 (2023). Keanekaragaman Makrozoobentos di Sungai Tuntungan Kabupaten Deli Serdang

Makrozoobentos adalah hewan perairan yang dapat menjadi penentu kualitas perairan karena populasinya sangat dipengaruhi faktor lingkungan perairan. Penelitian ini dilakukan di Sungai Tuntungan Kabupaten Deli Serdang karena wilayah sungai tersebut terdapat banyak aktivitas masyarakat yang dapat mempengaruhi kondisi perairan di Sungai Tuntungan. Tujuan penelitian ini adalah untuk mencari hubungan sifat fisika-kimia air dengan dengan indeks keanekaragaman, dominansi dan keseragaman di Sungai Tuntungan. Penelitian ini termasuk jenis penelitian deskriptif kuantitatif. Wilayah penelitian dibagi menjadi 3 bagian sungai berdasarkan dugaan tingkat pencemaran. Pengambilan sampel dengan *purposive random sampling*. Perhitungan indeks keanekaragaman menggunakan rumus Shannon-Wiener indeks dominansi menggunakan indeks Simpson dan indeks keseragaman menggunakan indeks Evennes. Variabel diukur yaitu faktor lingkungan yang meliputi suhu, kedalaman, kecepatan arus, kecerahan, pH, TDS dan intensitas cahaya. Analisis hubungan antara keanekaragaman dengan variabel fisika-kimia menggunakan rumus pearson dengan menggunakan SPSS 22.0. hasil penelitian menunjukkan terdapat 127 individu makrozoobentos yang terdiri dari 2 filum dan 7 ordo. Indeks keanekaragaman Sungai Tuntungan termasuk kategori sedang. Analisis korelasi pearson menunjukkan adanya korelasi sangat kuat dengan variabel kedalaman, kecepatan arus, kecerahan, pH dan TDS korelasi kuat dengan variabel Suhu dan korelasi lemah dengan variabel Intensitas Cahaya.

Kata Kunci : Keanekaragaman, Sungai Tuntungan, sifat fisika-kima air

ABSTRACT

Tiara Lara Sari, NIM 4193520014 (2023). Macrozoobenthos diversity in the Tuntungan River, Deli Serdang Regency

Macrozoobenthos are aquatic animals that can determine water quality because their populations are strongly influenced by environmental factors. This research was conducted on the Tuntungan River, Deli Serdang Regency because in this river area there are many community activities that can influence the condition of the waters in the Tuntungan River. The aim of this research is to find the relationship between the physico-chemical properties of water and the indices of diversity, dominance and uniformity in the Tuntungan River. This research is a type of quantitative descriptive research. The research area was divided into 3 river sections based on the suspected level of pollution. Sampling was taken using purposive random sampling. The diversity index calculation uses the Shannon-Wiener formula, the dominance index uses the Simpson index and the uniformity index uses the Evenness index. Variables measured include temperature, depth, current speed, brightness, pH, TDS and light intensity. Analysis of the relationship between diversity and physico-chemical variables using the Pearson formula using SPSS 22.0. The research results showed that there were 127 macrozoobenthos individuals consisting of 2 phyla and 7 orders. The diversity index of the Tuntungan River is in the medium category. Pearson correlation analysis shows that there is a very strong correlation with the variables depth, current speed, brightness, pH and TDS, a strong correlation with the temperature variable and a weak correlation with the light intensity variable.

Keywords: *Diversity, Tuntungan River, physico-chemical properties of water*