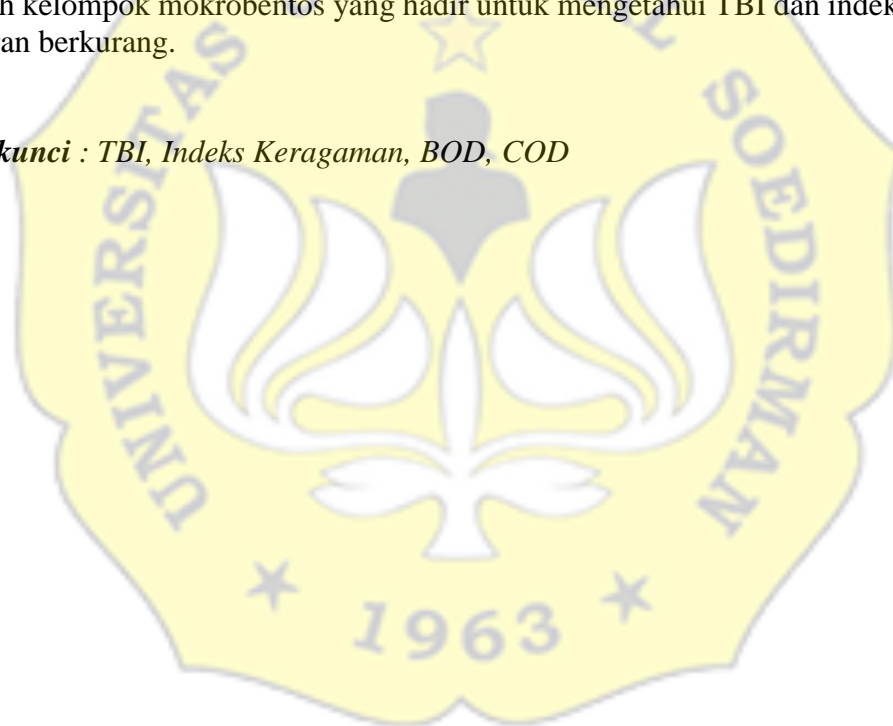


ABSTRAK

TBI dan indeks keragaman dengan BOD dan COD digunakan untuk monitoring kualitas air namun BOD dan COD lebih cenderung kearah cemaran organik. Penelitian ini bertujuan untuk mengetahui besarnya BOD dan COD di Sungai Logawa, untuk mengetahui nilai Indeks Keragaman dan Nilai TBI di Sungai Logawa dan untuk mengetahui hubungan antara BOD dan COD dengan Indeks Keragaman dan Nilai TBI. Penelitian ini menggunakan metode *purposive random sampling* yang dianggap telah mewakili daerah penelitian. Badan Sungai Logawa dibagi menjadi 5 stasiun pengamatan. Stasiun pertama berada di desa Sunyalangu , stasiun kedua di desa Babakan, stasiun ketiga di desa Pasirlor, stasiun keempat di desa Kediri dan stasiun kelima di desa Kedungwringin. Hasil penelitian menunjukkan bahwa nilai BOD di Sungai Logawa dari Hulu ke Hilir berkisar 2,47 mg/L - 11,39 mg/L. Nilai COD di Sungai Logawa dari Hulu ke Hilir berkisar 21,25 mg/L - 43,77 mg/L. Nilai Indeks Keragaman di Sungai Logawa dari Hulu ke Hilir berkisar 0,425848 - 1,72982. Nilai TBI di Sungai Logawa dari Hulu ke Hilir berkisar 5 – 8. Semakin tinggi jumlah BOD dan COD dalam suatu perairan maka jumlah kelompok makrobentos yang hadir untuk mengetahui TBI dan indeks keragaman perairan berkurang.

Kata kunci : TBI, Indeks Keragaman, BOD, COD



ABSTRACT

TBI and diversity index with BOD and COD are used for water quality monitoring, but BOD and COD are more likely to lead to organic contamination. This research aims to determine the magnitude of BOD and COD in the Logawa River, to know the value of Diversity Index and TBI Value in Logawa River and to know the relationship between BOD and COD with Diversity Index and TBI Value. This research use purposive random sampling method which is considered to have represented the research area. River Logawa Basin is divided into 5 observation stations. The first station is in the village of Sunyalangu, the second station in Babakan village, the third station in Pasirlor village, the fourth station in Kediri village and the fifth station in Kedungwringin village. The results showed that BOD value in Logawa River from headwaters to downstream was about 2.47 mg / L - 11.39 mg / L. COD values in the Logawa River from headwaters to downstream ranged from 21.25 mg / L - 43.77 mg / L. The Diversity Index value in the Logawa River from headwaters to downstream ranged from 0.425848 - 1.72982. The value of TBI in the Logawa River from headwaters to downstream ranged 5 - 8. The higher the number of BOD and COD in a waters, the number of macrobentos groups present to know the TBI and the aquatic diversity index is reduced.

Keywords: *TBI, Diversity Index, BOD, COD*

