

Intisari

STUKTUR KOMUNITAS MAKROBENTOS DI SUNGAI OYO KAPANEWON IMOGIRI KABUPATEN BANTUL

Struktur komunitas makrobentos merupakan informasi penting dalam pengelolaan kualitas air sebagai indikator biologi dari ekosistem suatu perairan. Penelitian ini bertujuan untuk mengetahui struktur komunitas makrobentos di Sungai Oyo. Sampel diambil setiap dua kali dalam satu bulan. Pada bulan Februari hingga April. Setiap sampel diukur suhu, salinitas, *pH*, TDS (*Total Dissolve Solid*), bahan organik, kecerahan, kedalaman, kecepatan arus serta kelimpahan, keanekaragaman, keseragaman dan dominansi makrobentos. Dari hasil penelitian didapatkan enam spesies. Empat spesies dari kelas Gastropoda dan dua spesies dari kelas bivalvia. Suhu tertinggi terdapat pada stasiun I sebesar $30,23 \pm 0,45^{\circ}\text{C}$. salinitas tertinggi terdapat pada stasiun I dan II sebesar $0,15 \pm 0,02 \%$. *pH* tertinggi terdapat pada stasiun I sebesar $7,80 \pm 0,25$. TDS (*Total Dissolve Solid*) tertinggi terdapat pada stasiun I sebesar $144,54 \pm 31,61 \text{ mg/L}$. Bahan organik tertinggi terdapat pada stasiun I sebesar $21,59 \pm 3,45 \text{ mg/L}$. kecerahan tertinggi terdapat pada stasiun IV sebesar $0,64 \pm 0,07 \text{ m}$. Kedalaman tertinggi terdapat pada stasiun IV sebesar $1,45 \pm 0,26 \text{ m}$. kecepatan arus tertinggi terdapat pada stasiun I sebesar $0,31 \pm 0,04 \text{ m/s}$. kelimpahan tertinggi terdapat pada stasiun I sebesar $7,38 \pm 0,72 \text{ ind/m}^2$. Keanekaragaman tertinggi terdapat pada stasiun I, II dan III sebesar $0,17 \pm 0,11$. Keseragaman tertinggi terdapat pada stasiun I sebesar $0,27 \pm 0,05$. Dominansi tertinggi terdapat pada stasiun IV sebesar $0,61 \pm 0,27$. Bahan organik berkorelasi positif terhadap kelimpahan namun berkorelasi negatif terhadap keanekaragaman makrobentos. Sedangkan kedalaman berkorelasi negatif terhadap kelimpahan dan keanekaragaman makrobentos di Sungai Oyo.

Kata kunci: bahan organik, keanekaragaman, kelimpahan, keseragaman, dominansi

Abstract

COMMUNITY STRUCTURE OF MAKROBENTHOS IN OYO RIVER IMOGIRI SUB-DISTRICT BANTUL REGENCY

Macrobenthos community structure is important information in water quality management as a biological indicator of a water ecosystem. This study aims to determine the community structure of macrobenthos in the Oyo River. Samples were taken twice a month. From February to April. Each sample measured temperature, salinity, pH, TDS (Total Dissolve Solid), organic matter, brightness, depth, current speed as well as abundance, diversity, uniformity, and dominance of macrobenthos. The results of the study obtained six species. Four species from the Gastropoda class and two species from the bivalve class. The highest temperature was found at station I by $30.23 \pm 0.45^{\circ}\text{C}$. the highest salinity was found at stations I and II by $0.15 \pm 0.02 \text{ ‰}$. the highest pH was found at station I by 7.80 ± 0.25 . TDS (Total Dissolve Solid) is highest at station I by $144.54 \pm 31.61 \text{ mg/L}$. The highest organic matter is found at station I by $21.59 \pm 3.45 \text{ mg/L}$. The highest brightness is found at station IV at $0.64 \pm 0.07\text{m}$. The highest depth is found at station IV by $1.45 \pm 0.26 \text{ m}$. The highest current speed is found at station I by $0.31 \pm 0.04 \text{ m/s}$. The highest abundance is found at station I by $7.38 \pm 0.72 \text{ ind/m}^2$. The highest diversity was found at stations I, II, and III by 0.17 ± 0.11 . The highest uniformity is found at station I by 0.27 ± 0.05 . The highest dominance is found at station IV by 0.61 ± 0.27 . Organic matter is positively correlated with abundance but negatively correlated with macrobenthos diversity. While depth is negatively correlated to the abundance and diversity of macrobenthos in the Oyo River.

Keywords: *organic matter, diversity, abundance, uniformity, dominance*