

Intisari

Penilaian Kualitas Air Kali Kuning di Kabupaten Sleman Berdasarkan Indeks Biotik Famili Makrobentos

Makrobentos merupakan organisme yang hidup di dasar perairan dan dapat merespon perubahan kondisi perairan. Indeks biotik famili makrobentos digunakan untuk mengetahui kualitas air dengan mengelompokkan taksa berdasarkan nilai toleransi terhadap kondisi perairan. Tujuan dari penelitian ini untuk mengetahui kualitas air Kali Kuning berdasarkan nilai indeks biotik famili makrobentos. Penelitian dilakukan dari tanggal 30 Oktober-16 Desember 2024 dengan terdapat lima lokasi stasiun yang berada dari hulu hingga hilir Kali Kuning Kabupaten Sleman. Parameter kualitas air yang diamati berupa suhu, pH, oksigen terlarut, bahan organik, kedalaman air, dan kecepatan arus. Hasil penelitian didapatkan makrobentos sebanyak 1.027 individu dari 15 spesies yang termasuk dalam 13 famili dan 4 kelas. Tingginya nilai indeks biotik famili dapat dikarenakan masuknya limbah domestik, limbah rumah tangga, limbah pertanian, dan limbah budidaya perikanan ke dalam aliran sungai. Nilai indeks biotik famili yang didapatkan sebesar 4,75-6,0 yang termasuk dalam kategori baik hingga agak buruk, sehingga menunjukkan bahwa perairan Kali Kuning Kabupaten Sleman dalam kondisi kemungkinan adanya polusi organik hingga kemungkinan terjadinya polusi besar.

Kata kunci: indeks biotik famili, Kali Kuning, kualitas air, makrobentos.

Abstract

Water Quality Assessment in Kuning Stream, Sleman Regency based on Family Biotic Index of Macroenthos

Macroenthos are organisms that live at the bottom of the waters and can respond to changes in water conditions. The macroenthos family biotic index is used to determine water quality by grouping taxa based on tolerance values to water conditions. The purpose of this study was to determine the water quality of Kuning Stream based on the macroenthos family biotic index value. The study was conducted from October 30 to December 16, 2024, with five station locations located from upstream to downstream of Kuning Stream, Sleman Regency. The water quality parameters observed were temperature, pH, dissolved oxygen, organic matter, water depth, and current speed. The results of the study obtained 1,027 macroenthos individuals from 15 species included in 13 families and 4 classes. The high value of the family biotic index can be due to the entry of domestic waste, household waste, agricultural waste, and fishery cultivation waste into the river flow. The family biotic index value obtained was 4.75-6.0, which is included in the good to rather bad category, indicating that the waters of Kuning Stream, Sleman Regency, are in a condition of possible organic pollution with the possibility of major pollution.

Keywords: family biotic index, Kuning Stream, macroenthos, water quality.