Intisari

Keanekaragaman Makrozoobentos di Kawasan Konservasi Mangrove Baros Kabupaten Bantul

Mangrove Baros merupakan kawasan hutan mangrove buatan yang tumbuh pada wilayah estuari pertemuan antara air dari Pantai Selatan Jawa dengan muara Sungai Opak. Penelitian ini bertujuan untuk mengetahui keanekaragaman dan kelimpahan makrozoobentos serta hubungannya dengan kualitas air di kawasan konservasi Mangrove Baros, Kabupaten Bantul. Penelitian ini dilaksanakan selama 2 bulan dari bulan Desember 2021 hingga Januari 2022 pada kawasan konservasi Mangrove Baros. Sampel makrozoobentos diambil pada plot ukuran 1x1 m sebanyak 5 plot pada setiap stasiun penelitian. Sampel disaring menggunakan saringan, selanjutnya diawetkan menggunakan alkohol 70%. Pengukuran sampel air menggunakan *Water Quality Checker* (WQC) dan titrasi di Sublaboratorium Ekologi Perairan, Departemen Perikanan, UGM. Indeks ekologi yang dianalisis meliputi kelimpahan makrozoobentos. keanekaragaman, dominansi, dan keseragaman. Data kualitas air yang diukur meliputi kecerahan, suhu, pH, salinitas, oksigen terlarut, dan bahan organik. Hubungan antara kelimpahan makrozoobentos dengan parameter fisika-kimia perairan dengan analisis linear berganda. Hasil pengukuran kualitas air meliputi kecerahan air 16,44-19,36 cm; suhu 15,72-26,42 ºC; pH 6,49-6,57; salinitas 0,65-0,82 ‰; oksigen terlarut 2,21-2,54 mg/L; bahan organik 18,03-24,04 ppm. Kelimpahan makrozoobentos berkisar antara 19,03-19,73 ind/m2 ; indeks keanekaragaman berkisar antara 1,462-1,487; indeks keseragaman berkisar antara 0,635-0,646; dan indeks dominansi berkisar antara 0,245-0,239. Kelimpahan makrozoobentos di kawasan konservasi Mangrove Baros dipengaruhi parameter fisika-kimia perairan yang meliputi suhu perairan, pH, bahan organik, dan salinitas. Kelompok Pemuda Pemudi Baros dapat membatasi kegiatan selain konservasi untuk menjaga keanekaragaman jenis makrozoobentos. Penelitian selanjutnya dapat menambah parameter fisika-kimia lainnya seperti nitrat dan fosfat serta menambah waktu penelitian selama dua minggu sekali.

Kata kunci : keanekaragaman, kelimpahan, kualitas air, makrozoobentos, Mangrove Baros

Abstract

Diversity of Macrozoobenthos in the Mangrove Conservation Area
Baros Bantul Regency

Baros Mangrove is an artificial mangrove forest area that grows in the estuary area of the meeting between water from the South Coast of Java and the mouth of the Opak River. Study aims to determine the diversity and abundance of macrozoobenthos and their relationship with water quality in the conservation area of Baros Mangrove, Bantul Regency. This research was conducted for 2 months from December 2021 to January 2022 in the conservation area of Baros Mangrove. Macrozoobenthos samples were taken on a 1x1 m size plot with 5 plots at each research station. Sample was filtered using a strainer, then preserved using 70% alcohol. Measurement of water samples using Water Quality Checker (WQC) and titration at the Sublaboratory of Water Ecology, Department of Fisheries, UGM. Ecological indices analyzed include abundance of macrozoobentos. diversity, dominance, and uniformity. Measured water quality data include brightness, temperature, pH, salinity, dissolved oxygen, and organic matter. Relationship between the abundance of macrozoobentos with physico-chemical parameters of waters by multiple linear analysis. Result of water quality include water brightness 16,44-19,36 cm; temperature 15,72-26,42 ºC; pH 6,49-6,57; salinity 0,65-0,82 ‰; dissolved oxygen 2,21-2,54 mg/L; organic matter 18,03-24,04 ppm. Result of ecology index include abundance of macrozoobenthos 19-20 ind/m2; diversity index 1,462-1,487; uniformity index 0,635-0,646; and the dominance index 0,245-0,239. Abundance of macrozoobenthos in the conservation area of Baros Mangrove is influenced by aquatic physico-chemical parameters including aquatic temperature, pH, organic matter, and salinity. KP2B can limit activities other than conservation to preserve the diversity of macrozoobenthos.

Keywords: abundance, Baros Mangrove, diversity, macrozoobenthos, water quality