

ABSTRAK

STRUKTUR KOMUNITAS MAKROZOOBENTOS SEBAGAI BIOINDIKATOR KUALITAS AIR PADA HILIR SUNGAI WAY SUKAMAJU, TELUK BETUNG TIMUR, BANDAR LAMPUNG.

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Makrozoobentos dapat digunakan sebagai indikator biologis di suatu perairan karena hewan ini mempunyai habitat hidup relatif tetap, pergerakannya terbatas, serta kemampuannya untuk mengakumulasi bahan pencemar di dalam tubuhnya. Aliran Sungai Way Sukamaju masih dimanfaatkan masyarakat sekitar untuk berbagai aktivitas antropogenik, seperti MCK (mandi, cuci dan kakus) dan kegiatan industri. Tujuan dari penelitian ini yaitu mengkaji kondisi kualitas air berdasarkan struktur komunitas makrozoobentos serta menganalisis hubungan faktor fisika - kimia perairan dengan keberadaan makrozoobentos di hilir Sungai Way Sukamaju, Teluk Betung Timur, Bandar Lampung. Penelitian ini dilaksanakan pada bulan Agustus - September 2022 di aliran Sungai Way Sukamaju, Kecamatan Teluk Betung Timur, Bandar Lampung. Metode yang digunakan *family biotic index* (FBI), *stream invertebrate grade number average level 2* (SIGNAL 2) dan *principal component analysis* (PCA). Parameter fisika dan kimia yang diukur di antaranya suhu, kecerahan, kedalaman, pH, *dissolved oxygen* (DO), dan *biological oxygen demand* (BOD). Berdasarkan hasil yang diperoleh, diketahui bahwa jenis makrozoobentos di aliran Sungai Way Sukamaju terdiri dari 5 kelas, yaitu kelas insekta, krustasea, clitellata, turbellaria, dan gastropoda. Jenis yang paling banyak ditemui berasal dari kelas gastropoda dengan 15 genus, di antaranya genus *Neritina* dan *Pomacea*.

Kata Kunci: Makrozoobentos, struktur komunitas, bioindikator.

ABSTRACT

THE MACROZOOBENTOS COMMUNITY STRUCTURE AS A BIOINDICATOR OF WATER QUALITY IN WAY SUKAMAJU DOWNSTREAM, TELUK BETUNG TIMUR, BANDAR LAMPUNG.

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Macrozoobenthos can be used as a biological indicator in waters because these animals have a relatively fixed living habitat and limited movement, as well as their ability to accumulate contaminants in their bodies. The flow of the Way Sukamaju River is still used by the surrounding community for various anthropogenic activities, such as (public bathing, washing, toilet facilities) and industrial activities. The purpose of this study was to examine the condition of water quality based on the community structure of macrozoobenthos and to analyze the relationship between physical and chemical factors in the waters and the presence of macrozoobenthos in the Way Sukamaju River, East Betung Bay, Bandar Lampung. This research was conducted in August - September 2022 in the Way Sukamaju River, Teluk Betung Timur, Bandar Lampung. The methods used were family biotic index (FBI), stream invertebrate grade number average level 2 (SIGNAL 2) and principal component analysis (PCA) with physical and chemical parameters measured including: temperature, brightness, depth, pH, dissolved oxygen (DO), and biological oxygen demand (BOD). Based on the results obtained, the types of macrozoobenthos in the Way Sukamaju river flow consisted of 5 classes, namely insect, crustacean, clitellata, turbellaria, and gastropod. The most common species were from the gastropod class with 15 genus, including the genus *Neritina* and *Pomacea*.

Keywords: Macrozoobenthos, community structure, bioindikator.