ABSTRAK

Aulin Friskila, NIM 4183520012 (2018). Hubungan Antara Karakteristik Subtrat Dengan Struktur Komunitas Makrozoobentos Sungai Belumai, Sumatera Utara.

Penelitian ini bertujuan untuk mengetahui hubungan antara karakteristik substrat dengan struktur komunitas makrozoobentos. Penelitian ini menggunakan metode deskriptif kuantitatif, dengan komponen yang dianalisis yaitu indeks ekologi (indeks keanekaragaman, indeks kesamaan, dominansi), indikator fisika – kimia dan test chi – square pada spss. Dari hasil penelitian ditemukan 4 famili dari kelas Gastropoda yaitu *Thiaridae, Pleuroceridae*, *Viviparidae* dan *Physidae*. Kelas Insecta 3 famili yaitu *Dytiscidae*, *Gomphidae* dan *Protoneuridae*. Kelas Malacostraca 1 famili yaitu *Palaemonidae*. Kelas Oligochaeta 2 famili yaitu *Tubificidae* dan *Lumbricidae*. Kelas Clitellata 1 famili yaitu *Lumbriculidae*. Hasil indeks ekologi : (H') = 1,24 – 2,18, (E) = 0,64 – 0,94, © = 0,13 – 0,43. Hasil pengukuran indikator fisika yaitu suhu dengan rata-rata 27,8 ^{0}C, rata-rata kedalaman 51,9, rata – rata kecerahan air 15,75 cm, rata – rata kecepata arus 0,5 m/s, jenis substrat stasiun I dan IV berpasir, stasiun II dan III lempung berpasir. Hasil indikator kimia yaitu rata – rata pH = 6,68, rata – rata DO = 4,73 mg/l. Kandungan kadar organik sekitar 3,78 – 7,12%. Hasil menunjukkan bahwa terdapat hubungan antara karakteristik substrat dengan komunitas makrozoobentos.

Kata kunci: hubungan, indeks ekologi, makrozoobentos, parameter fisika-kimia, substrat.

ABSTRACT

Aulin Friskila, NIM 4183520012 (2018). Relationship Between The Characteristic of Substrate with Structure of Makrozoobenthos Community at Belumai River, North Sumatera.

This study was conducted to determine the relationship between the characteristic of substrate with structure of makrozoobenthos community at Belumai River, North Sumatera. The data was analyzed using quantitative methods, with components analyzed namely ecological index (diversity index, similarity index, dominance), physical-chemical indicators and chi-square test on SPSS. The results of the study found 4 families from the Gastropoda class, namely *Thiaridae*, *Pleuroceridae*, *Viviparidae* and *Physidae*. Class Insecta 3 families namely *Ditiscidae*, *Gomphidae* and *Protoneuridae*. Class Malacostraca 1 family, namely *Palaemonidae*. Class Oligochaeta 2 families namely *Tubificidae* and *Lumbricidae*. Class Clitellata 1 family namely *Lumbriculidae*. Ecological index results: (H') = 1.24 - 2.18, (E) = 0.64 - 0.94, (C) = 0.13 - 0.43. The results of the physics indicator measurements are the average temperature of 27.8 0C, the average water depth of 51.9, the average water brightness is 15.75 cm, the average water current speed is 0.5 m/s, the type of station substrate I and IV are sandy, stations II and III are sandy loam. The results of chemical indicators are the average pH = 6.68, the average DO = 4.73 mg/l. The organic content is around 3.78 – 7.12%. The results show that there is a relationship between the characteristics of the substrate and the macrozoobenthic community.

Keywords: relationship, ecological index, macrozoobenthos, physical-chemical parameters, substrate.