ABSTRAK

Muhrijal Ahmad. NPM 05181911005. Karakteristik Dan Kelimpahan Mikroplastik Pada Saluran Pencernaan Beberapa Spesies Teripang Di Kawasan Konservasi Pulau Moti Dan Pulau Tidore. Dibimbing oleh Halikuddin Umasangadji, S.Pi, M.Si, Ph.D dan Dr. Yunita Ramili, S.Pi, M.Si.

Mikroplastik merupakan partikel dengan ukuran < 5 mm dan berada di lingkungan air laut dan air tawar. Penelitian ini bertujuan untuk mengidentifikasi karakteristik dan analisis kelimpahan pada saluran pencernaan beberapa spesies teripang di kawasan konservasi Pulau Moti dan Pulau Tidore. Penelitian ini dilaksanakan pada bulan Maret 2023. Data dilakukan dengan pengambilan sampel di Pulau Moti Kelurahan Tafamutu dan Figur.dan di Pulau Tidore Kelurahan Gurabati dan Tomalou, dan analisis sampel di Laboraturium Bioekologi Sumberdaya Perairan Fakultas Perikanan dan Ilmu Kelautan, Universitas Khairun Ternate. Data primer meliputi panjang teripang, berat teripang dan karakteristik mikroplastik ditiap-tiap sampel. Sampel yang telah diperoleh, ukur panjang dan berat saluran pencernaan teripang terlebih dahulu. Sampel dibedah dan diuji pada keempat lokasi tersebut. Sampel diindentifikasi melalui pengamatan dibawah mikroskop digital dengan magnifikasi 100x terpasang melalui software cooling tech (drive USB mikroskop/FCC/RoHS bersertifikat). Hasil identifikasi karakteristik mikroplastik diperoleh jenis fiber, fragmen, film, pellet dan granul dengan warna merah, hijau, putih, merah muda, coklat, orens dan biru. Jenis mikroplastik yang sering dijumpai yakni jenis pellet di lokasi pertama, yang dimana untuk lokasi Moti Tafamutu sebanyak 43%, dan yang sering dijumpai yakni jenis fragmen di lokasi kedua, yang dimana untuk Moti Figur sebanyak 51%, dan yang sering dijumpai yakni jenis fragmen di lokasi ketiga, yang dimana untuk lokasi Tidore Gurabati sebanyak 49%, dan yang sering dijumpai yakni jenis fragmen di lokasi keempat, yang dimana untuk lokasi Tidore Tomalou sebanyak 56%. Kelimpahan mikroplastik yang ditemukan pada saluran pencernaan beberapa spesies teripang memiliki rata-rata Moti Tafamutu 209,66% partikel/individu, Moti Figur 194,06% partikel/individu,Tidore Gurabati 176,4% partikel/individu,Tidore Tomalou 162,86 partikel/individu. Disarankan perlu dilakukan penelitian lanjutan untuk memperdalam kajian mikroplastik pada saluran pencernaan teripang jenis lainya.

Kata Kunci : Mikroplastik, saluran pencernaan teripang,karakteristik MPs .

ABSTRACT

Muhrijal Ahmad. NPM 05181911005. *Characteristics and Abundance of Microplastics in the Digestive Tracts of several Spesies of sea Cucumbers in the Moti Island and Tidore Island Conservation Areas.Supervised by* Halikuddin Umasangadji, S.Pi, M.Si, Ph.D *and* Dr. Yunita Ramili, S.Pi, M.Si.

Microplastics are particles with a size of 5 mm and are found in seawater and reshwater environments. This research aims to identify the characteristic and analysis of abudance in the digestive tract of several species of sea cucumbers in the conservation areas of Moti Island and Tidore Island. This research was carried out in March 2023. Data was carried out by taking samples om Moti Island, Tafamutu and Figur Villages, and on Tidore Island, Gurabati and Tomalou Villages, and sample analysis at Aquatic Resource Bioecology laboratory, Faculty of Fisheries and Marine Sciences, Khairun University of Ternate. Primary data includes sea cucumber length, sea cucumber weight and microplastic characteristics in each sample. Once the sample has been obtained, measure the length and weight of the sea cucumbers digestive tract first. Sample were dissected and tested at these four locations. The samples were identified through observation under digital microscope with a 100 x magnification installed via cooling tech software (microscope USB drive/FCC/RoHS certified). The results of identifying the characteristics of microplastics were fiber, fragmen, film, pellet and granule types with red, green, white, pink clors, brown, orange, and blue. The type of microplastics that is often found is the pellet type at the first location, wich is 43% for the Tafamutu in Moti Island, and what is often found is fragment type at the second location, which is 51% for Figur in Moti Island , and what is often found is the fragment type at third location, which is where for the Gurabatti in Tidore Island it was 49%, and what was often found was the type of fragment in the fourth location, which for the Tomalou in Tidore Island was 56%. The abudance of microplastics found in the digestive tract of several sea cucumber species has an average Tafamutu in Moti Island of 202,66% particles/individual, Figur in Moti Island 194,06% particles/individual, Gurabati in Tidore Island of 176,4%particles/individual, Tomalou in Tidore Island of 162,86%particles/individual. It is recommended in the digestive tract of other types sea cucumbers.

***Keywords** : Microplastics, sea cucumber digestive tract characterictics of MPs*