

RINGKASAN

RICHARDO E. MANUEL BULAN (19390021). Analisis Kelimpahan Mikroplastik Pada Garam Krosok Di UD Abaraham Desa Oli'o Kabupaten Kupang : YUNIALDI H. TEFFU, S.Pi, M.Si., DEWI S. GADI, S.Pi, M.Si sebagai Pembimbing I dan Pembimbing II. Program Studi Teknologi Hasil Perikanan, Fakultas Perikanan dan Ilmu Kelautan Universitas Kristen Artha Wacana Kupang.

Pembuatan garam rakyat merupakan kegiatan yang dilakukan oleh rakyat yang telah menjadi rutinitas tahunan sebagai mata pencaharian. UD. Abaraham yang berlokasi di Desa Oli'o, Kecamatan Kupang Timur, Kabupaten Kupang melakukan produksi menggunakan bahan baku garam krosok. Mikroplastik merupakan potongan plastik kecil yang dapat mencemari lingkungan. Polusi sampah plastik menjadi ancaman terhadap kondisi laut saat ini, secara global produksi sampah plastik meningkat drastis setiap tahunnya. Perkiraan produksi plastik dunia mencapai 322 juta ton pada tahun 2015, dimana 5 sampai 13 juta ton diperkirakan berakhir di lingkungan perairan. Tentunya pencemaran dan pemanfaatan berlebihan berdampak pada keanekaragaman.

Penelitian ini dilaksanakan pada Bulan Oktober-November 2023 yang bertempat di Desa Oli'o Kabupaten Kupang untuk lokasi survei dan pengambilan sampel, kemudian pengujian Boume meter ($^{\circ}\text{Be}$), salinitas, pH. Untuk pengujian mikroplastik dilakukan di Pusat Karantina Ikan, Kota Kupang. Pengujian logam berat (Pb dan Cu) bertempat di Laboratorium Saraswanti Indo Genetic, Bogor. Penelitian ini menggunakan metode kualitatif dan kuantitatif. Metode kualitatif meliputi, metode survei dan wawancara di lapangan dan metode pengujian di laboratorium yaitu Boume meter, Logam berat (Pb) dan (Cu), Salinitas, mikroplastik. Sedangkan metode kuantitatif melalui teknik pengambilan sampel sebanyak 6 kali pengambilan yaitu pada petak 1, petak 2, petak 3, petak 4, petak 5 dan petak 6 dengan masing-masing pengulangan sebanyak 1 (satu) kali.

Berdasarkan hasil penelitian terhadap Kelimpahan Mikroplastik Pada Garam Krosok Di UD Abaraham Desa Oli'o Kabupaten Kupang diperoleh hasil pengukuran Derajat Baume $^{\circ}\text{Be}$ pada petak pertama 5°Be , Petak kedua 6°Be , Petak ketiga 9°Be , petak keempat 14°Be , petak kelima 20°Be , Petak keenam 25°Be , hasil yang didapatkan pada pengukuran di air bahan baku garam krosok pada petak 6 (Air tua) telah memenuhi baku mutu yaitu 25 – 29 $^{\circ}\text{Be}$. Hasil pengukuran salinitas petak 1 di dapatkan hasil (5,04‰), petak 2 (10,15‰), petak 3 (10,36‰), petak 4 (13,21‰), Petak 5 (20,03‰), petak 6 (27,32‰), hasil ini telah memenuhi standar baku mutu KEP – 51/ MENLH/2004 yaitu maks 30‰. Hasil Pengukuran pH di dapatkan hasil petak 1 (6,81), petak 2 (6,72), petak 3 (7,34), petak 4 (7,56), petak 5, (7,67), petak 6, (7,42) hasil ini telah memenuhi baku mutu KEP – 51/ MENLH/2004 (7,5 – 8,0). Hasil identifikasi Kelimpahan Mikroplastik pada keenam petak di ditemukan 3 jenis mikroplastik yaitu jenis Fragmen (57 partikel), Fiber (37 partikel), dan Film (29 partikel)

Kata kunci: Mikroplastik, Analisis, Garam krosok

SUMMARY

RICHARDO E. MANUEL BULAN (19390021). Analisis of the abundance of Microplastics in Krosok Salt at UD. Abraham, Oli'o Village, Kupang Regency: Analisis of the Abundance of Microplastics in Krosok Salt at UD Abaraham, Oli'o Village, Kupang Regency: YUNIALDI H. TEFFU, S.Pi, M.Si., DEWI S. GADI, S.Pi, M.Si as Supervisor I and Supervisor II. Fisheries Product Technology Study Program, Faculty of Fisheries and Marine Sciences, Artha Wacana Christian University, Kupang.

People's salt making is an activity carried out by the people which has become an annual routine as a means of livelihood. UD. Abaraham, which is located in Oli'o Village, East Kupang District, Kupang Regency, carries out production using krosok salt as the raw material. Microplastics are small pieces of plastic that can pollute the environment. Plastic waste pollution is a threat to current marine conditions, globally the production of plastic waste increases drastically every year. Estimates of world plastic production reached 322 million tons in 2015, of which 5 to 13 million tons are estimated to end up in the aquatic environment. Of course, pollution and overuse have an impact on diversity.

This research was carried out in October-November 2023 at Oli'o Village, Kupang Regency for survey and sampling locations, then tested for Boume meter (oBe), salinity, pH. Microplastic testing is carried out at the Fish Quarantine Center, Kupang City. Testing for heavy metals (Pb and Cu) took place at the Saraswanti Indo Genetic Laboratory, Bogor. This research uses qualitative and quantitative methods. Qualitative methods include survey and interview methods in the field and laboratory testing methods, namely Boume meter, heavy metals (Pb) and (Cu), salinity, microplastics. Meanwhile, the quantitative method uses a sampling technique 6 times, namely on plot 1, plot 2, plot 3, plot 4, plot 5 and plot 6 with each repetition 1 (one) time.

Based on the results of research on the abundance of microplastics in Krosok Salt at UD Abaraham, Oli'o Village, Kupang Regency, the results of measuring the Degree of Baume oBe in the first plot were 5oBe, the second plot was 6oBe, the third plot was 9oBe, the fourth plot was 14oBe, the fifth plot was 20oBe, the sixth plot was 25oBe, the results what was obtained from measurements in the raw material water for krosok salt in plot 6 (old water) met the quality standard, namely 25 – 29 oBe. The results of the salinity measurements for plot 1 were (5.04‰), plot 2 (10.15‰), plot 3 (10.36‰), plot 4 (13.21‰), Plot 5 (20 .03‰), plot 6 (27.32‰), this result meets the KEP – 51/MENLH/2004 quality standards, namely max 30‰. The pH measurement results showed that plot 1 (6.81), plot 2 (6.72), plot 3 (7.34), plot 4 (7.56), plot 5, (7.67), plot 6, (7.42) This result meets the KEP – 51/MENLH/2004 quality standards (7.5 – 8.0). The results of identifying the abundance of microplastics in the six plots found 3 types of microplastics, namely fragments (57 particles), fiber (37 particles), and film (29 particles).

Keywords: Microplastics, Analysis, Krosok salt