

ABSTRAK

SILFI MAULIDATUR ROHMAH, NPM. 190351100002. *Karakteristik Mikroplastik pada Sumber Air Baku Tambak Garam dan Sedimen di Pamekasan dengan Metode FT-IR* di bawah bimbingan **AB. Chandra,M.Si**

Pencemaran plastik di lingkungan perairan telah banyak terjadi akibat semakin beragamnya aktivitas manusia yang membuang limbahnya ke perairan. keberadaan plastik di lingkungan perairan menimbulkan masalah baru yaitu mikroplastik. Mikroplastik adalah plastik yang terdegradasi di alam menjadi partikel plastik berukuran <5 mm. Mikroplastik tersebar luas di perairan laut, dan sedimen. Air laut telah banyak dimanfaatkan oleh manusia salah satunya sebagai air baku pembuatan garam, namun keberadaan mikroplastik di perairan laut dikhawatirkan mempengaruhi kualitas dari garam. Tujuan dari penelitian ini untuk mengetahui kelimpahan, bentuk dan jenis polimer mikroplastik pada air baku garam dan sedimen. Pengambilan sampel air dan sedimen dilakukan di 3 stasiun dengan masing-masing 3 pengulangan. Sampel air diambil sebanyak 50 liter dan sampel sedimen sebanyak 100 gram berat kering. Mikroplastik yang ditemukan pada air baku tambak garam mencapai 2,06-3,32 partikel / L. Mikroplastik yang ditemukan pada sedimen mencapai 0,80-0,85 partikel / g. Bentuk mikroplastik yang ditemukan yaitu fiber, fragmen, dan film. Berdasarkan analisis data dapat disimpulkan bahwa mikroplastik pada air baku tambak garam dan sedimen memiliki hubungan yang cukup kuat dengan makna kelimpahan mikroplastik dalam air dan sedimen memiliki pengaruh sebanyak 44,58% atau cukup signifikan. Jenis polimer yang ditemukan dalam sampel adalah *Polypropylene* (PP), *Polyethylene* (PE), *Polyamide* (PA), *Low Density Polyethylene* (LDPE).

Kata Kunci: Mikroplastik, Air Baku Tambak Garam, Sedimen, FT-IR, Pamekasan

ABSTRACT

SILFI MAULIDATUR ROHMAH, NPM. 190351100002. *Microplastic Characteristics in Salt Pond Raw Water Sources and Sediment in Pamekasan With the FT-IR Method.* Under the guidance of **AB. Chandra,M.Si**

Plastic pollution in the aquatic environment has occurred a lot due to the increasing variety of human activities that dump their waste into the waters. The presence of plastic in the aquatic environment poses a new problem, namely microplastics. Microplastics are plastics that degrade in nature into plastic particles measuring <5 mm. Microplastics are widespread in marine waters, and sediments. Seawater has been widely used by humans, one of which is as raw water for making salt, but the presence of microplastics in marine waters is feared to affect the quality of salt. The purpose of this study is to determine the abundance, shape and type of microplastic polymers in salt raw water and sediments. Water and sediment sampling was carried out at 3 stations with 3 repetitions each. Water samples were taken as much as 50 liters and sediment samples as much as 100 grams of dry weight. Microplastics found in salt pond raw water reached 2.06-3.32 particles / L. Microplastics found in sediments reached 0,80-0,85 particles / g. The forms of microplastics found are fibers, fragments, and films. Based on data analysis, it can be concluded that microplastics in water and sediments have a fairly strong relationship with the meaning of microplastic abundance in water and sediments have an influence of as much as 44,58% or quite significant. The types of polymers found in the samples are Polypropylene (PP), Polyethylene (PE), Polyamide (PA), Low Density Polyethylene (LDPE).

Keyword: *Microplastics, Salt Pond Raw Water, Sediment, FT-IR , Pamekasan*