

ABSTRAK

Sampah plastik merupakan masalah besar bagi Indonesia, karena sampah plastik sulit terurai dan keberadaan plastik terus meningkat setiap tahunnya sehingga menjadi masalah bagi lingkungan. Partikel plastik berdasarkan ukurannya dapat dibagi menjadi 3 kategori yang terdiri dari makroplastik berukuran lebih dari 2,5 cm, mesoplastik berukuran 5 mm hingga 2,5 cm, dan mikroplastik berukuran kurang dari 5 mm. Mikroplastik memiliki sifat yang dapat mengikat patogen dan senyawa kimia berbahaya yang bersifat beracun. Penelitian ini bertujuan untuk mengetahui cemaran mikroplastik pada keong bakau (*Telescopium telescopium*), air dan sedimen di perairan Kabupaten Bangkalan. Pengambilan sampel dilakukan di 3 stasiun dan 9 titik, untuk sampel air diambil sebanyak 50 L, sampel sedimen diambil sebanyak 50 g berat kering dan sampel *Telescopium telescopium* diambil 9 individu dengan ukuran berbeda (3 kecil, 3 sedang dan 3 besar). Sampel tersebut akan diidentifikasi menggunakan *microscope stereo*. Kelimpahan mikroplastik dalam sampel air adalah 42% fiber, 27% fragmen, dan 31% film. Persentase kelimpahan mikroplastik pada sampel sedimen adalah 24% fiber, 40% fragmen, dan 36% film. Kelimpahan mikroplastik pada sampel *Telescopium telescopium* adalah 20% fiber, 44% fragmen, dan 36% film.

Kata Kunci : *Telescopium telescopium*, air, sedimen, mikroplastik, FT-IR.

ABSTRACT

Plastic waste is a big problem for Indonesia, because plastic waste is difficult to decompose and the presence of plastic continues to increase every year so that it becomes a problem for the environment. Plastic particles based on their size can be divided into 3 categories consisting of macroplastics measuring more than 2.5 cm, mesoplastics measuring 5 mm to 2.5 cm, and microplastics measuring less than 5 mm. Microplastics have properties that can bind pathogens and hazardous chemical compounds that are toxic. This study aims to determine microplastic contamination in mangrove snails (Telescopium telescopium), water and sediments in the waters of Bangkalan Regency. Sampling was carried out at 3 stations and 9 points, 50 L of water samples were taken, 50 g dry weight of sediment samples were taken and 9 individuals with different sizes of Telescopium telescopium samples were taken (3 small, 3 medium and 3 large). The sample will be identified using a stereo microscope. The abundance of microplastics in the water samples was 42% fiber, 27% fragments, and 31% films. The percentage of microplastic abundance in the sediment samples was 24% fiber, 40% fragments, and 36% films. The abundance of microplastics in Telescopium telescopium samples was 20% fiber, 44% fragments, and 36% films.

Keyword: *Telescopium telescopium, water, sediment, microplastics, FT-IR.*