Intisari

Kandungan Mikroplastik Pada Saluran Pencernaan Ikan Bawal (*Parastromateus niger* Linnaeus, 1758) Baronang (*Siganus lineatus* Kuiter, 1992*)* dan Tongkol (*Euthynnus affinis* Cantor, 1849*)* di Pantai Sadeng Kabupaten Gunungkidul

Mikroplastik adalah partikel plastik yang berukuran kurang dari 5 mm. Penelitian mikroplastik sudah banyak dilakukan sebelumnya dan hampir semua ditemukan mikroplastik pada ekosistem laut. Penelitian ini bertujuan untuk mengetahui keberadaan mikroplastik berdasarkan bentuk, jenis, ukuran dan warna pada saluran pencernaan ikan. Sampel ikan terdiri dari ikan bawal, baronang dan tongkol yang diperoleh dari tangkapan nelayan di Pantai Sadeng. Ikan dikumpulkan dari bulan April sampai Agustus 2020. Sampel diambil sebanyak 10 ekor sehingga jumlah total keseluruhan sebanyak 30 ekor. Setiap ikan dibedah dan diambil untuk analisis mikroplastik. Setiap usus ikan diekstraksi menggunakan larutan kalium hidroksida (KOH) 10% untuk menghancurkan bahan organik. Hasil ekstraksi diamati dibawah mikroskop dengan perbesaran 40× untuk melihat jenis, keberadaan, dan ukuran mikroplastik. Ikan yang paling banyak mengandung mikroplastik adalah ikan bawal sebanyak 13± 4,5 partikel/ekor, ikan tongkol sebanyak 10,9± 1,2 partikel/ekor kemudian pada ikan baronang ditemukan sebanyak 3,8 ± 1,41 partikel/ekor. Hasil pengamatan diperoleh jenis mikroplastik fiber sebanyak 97% dan jenis film sebanyak 3%. Mikroplastik kecil yang berukuran 1 - 50 µm sebanyak 4%, ukuran 50 - 500 µm atau mikroplastik kecil sebanyak 6% hingga ukuran yang paling dominan yaitu mikroplastik besar dengan ukuran 500 µm-5mm sebanyak 89%. Warna mikroplastik yang dominan adalah warna mikroplastik yang berwarna pekat atau belum mengalami pelunturan warna.

Kata kunci: degradasi, destruksi, digesti, mikroplastik, pencemaran.

Abstract

Microplastic Content in The Digestive Channel of Pomfret (*Parastromateus niger Linnaeus*, 1758) Baronang (*Siganus lineatus Kuiter*, 1992) and Mackarel Tuna (*Euthynnus affinis Cantor*, 1849) at Sadeng Beach, Gunungkidul Regency

Microplastics are plastic particles that are less than 5 mm in size. Many researches on microplastics have been carried out before and almost all microplastics have been found in marine ecosystems. This study aims to determine the presence of microplastics based on the shape, type, size and color in the digestive tract of fish. Fish samples consisted of pomfret, baronang and tuna obtained from the catch of fishermen in Sadeng Beach. Fish were collected from April to August 2020. As many as 10 samples were taken so that the total number of fish was 30 individuals. Each fish was dissected and taken for microplastic analysis. Each fish intestine was extracted using a 10% potassium hydroxide (KOH) solution to destroy organic matter. The extraction results were observed under a microscope with a magnification of 40x to see the type, presence, and size of microplastics. The fish containing the most microplastics were pomfret as much as 13 ± 4.5 particles/head, tuna fish as much as 10.9 ± 1.2 particles/head then the baronang fish found as many as 3.8 ± 1.41 particles/head. The observation results obtained that the type of microplastic fiber as much as 97% and the type of film as much as 3%. 4% of small microplastics measuring 1 - 50 m in size, 50 - 500 m or small microplastics as much as 6% until the most dominant size is large microplastics with a size of 500 m-5mm as much as 89%. The dominant color of microplastics is the color of microplastics that are densely colored or have not experienced color fading.

Keywords: degradation, destruction, digestion, microplastic, pollution.