

Analisis Kelimpahan Mikroplastik pada Insang dan Saluran Pencernaan Ikan Mujair *Oreochromis mossambicus* (Peters, 1852) dan Ikan Setan Merah *Amphilophus labiatus* (Günther, 1864) di Situ Salam, Kampus Universitas Indonesia, Depok = Abundance Analysis of Microplastic in Gill and Digestive Tract of Tilapia Fish *Oreochromis mossambicus* (Peters, 1852) and Red Devil Fish *Amphilophus labiatus* (Günther, 1864) in Salam Lake, Universitas Indonesia Campus, Depok

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Abstrak

Telah dilakukan penelitian yang bertujuan untuk menganalisis bentuk dan kelimpahan mikroplastik pada air, insang, dan saluran pencernaan ikan mujair *Oreochromis mossambicus* dan ikan setan merah *Amphilophus labiatus* yang terdapat di Situ Salam, Kampus Universitas Indonesia, Depok. Sampel air diambil sebanyak 20 L lalu disaring menggunakan plankton net sampai volume air menjadi 200 ml sementara sampel ikan mujair dan ikan setan merah diambil masing-masing 10 ekor dengan jala lalu disimpan di wadah penyimpanan berisi formalin 40%. Ekstraksi sampel dilakukan di Laboratorium Biologi Kelautan, Departemen Biologi, FMIPA UI dengan metode destruksi oleh HNO₃ 65% kemudian dilakukan analisis bentuk dan kelimpahan mikroplastik di bawah mikroskop. Hasil penelitian menunjukkan, rata-rata total kelimpahan mikroplastik pada air diperoleh $153,7 \pm 44,2$ partikel L-1, pada saluran pencernaan ikan mujair diperoleh $2.868 \pm 723,5$ partikel ind-1, pada saluran pencernaan ikan setan merah diperoleh $3.548,4 \pm 1031,4$ partikel ind-1, pada insang ikan mujair diperoleh $3.782,6 \pm 1.171,6$ partikel ind-1, dan pada insang ikan setan merah diperoleh $3.848 \pm 863,1$ partikel ind-1. Bentuk mikroplastik yang mendominasi pada air situ, saluran pencernaan, dan insang adalah bentuk fiber. Berdasarkan hasil Uji T Dua Sampel terhadap sampel insang dan pencernaan dari ikan mujair dan ikan setan merah menunjukkan tidak ada perbedaan signifikan.

.....Research has been carried out that aims to analyze the shape and microplastics in the water, gills, and digestive tract of tilapia fish *Oreochromis mossambicus* and red devil fish *Amphilophus labiatus* that found in Salam Lake, University of Indonesia Campus, Depok. Water samples were taken as much as 20 L and then filtered using a plankton net until the water volume became 200 ml while samples of tilapia fish and red devil fish were taken each with a net and stored in a storage container containing formalin 40%. Sample extraction was carried out at the Marine Biology Laboratory, Department of Biology, FMIPA UI with the destruction method by HNO₃ 65% and then analyzed the shape and abundance of microplastics under a microscope. The results showed that the average total abundance of microplastics in water was $153,7 \pm 44,2$ L-1 particles, in the digestive tract of tilapia fish it was obtained $2.868 \pm 723,5$ ind-1 particles, in the digestive tract of red devil fish obtained $3.548,4 \pm 1.031,4$ ind-1 particles, in the gills of tilapia fish obtained $3.782,6 \pm 1.171,6$ ind-1 particles, and in the gills of red devil fish obtained $3.848 \pm 863,1$ particles ind-1. The predominant form of microplastic in the water, digestive tract, and gills is the form of fiber. Based on the results of the Two-Sample T-Test on gill and digestive samples of tilapia fish and red devil fish, there is no significant difference.