

ABSTRACT

Cahyo Ade Nugroho. 24020120120033. **Microplastics Content in Milkfish (*Chanos chanos*) and Green Mussels (*Perna viridis*) in the Coastal Area of Tambakrejo Semarang.** Under the guidance of Riche Hariyati and Fuad Muhammad.

Changes in people's lifestyles and the increasing human population have caused high demand for plastic use, so that the high production of plastic will have an impact on the waste produced by the community, especially plastic waste. Plastic that enters the environment can break down into small particles in the form of microplastics that can be spread in waters, sediments and can even accumulate in biota. This study aims to identify the content and types of microplastics in seawater, sediments, milkfish and green mussels and to analyze the correlation between microplastic density and variations in body length of milkfish and shell length of green mussels. Samples were obtained from 3 different research stations based on their area categories. Microplastic analysis was carried out by isolating microplastics from samples. In milkfish and green mussels, samples were isolated by dissolving them in a 10% KOH solution which was incubated for 24 hours at a temperature of 600C. For seawater and sediment samples, 150ml of saturated NaCl solution was added to increase the density of the solution and to separate them through differences in density. Furthermore, Pearson correlation test data analysis was carried out using SPSS software to determine the correlation of microplastic density with variations in body length of milkfish and green mussels. The results obtained in milkfish samples showed that the average density of microplastics at each size of 20-30cm, 31-40cm and 41-50cm was 0.26; 0.37 and 0.56 particles/gr. The green mussel samples showed that the average abundance of microplastics at each size of 3-5cm, 6-8cm and 9-11cm was 2.5; 3.4 and 3.6 particles/gr. The total density of microplastics in seawater and sediment samples was 122.56 particles/liter of seawater and 41.19 particles/gram of sediment. There is a positive correlation between the abundance of microplastics and variations in body length of milkfish and green mussels.

Keyword : *microplastics, Chanos chanos, Perna viridis, Tambakrejo*