**A STUDY ON CHARACTERIZATION OF MICROPLASTICS IN BRACKISH WATER IN HAGONOY, BULACAN**

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**Abstract**

Microplastics are minuscule plastic particles, typically measuring less than 5 millimeters in size, originating from the degradation of larger plastic items or manufactured intentionally at a small scale. Human activities and improper waste disposal contribute to the accumulation of microplastics in surface waters. This qualitative study employs an experimental design and descriptive approach to characterize microplastics based on color and shape, key factors in identifying their possible sources. The research focuses on analyzing microplastics in the brackish water sources of Hagonoy, Bulacan. Water samples were collected from designated sites, 50 mL of water samples were then poured in a beaker, then 20 mL of 12% H2O2 were added and mixed with a stirring rod. Mixture must be set aside for 2 hours in order to degrade the small organic particles. Samples were collected using a dropper and examined using microscopy under proper lighting. Salinity levels were also assessed using a refractometer to confirm the brackish nature of the water source. Results have shown that microplastics are present on brackish waters of Hagonoy, Bulacan. The study concludes that microplastics are significantly present in these waters, and the sampled freshwater river and stream exhibit brackish characteristics in Hagonoy, Bulacan.