

## PHOTO GALLERY



Plate 1. Manta net



Plate 2. Net towing



Plate 3. Sample collection



Plate 4. Sieving



Plate 5. Sample collection



Plate 6. Drying

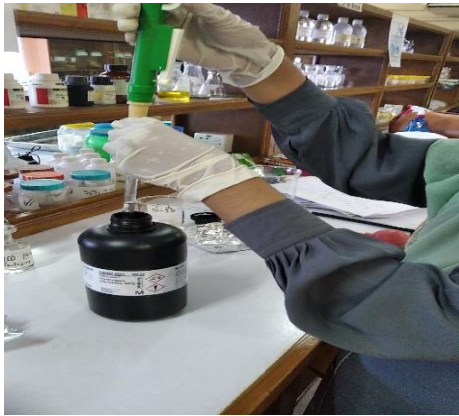


Plate 7. Adding  $H_2O_2$



Plate 8. Heating



Plate 9. Adding  $ZnCl_2$  solution to the sample



Plate 10. Pouring the sample into density separator



Plate 11. Collection of separated sample



Plate 12. Filtration



Plate 13. Visual identification

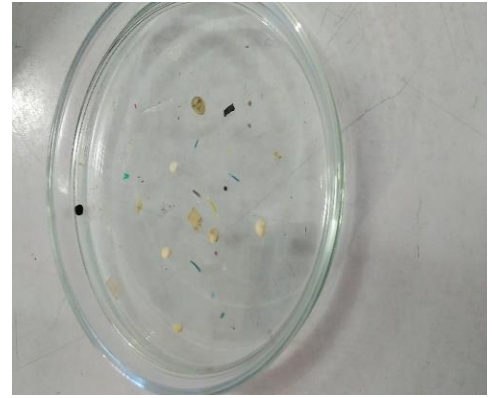


Plate 14. Visually identified microplastics



Plate 15. Microscopic identification



Plate 16. Red elongated filament

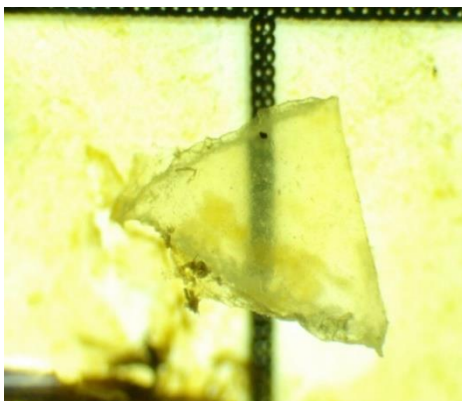


Plate 17. Transparent angular film

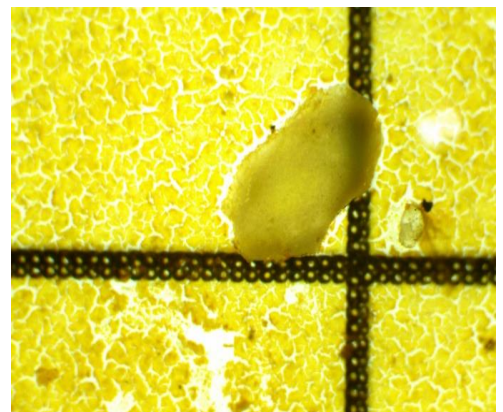


Plate 18. White Irregular foam



Plate 19. White round pellet

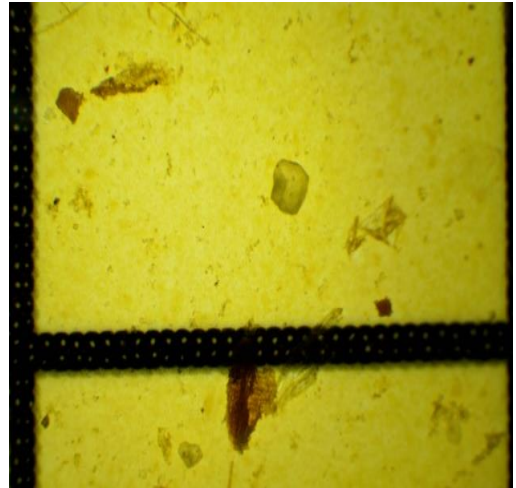


Plate 20. Brown irregular granule

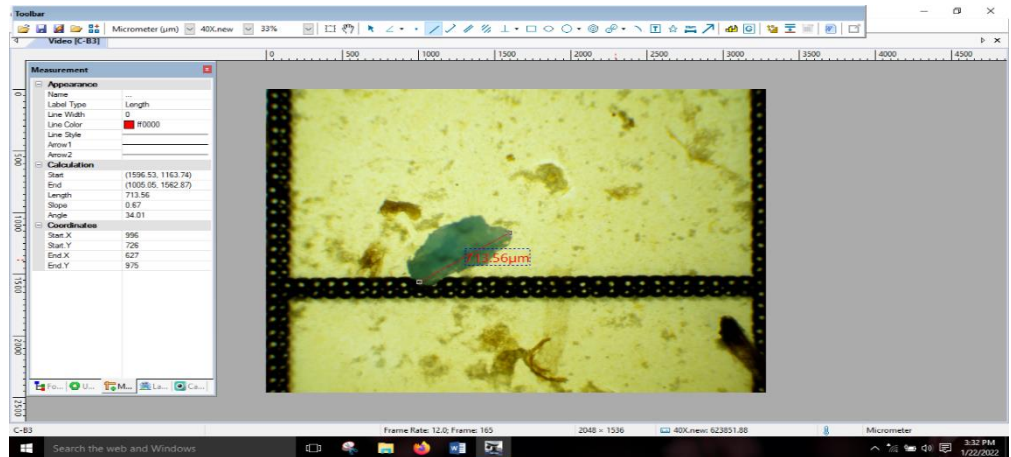


Plate 21. Size measurement

## APPENDICES

### Appendix 1: One-way analysis of monthly variations of total microplastics abundance

<b>ANOVA</b>					
Abundance					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	208801851851.9	7.0	29828835978.8	3.3	0.0
Within Groups	2498614814814.8	280.0	8923624338.6		
Total	2707416666666.7	287.0			

### Appendix 2: Seasonal variation of total microplastics abundance analyzed by independent t-test

<b>Independent Samples Test</b>										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff	SE Diff	95% Confidence Interval of the Difference	
									Lower	Upper
Abundance	Equal variances assumed	17.3	0.0	3.8	286.0	0.0	42129.6	11192.5	20099.4	64159.8
	Equal variances not assumed			3.8	268.1	0.0	42129.6	11192.5	20093.2	64166.1

**Appendix 3:** One-way analysis of microplastic abundance variations by type

ANOVA					
Abundance					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1835440755550.9	5.0	367088151110.2	118.7	0.0
Within Groups	871975927974.1	282.0	3092113219.8		
Total	2707416683525.0	287.0			

**Appendix 4:** Seasonal variations of microplastic abundance by type analyzed by independent t-test

Independent Samples Test										
Type		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	SE Diff.	95% Confidence Interval of the Diff.	
									Lower	Upper
Fragment	Equal variances assumed	0.37	0.54	2.24	46.00	0.03	48055.56	21443.40	4892.23	91218.89
	Equal variances not assumed			2.24	45.29	0.03	48055.56	21443.40	4874.06	91237.05

Filament	Equal variances assumed	0.07	0.79	3.92	46.00	0.00	79166.67	20175.61	38555.27	119778.06
	Equal variances not assumed			3.92	45.56	0.00	79166.67	20175.61	38544.71	119788.63
Film	Equal variances assumed	15.17	0.00	4.61	46.00	0.00	75000.00	16263.65	42262.98	107737.02
	Equal variances not assumed			4.61	32.93	0.00	75000.00	16263.65	41908.75	108091.25
Foam	Equal variances assumed	13.34	0.00	3.12	46.00	0.00	31111.11	9962.02	11058.61	51163.61
	Equal variances not assumed			3.12	36.17	0.00	31111.11	9962.02	10910.45	51311.77
Granule	Equal variances assumed	22.26	0.00	3.88	46.00	0.00	12222.22	3151.23	5879.13	18565.31
	Equal variances not assumed			3.88	26.74	0.00	12222.22	3151.23	5753.51	18690.93
Pellet	Equal variances assumed	6.41	0.01	3.24	46.00	0.00	7222.22	2226.75	2740.01	11704.43
	Equal variances not assumed			3.24	40.08	0.00	7222.22	2226.75	2722.08	11722.36

## **BIOGRAPHY**

This is Zannatul Bakeya, daughter of Ataul Hoque and Khaleda Begum, Chakaria, Cox's Bazar, Bangladesh. She passed the Secondary School Certificate Examination in 2012 from Chakaria Central High School, followed by the Higher Secondary Certificate Examination in 2014 from Cox's Bazar Govt. College. She graduated in 2019 with a B. Sc. in Fisheries (Hons.) degree from the Faculty of Fisheries, Chattogram Veterinary and Animal Sciences University (CVASU), Chattogram, Bangladesh. She is now a candidate for the degree of MS under the Department of Fisheries Resource Management, Faculty of Fisheries, Chattogram Veterinary and Animal Sciences University, Chattogram, Bangladesh.