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LAMPIRAN

LAMPIRAN

Lampiran 1. Dokumentasi kegiatan penelitian

Proses pengambilan sampel kerang hijau di Perairan Mandalle



Proses Pengukuran morfometrik dan penimbangan bobot kerang hijau



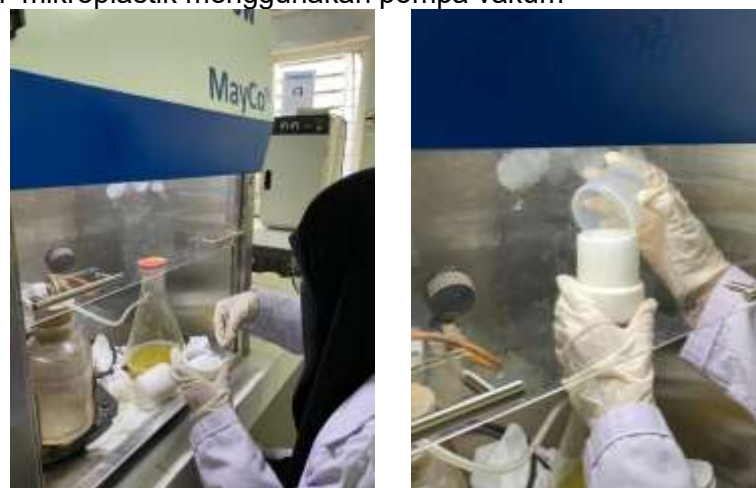
Proses pencampuran larutan *KOH* 20%



Proses *laminar flow* sederhana terhadap insang kerang hijau



Proses filtrasi mikroplastik menggunakan pompa vakum



Proses pengamatan mikroplastik



Proses uji polimer menggunakan FTIR terhadap insang kerang hijau



Lampiran 2. Data mikroplastik yang ditemukan pada insang kerang hijau di Perairan Mandalle

Kelompok panjang	No Sampel	Komposisi Mikroplastik			Perbesaran
		Bentuk	Warna	Ukuran (mm)	
Kecil (2-3,9 mm)	S1	Fiber	Transparan	0,243	4.0
	S2	Fiber	Biru	1,446	
	S5	Fiber	Transparan	0,738	
		Fiber	Transparan	1.240	
	S7	Fiber	Transparan	0.898	
		Fiber	Transparan	1.632	
		Fiber	Transparan	1.007	
		Fiber	Transparan	1.054	
		Fiber	Biru	0,496	
	S8	Fiber	Transparan	0.704	
		Fiber	Transparan	4,994	
		Fragmen	Transparan	0.122	
		Fragmen	Transparan	0.218	
	S10	Fiber	Transparan	2,524	
	S12	Fiber	Biru	0.683	
	S14	Fiber	Transparan	1,036	
	S15	Fiber	Transparan	0,224	
		Fiber	Merah	0,424	
	S16	Fiber	Biru	0.282	
	S17	Fiber	Hitam	1.047	
		Fiber	Hitam	1,218	
		Fiber	Hitam	0.433	
		Fiber	Biru	0.129	
	S19	Fiber	Hitam	0.474	
	S20	Fiber	Merah	0.173	
		Fiber	Biru	0.847	
	S21	Fragmen	Transparan	0.331	
	S22	Fragmen	Transparan	0.515	
	S23	Fragmen	Transparan	0.884	
	S26	Fiber	Transparan	1.204	
S28	Fiber	Transparan	0.260		
S29	Fiber	Transparan	0.676		
S30	Fiber	Transparan	0.975		
S32	Fiber	Transparan	3.733		
S33	Fiber	Transparan	3.312		
	Fiber	Transparan	2.140		
Sedang (4-5,9 mm)	S1	Fiber	Hitam	0.398	4,5
		Fiber	Transparan	1.962	
		Fiber	Merah	0.211	
	S2	Fragmen	Hitam	0.379	
		Fiber	Hitam	0.995	

	Fiber	Transparan	0.318
S3	Fiber	Transparan	1.558
	Fiber	Transparan	0.418
S4	Fiber	Biru	0.569
S5	Fiber	Merah	1.503
S6	Fiber	Transparan	0.748
S7	Fiber	Transparan	2.345
S8	Fiber	Transparan	0.859
S9	Fiber	Biru	0.721
S11	Fiber	Merah	1.728
S13	Fiber	Merah	3.057
	Fiber	Biru	0.366
S14	Fiber	Merah	0.472
	Fiber	Biru	0.398
	Fiber	Biru	0.461
S15	Fragmen	Fragmrn	0.772
S16	Fiber	Biru	3.275
S18	Fiber	Transparan	1.951
	Fiber	Transparan	2.397
	Fiber	Transparan	0.333
	Fiber	Biru	0.754
S20	Fiber	Biru	0.984
S21	Fiber	Hitam	1.234
	Fiber	Hitam	0.972
S23	Fiber	Transparan	2.836
	Fiber	Transparan	0.939
S24	Fragmen	Transparan	0.754
S25	Fiber	Transparan	1.316
	Fiber	Biru	2.432
	Fiber	Biru	3.137
S26	Fiber	Merah	0.717
S27	Fiber	Biru	0.572
S28	Fiber	Biru	0.253
S29	Fragmen	Transparan	0.273
	Fiber	Biru	0.912
S30	Fiber	Transparan	1.542
	Fiber	Biru	1.143
S31	Fragmen	Transparan	2.056
	Fragmen	Transparan	0.993
	Fragmen	Transparan	0.497
S32	Filem	Transparan	1770
	Filem	Transparan	2020
	Fragmen	Transparan	0.216
	Fiber	Merah	1419
S33	Fiber	Transparan	2944

		Fiber	Transparan	0.453	
		Fiber	Transparan	1.309	
		Fiber	Transparan	0.703	
		Fiber	Biru	0.113	
		Fiber	Biru	0.161	
Besar (6-7,9)	S1	Fiber	Transparan	2.204	4,5
		Fiber	Transparan	1.093	
		Fiber	Transparan	0.678	
		Fiber	Transparan	0.674	
		Fiber	Merah	0.363	
	S6	Fragmen	Transparan	0.194	
		Fragmen	Transparan	0.453	
		Fragmen	Transparan	0.571	
	S10	Fragmen	Transparan	0.378	
		Fragmen	Transparan	0.657	
		Fiber	Transparan	0.503	
		Fiber	Transparan	1.076	
		Fiber	Transparan	0.948	
	S11	Fragmen	Transparan	1.193	
	S13	Fiber	Transparan	1.576	
		Fiber	Transparan	0.807	
	S14	Fiber	Biru	1.900	
		Fiber	Biru	0.525	
	S16	Fiber	Transparan	0.411	
		Fiber	Transparan	0.495	
		Fiber	Hitam	0.564	
	S18	Fiber	Transparan	1.723	
		Fiber	Transparan	1.723	
		Fiber	Transparan	0.809	
		Fiber	Transparan	0.868	
	S19	Fiber	Transparan	0.799	
		Fiber	Transparan	0.809	
		Fiber	Transparan	0.528	
	S20	Fiber	Transparan	1.504	
		Fiber	Transparan	0.615	
		Fiber	Transparan	0.300	
		Fragmen	Transparan	0.341	
S21	Fiber	Transparan	1.034		
	Fiber	Transparan	0.435		
	Fiber	Transparan	0.354		
S22	Fiber	Transparan	0.707		
	Fiber	Transparan	0.266		
S23	Fiber	Transparan	1.121		
S24	Fiber	Transparan	0.845		
	Fragmen	Transparan	0.398		

S25	Fragmen	Transparan	1.392
S27	Fragmen	Transparan	1.078
S28	Fragmen	Transparan	0.251
S30	Fragmen	Transparan	2.279
S31	Fragmen	Transparan	2.733
S32	Fragmen	Transparan	1.842
	Fragmen	Transparan	0.370
S33	Fragmen	Transparan	1.804

Lampiran 3. Uji statistik

a. Uji Kruskal-Wallis konsentrasi mikroplastik total

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	48.98	Yes	**	0.0100	A-B	
Kecil vs. Besar	48.98	Yes	**	0.0053	A-C	
Sedang vs. Besar	31.70	No	ns	>0,9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	48.98	31.70	17.28	23	28	2.935
Kecil vs. Besar	48.98	29.24	19.74	23	21	3.126
Sedang vs. Besar	31.70	29.24	2.458	28	21	0.4070

Number of values	22	28	21
Minimum	3,448	1,724	1,266
Maximum	40	15	33,33
Range	36,55	13,28	32,07
Mean	12,11	5,55	5,96
Std. Deviation	10,14	3,76	6,92
Std. Error of Mean	2,161	0,7113	1,51

b. Uji Kruskal-Wallis bentuk (serat)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	21.89	Yes	***	0.0002	A-B	
Kecil vs. Besar	21.09	Yes	**	0.0011	A-C	
Sedang vs. Besar	-0.8011	No	ns	>0.9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	31,88	17,2	14,68	8	25	2,385
Kecil vs. Besar	31,88	36,47	-4,599	8	19	0,7204
Sedang vs. Besar	17,2	36,47	-19,27	25	19	4,181

Number of values	8	25	19
Minimum	3,448	1,724	3,448
Maximum	16,67	12	38,46
Range	13,22	10,28	35,01

Mean	12.07	4.715	5.909
Std. Deviation	8.555	3.131	7.268
Std. Error of Mean	1.963	0.6262	1.713

c. Uji *Kruskal-Wallis* bentuk (serpihan)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	4,393	No	ns	0,4212	A-B	
Kecil vs. Besar	5,85	No	ns	0,1998	A-C	
Sedang vs. Besar	1,457	No	ns	>0,9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	12,25	7,857	4,393	4	7	1,474
Kecil vs. Besar	12,25	6,4	5,85	4	5	1,834
Sedang vs. Besar	7,857	6,4	1,457	7	5	0,5235

Number of values	4	7	5
Minimum	5,263	1,818	1,299
Maximum	20	15	6,977
Range	14,74	13,18	5,678
Mean	9.267	5.349	3.518
Std. Deviation	7.167	4.842	2.339
Std. Error of Mean	3.584	1.830	1.046

d. Uji *Kruskal-Wallis* warna (Hitam)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	2,167	No	ns	0,6137	A-B	
Kecil vs. Besar	-0,5	No	ns	>0,9999	A-C	
Sedang vs. Besar	-2,667	No	ns	0,6511	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	4,5	2,333	2,167	2	3	1,269
Kecil vs. Besar	4,5	5	-0,5	2	1	0,2182
Sedang vs. Besar	2,333	5	-2,667	3	1	1,234

Hitam			
Number of values	2	3	1
Minimum	3,846	2,083	11,11

Maximum	17,65	10	11,11
Range	13,8	7,917	0
Mean	10,75	5,26	11,11
Std. Deviation	9,76	4,18	0,00
Std. Error of Mean	6,9	2,415	0

e. Uji *Kruskal-Wallis* warna (Putih)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	16,62	Yes	**	0,0049	A-B	
Kecil vs. Besar	13,78	Yes	*	0,022	A-C	
Sedang vs. Besar	-2,831	No	ns	>0,9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	36,97	20,35	16,62	16	17	3,149
Kecil vs. Besar	36,97	23,18	13,78	16	19	2,681
Sedang vs. Besar	20,35	23,18	-2,831	17	19	0,5597

Number of values	16	17	19
Minimum	3,448	0	1,266
Maximum	40	15	22,22
Range	36,55	15	20,96
Mean	11,37	4,35	5,49
Std. Deviation	10,15	3,68	4,97
Std. Error of Mean	2,54	0,89	1,14

f. Uji *Kruskal-Wallis* warna (Merah)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	4,786	No	ns	0,144	A-B	
Kecil vs. Besar	6,5	No	ns	0,2361	A-C	
Sedang vs. Besar	1,714	No	ns	>0,9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	9,5	4,714	4,786	2	7	1,977
Kecil vs. Besar	9,5	3	6,5	2	1	1,758
Sedang vs. Besar	4,714	3	1,714	7	1	0,5313

Number of values	2	7	1
Minimum	7,692	1,724	2,128
Maximum	7,692	3,846	2,128

Range	0	2,122	0
Mean	7,69	2,82	2,13
Std. Deviation	0,00	0,71	0,00
Std. Error of Mean	0,00	0,27	0,00

g. Uji *Kruskal-Wallis* warna (Biru)

Number of families	1					
Number of comparisons per family	3					
Alpha	0,05					
Dunn's multiple comparisons test	Mean rank diff,	Significant?	Summary	Adjusted P Value		
Kecil vs. Sedang	9,929	Yes	**	0,003	A-B	
Kecil vs. Besar	8	No	ns	0,6946	A-C	
Sedang vs. Besar	-1,929	No	ns	>0,9999	B-C	
Test details	Mean rank 1	Mean rank 2	Mean rank diff,	n1	n2	Z
Kecil vs. Sedang	18	8,071	9,929	6	14	3,287
Kecil vs. Besar	18	10	8	6	1	1,196
Sedang vs. Besar	8,071	10	-1,929	14	1	0,301

Number of values	6	14	1
Minimum	5,556	0	3,279
Maximum	12,5	7,692	3,279
Range	6,944	7,692	0
Mean	7,94	3,28	3,28
Std. Deviation	2,49	1,70	0,00
Std. Error of Mean	1,02	0,45	0,00